Table of Contents

As filed with the Securities and Exchange Commission on May 21, 2018

Registration No. 333-

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

Electrocore, LLC*

(Exact name of Registrant as specified in its charter)

Delaware	3845	20-345-4976
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

150 Allen Road, Suite 201
Basking Ridge, New Jersey 07920
(973) 290-0097
(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

Francis R. Amato
Chief Executive Officer
Electrocore, LLC
150 Allen Road, Suite 201
Basking Ridge, New Jersey 07920
(973) 290-0097
(Name, address, including zip code, and telephone number, including area code, of agent for service)

with copies to:

John L. Cleary, II, Esq. **Ira L. Kotel, Esq.** **Dentons US LLP** **1221 Avenue of the Americas** **New York, New York 10020** **(212) 768-6700**	**Peter N. Handrinos, Esq.** **Nathan Ajiashvili, Esq.** **Latham & Watkins LLP** **200 Clarendon Street** **Boston, Massachusetts 02116** **(617) 948-6000**

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this Registration Statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933 check the following box: ☐

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.:

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒ (do not check if a smaller reporting company)	Smaller reporting company	☐
		Emerging growth company	☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided to Section 7(a)(2)(B) of the Securities Act. ☒

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Proposed Maximum Aggregate Offering Price[(1)(2)]	Amount of Registration Fee
Common Stock, par value $0.001 per share	$74,750,000	$9,306.38

(1) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) under the Securities Act.
(2) Includes the estimated aggregate offering price of the shares issuable upon exercise of the underwriters' option to purchase additional shares from us. See "Underwriting."
* Prior to the closing of the offering to which this Registration Statement relates, a corporate conversion will be effected such that the issuer of the common stock to be registered pursuant to this Registration Statement will be a Delaware corporation named electroCore, Inc.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

EXPLANATORY NOTE

Electrocore, LLC, the registrant whose name appears on the cover of this registration statement, is a Delaware limited liability company. Prior to the closing of this offering, Electrocore, LLC intends to convert into a Delaware corporation pursuant to a statutory conversion and change its name to electroCore, Inc. As a result of the corporate conversion, the holders of units of Electrocore, LLC will become holders of common stock and options to purchase common stock of electroCore, Inc. Holders of warrants to purchase units of Electrocore, LLC will become holders of warrants to purchase common stock of electroCore, Inc. See “Corporate Conversion.” Except as disclosed in the accompanying prospectus, the consolidated financial statements and selected historical consolidated financial data and other financial information included in this registration statement are those of Electrocore, LLC and do not give effect to the corporate conversion.

Table of Contents

The information in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities and it is not soliciting offers to buy these securities in any state where the offer or sale is not permitted.

Subject to Completion, Dated May 21, 2018

Shares

ELECTROCORE, INC.

Common Stock

- electroCore, Inc. is offering shares of its common stock.
- The initial public offering price of our common stock is expected to be between $ and $ per share.
- This is our initial public offering and no public market currently exists for our common stock.
- We have applied for the listing of our common stock on The Nasdaq Global Select Market under the symbol "ECOR."

Investing in our common stock involves risks. See "Risk Factors" beginning on page 13 to read about factors you should consider before buying shares of our common stock.

We are an ''emerging growth company'' as defined under the U.S. federal securities laws and, as such, intend to comply with certain reduced public company reporting requirements for this and future filings.

	Per Share	Total
Initial public offering price	$	$
Underwriting discounts and commissions[1]	$	$
Proceeds, before expenses, to electroCore, Inc.	$	$

[1] We have agreed to reimburse the underwriters for certain expenses. We refer you to "Underwriting" for additional disclosure regarding total underwriting compensation.

The underwriters have an option to purchase a maximum of additional shares to cover over-allotments.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

Delivery of the shares of common stock will be made on or about , 2018.

Piper Jaffray **Evercore ISI**

JMP Securities

The date of this prospectus is , 2018

TABLE OF CONTENTS

Neither we nor the underwriters have authorized anyone to provide you with any information other than that contained in this prospectus, any amendment or supplement to this prospectus or in any free writing prospectus we may authorize to be delivered or made available to you. The underwriters and we take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We and the underwriters are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where offers and sales are permitted. The information contained in

this prospectus is current only as of the date on the front of this prospectus, regardless of the time of delivery of this prospectus or any sale of shares of our common stock. Our business, financial condition, results of operations and prospects may have changed since that date.

For investors outside the United States: We have not, and the underwriters have not, done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the shares of common stock and the distribution of this prospectus outside the United States.

MARKET DATA AND FORECASTS

Unless otherwise indicated, information in this prospectus concerning economic conditions, our industry, and our markets, including our general expectations and competitive position, market opportunity and market size, is based on a variety of sources, including information from independent industry analysts and publications, as well as our own estimates and research.

Our estimates are derived from industry and general publications, studies and surveys conducted by third-parties, as well as data from our own internal research. These publications, studies and surveys generally indicate that their information has been obtained from sources believed to be reliable, although they do not guarantee the accuracy or completeness of such information, and we have not independently verified industry data from such third-party sources. While we believe our internal research is reliable and that our internal estimates are reasonable, such research has not been verified by any independent source and our internal estimates are based on our good faith beliefs as of the respective dates of such estimates. We are responsible for all of the disclosure in this prospectus.

FINANCIAL STATEMENT PRESENTATION

The financial statements for the years ended December 31, 2017 and 2016, and as of and for the three months ended March 31, 2018 and 2017, represent the operations of Electrocore, LLC and its subsidiaries and affiliate. Prior to the closing of this offering, we will complete a corporate conversion pursuant to which electroCore, Inc. will succeed to the business of Electrocore, LLC and its consolidated subsidiaries and affiliate, and the unitholders of Electrocore, LLC will become stockholders and option holders of electroCore, Inc., as described under the heading “Corporate Conversion.” In this prospectus, we refer to this transaction as the “corporate conversion.” We expect that our conversion from a Delaware limited liability company to a Delaware corporation will not have a material effect on our consolidated financial statements at the time of the corporate conversion.

TRADEMARKS AND TRADENAMES

This prospectus includes our trademarks such as electroCore®, gammaCore® and gammaCore Sapphire™ which are protected under applicable intellectual property laws and are the property, prior to the corporate conversion discussed herein, of Electrocore, LLC, and after the corporate conversion, of electroCore, Inc. Solely for convenience, trademarks, service marks and tradenames referred to in this prospectus may appear without the ®, ™ or SM symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the right of the applicable licensor to these trademarks, service marks and tradenames. This prospectus may also contain trademarks, service marks, tradenames and copyrights of other companies, which are the property of their respective owners.

GLOSSARY

A glossary of scientific and technical terms used throughout this prospectus is included beginning on page 151.

ABOUT THIS PROSPECTUS

Except where the context otherwise requires or where otherwise indicated, the terms “electroCore,” “we,” “us,” “our,” “our company,” and “our business” refer, prior to the corporate conversion discussed herein, to Electrocore, LLC, and after the corporate conversion, to electroCore, Inc.

PROSPECTUS SUMMARY

This summary highlights certain information about us and this offering contained elsewhere in this prospectus. Because it is only a summary, it does not contain all the information that you should consider before investing in shares of our common stock and it is qualified in its entirety by, and should be read in conjunction with, the more detailed information appearing elsewhere in this prospectus. Before you decide to invest in our common stock, you should read the entire prospectus carefully, including "Risk Factors" beginning on page 13 and our consolidated financial statements and the accompanying notes included in this prospectus.

Overview

We are a commercial-stage bioelectronic medicine company with a platform non-invasive vagus nerve stimulation therapy initially focused on neurology and rheumatology. Our therapy, gammaCore, has pharmacologic effects on the peripheral and central nervous systems, which modulate neurotransmitters and immune function. gammaCore is FDA-cleared for the acute treatment of pain associated with migraine and episodic cluster headache in adults. In order to generate advocacy among physicians and patient demand in the form of prescriptions submitted to payors, we recently initiated a product registry for episodic cluster headache. Having established a base of advocacy among key opinion leaders in the headache field through the product registry, our strategy is to commercially launch in migraine and episodic cluster headache in the third quarter of 2018. Based on our clinical data, we are pursuing label expansions for the prevention of migraine, migraine in adolescents and post-traumatic headache, and are also engaging in clinical development for potential new labeling claims in rheumatology, including Sjôgren's syndrome and rheumatoid arthritis.

gammaCore is the first FDA-cleared, prescription-only vagus nerve stimulation, or VNS, therapy administered in discrete doses using a proprietary, simple-to-use handheld delivery system. Multiple published studies suggest that VNS works through the modulation of neurotransmitters, and has a measurable pharmacologic effect similar to several classes of medications, including selective serotonin reuptake inhibitors, serotonin norepinephrine reuptake inhibitors, GABA analogues, acetylcholine esterase inhibitors and triptan medications, all of which are commonly prescribed. gammaCore activates those fibers in the vagus nerve which are therapeutically relevant for neurotransmitter modulation. This is enabled by our proprietary high-frequency burst waveform that safely and comfortably passes through the skin and stimulates the targeted nerve fibers. Research also indicates that VNS, including gammaCore, modulates the immune system to produce a measurable effect on inflammatory cytokines, as measured in blood samples, comparable to medications that inhibit these cytokines.

Background of Vagus Nerve Stimulation

The vagus nerve is the largest and most extensive cranial nerve, connecting the brainstem to nearly every organ in the chest and abdomen, including the heart, lungs, liver, stomach, spleen, kidneys, and digestive tract. Over the past two decades, the body of scientific evidence in support of VNS in multiple medical conditions has been growing. However, this potential has remained unfulfilled because the therapy could only be delivered using electrodes affixed to the vagus nerve, connected to a signal generator implanted in the chest wall. To implant these devices, the vagus nerve must be surgically exposed from its anatomical position entwined with the carotid artery.

Our Therapy Delivery Platform

gammaCore stimulates the vagus nerve through a simple-to-use handheld delivery system dispensing therapy on a 31-day prescription basis and, like medications delivered by metered-dose inhalers, patients self-administer discrete doses. Our delivery platform enables access to VNS for a much broader patient

population than previously possible, making it a potential preferred treatment option. gammaCore's successor, gammaCore Sapphire, is a rechargeable and reloadable version of our product intended for multi-year use. It is activated on a monthly basis through the input of a unique, prescription-only authorization code, delivered via a radio-frequency identification, or RFID, card. In the future, this authorization code may be delivered through the internet, leveraging the Bluetooth capabilities of gammaCore Sapphire.

Competitive Strengths

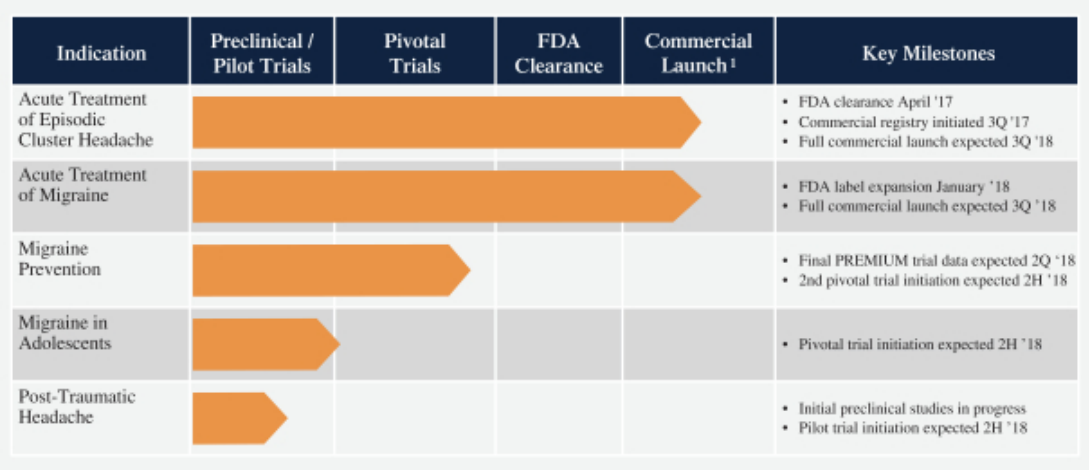
We believe the competitive strengths of our company and our novel and proprietary self-administered bioelectronic therapy include:

- ***Innovative bioelectronic medicine approach.*** Our gammaCore therapy uses a proprietary electric signal to safely deliver bioelectronic medicine, which causes targeted pharmacologic-like changes in neurotransmitter expression and in the immune system without systemic exposure to exogenous chemicals.
- ***Our non-invasive therapy unlocks the long-held potential of VNS.*** VNS therapy can, for the first time, be delivered comfortably through the skin using gammaCore. This eliminates the need for costly, invasive surgery that has been reserved for the most refractory patients, requiring the implantation of a permanent medical device.
- ***Commercializing our therapy through traditional pharmaceutical channels.*** Our non-invasive delivery modality permits medical professionals to prescribe VNS through the same channel they would any other specialty medication. Refills delivered on a monthly basis enable us to seek widespread commercial payor coverage and reimbursement under a traditional pharmaceutical model. We have agreements in place with commercial payors that we believe, based on our estimates, will provide for reimbursement for gammaCore as a pharmacy benefit for approximately 17 million commercial lives with such number expected to increase to as many as 45 million lives under these agreements over the next several calendar quarters.
- ***Highly scalable and low investment manufacturing with digital refills.*** Our low manufacturing and assembly costs allow us to scale to meet demand with minimal additional investment. Refills through RFID or Bluetooth may offer attractive gross margins.
- ***Potential for rapid label expansion in headache and regulatory approval in additional indications.*** In April 2017, the FDA cleared gammaCore for commercial sale in the United States and established a new therapeutic category: external vagal nerve stimulator for the treatment of headache. Through an expedited pathway, gammaCore received clearance for the acute treatment of pain associated with migraine in January 2018. We believe a similar regulatory pathway may be available to us for additional indications in rheumatology.
- ***Broad intellectual property protection.*** Among our key issued patents, we have coverage on using our high-frequency burst signal for treating certain medical conditions until 2031, the low-pass filtering of that signal to ensure safe and comfortable transmission through the skin until 2031, the non-invasive treatment of headache conditions until 2029, and the remote network-enabled communication for the delivery of neuromodulation therapies for a broad range of medical conditions until 2033.
- ***Highly experienced management team.*** Our management team includes executives with significant experience in the pharmaceutical and medical device industries, including positions at Pfizer Inc, Merck & Co., Novartis International AG, Stryker Corporation and Zimmer Biomet. Members of our team have been involved in the launch and marketing of products including Motrin, Celebrex, and the migraine drugs Axert and Maxalt. Our team's

pharmaceutical experience in clinical development, sales, marketing and reimbursement, and its medical device experience in research, development and regulatory affairs, allow us to pursue our strategy and growth plans.

gammaCore Headache Pipeline

The following table summarizes our headache-related areas of focus for gammaCore:



1. The gammaCore product registry for the acute treatment of cluster headache constitutes our initial commercialization efforts for our product. The full product launch is expected in the third quarter of 2018.

Migraine

Migraine is a debilitating primary headache condition characterized by severe throbbing pain or a pulsing sensation, usually on one side of the head. Migraine affects approximately 12% of the adult population globally and disproportionately impacts women of childbearing years. In the United States, there are approximately 36 million migraine sufferers. Medications used to treat migraine include triptans, ergotamines, and anti-epileptic medications. Despite the fact that neurologists recognize the limited efficacy of, and the potential for abuse associated with, opioids, this class of medication continues to be prescribed for migraine at high rates, particularly in emergency departments. According to the U.S. Pharmacist, a leading pharmacy publication, upwards of 60% of the migraine patient population is dissatisfied with, or has contraindications to, the current standard of care migraine treatments. We estimate the addressable market for the acute treatment of migraine in the United States in 2018 will be approximately $3.8 billion. Five million migraine sufferers are treated annually by approximately 1,100 U.S. headache specialists, primarily neurologists.

Our FDA clearance for the acute treatment of migraine is principally supported by our pivotal trial, PRESTO. Statistical significance was achieved for complete pain relief at 30 minutes (gammaCore, 12.7%; sham, 4.2%; p=0.01), and maintained at 60 minutes (gammaCore, 21.0%; sham, 10.0%; p=0.02). The primary endpoint of PRESTO was pain-freedom at 120 minutes. While this trial did not reach statistical significance with respect to its primary endpoint, a repeated-measures test examined the inconsistency between the 120-minute finding and the 30- and 60-minute findings. This test demonstrated the statistical significance of gammaCore's superiority over sham for the pain-free outcome through 120 minutes (gammaCore, 30.4%; sham, 19.7%; p=0.01). No serious adverse events were

attributable to gammaCore in PRESTO, and the most commonly occurring adverse events were application site reactions, all of which were mild, transient, and tended to be self-limiting in nature. Based on these findings, the FDA cleared gammaCore for the acute treatment of migraine in adults.

Cluster Headache

Cluster headache is a series of relatively short but extremely painful headaches that has been described by patients and physicians as one of the most painful conditions in medicine. The suicide rate among these patients is 20 times the U.S. national average, leading to the condition being referred to as the "suicide headache." There are approximately 350,000 cluster headache sufferers in the United States, approximately 225,000 of whom seek treatment each year primarily from the same headache specialists who treat migraine, and we estimate the total annual addressable U.S. market for the acute treatment of these patients in 2018 will be approximately $400 million. Prior to gammaCore, there was only one FDA-approved, commercially available acute cluster headache treatment, injectable sumatriptan, and according to a 2016 market research survey, 87% of respondents reported dissatisfaction with the then-available treatment options for cluster headache.

Our FDA clearance for the acute treatment of episodic cluster headache is supported by two pivotal trials: ACT 1 and ACT 2. The primary endpoints of these trials were pain reduction and pain freedom within 15 minutes of the onset of the attack, respectively. While neither trial reached statistical significance with respect to its primary endpoint in the combined episodic and chronic cluster headache populations, both trials reached statistical significance ($p<0.01$ in each trial) on the primary endpoint in their predefined analysis of the episodic cluster headache subpopulation. To further define the benefit of gammaCore for the acute treatment of episodic cluster headache, the data from ACT 1 and ACT 2 were pooled to assess the overall response to each trial's primary endpoint. Results of this pooled analysis reached statistical significance for the proportion of patients achieving mild or pain-free status at 15 minutes for the first attack ($p<0.01$ for the pooled data) and for the proportion of all treated attacks reaching pain freedom at 15 minutes ($p<0.01$ for the pooled data). No serious adverse events were attributable to gammaCore in ACT 1 or ACT 2. The most commonly occurring adverse events were application site reactions, all of which were mild, transient, and tended to be self-limiting in nature. Based on these findings, the FDA cleared gammaCore for the acute treatment of episodic cluster headache in adults.

Important advantages of gammaCore over other acute treatments for migraine and episodic cluster headache include its ease of use and suitability to be applied for as many attacks as a patient experiences per day, without the frequency-of-use restrictions and contraindications associated with other treatments.

Our Strategy

Our goal is to be a leader in bioelectronic medicine by using our proprietary non-invasive VNS platform therapy to deliver better patient outcomes. The key elements of our strategy include:

- ***Drive acceptance of our gammaCore products as a leading headache therapy, introducing it in cluster headache and expanding into migraine.*** We plan to establish gammaCore as the first-line treatment for episodic cluster headache patients, who have few alternative treatment options available to them. We will then leverage this position to expand into the broader headache market for migraine in the third quarter of 2018.
- ***Drive reimbursement of our therapy.*** We are actively engaging with over 50 national and regional commercial insurance payors in the United States with the goal of securing reimbursement coverage as a pharmacy benefit. We have agreements with commercial payors in place that we believe, based on our estimates, will provide for reimbursement for gammaCore as a pharmacy benefit for approximately 17 million commercial lives, with such number expected to increase to as many as 45 million lives under these agreements over the next several calendar quarters.

- ***Build a leading commercial presence.*** We are establishing a robust commercial capacity, including a specialty distribution channel with a concierge service to quickly onboard patients and manage payor interactions, and a direct sales force to target high prescribing neurology specialists and headache centers.
- ***Rapidly advance our pipeline.*** In 2018, we expect to initiate pivotal trials to support potential label expansion in headache, including additional trials in migraine prevention and migraine in adolescents. In 2018, we also expect to initiate our first major trial in rheumatology, a pivotal trial in Sjôgren's syndrome. Over the next 24 months, we anticipate additional sponsored trials will be conducted in both neurology and rheumatology, including in rheumatoid arthritis.

Rheumatology Pipeline

Modulation of the peripheral immune system by VNS provides mechanistic support for the study of gammaCore in the treatment of inflammatory disorders. The systemic anti-inflammatory effects of VNS are believed to result from the activation of nerve fibers that release norepinephrine, causing specialized immune cells to release acetylcholine. This acetylcholine release activates a receptor on other immune cells, which blocks the pathways that promote inflammation. Based on initial positive results from our pilot trials, in 2018 we expect to initiate a pivotal trial designed to support regulatory approvals in our first rheumatologic condition, Sjôgren's syndrome, and over the next 24 months, a pivotal trial in rheumatoid arthritis.

Manufacturing

We are the FDA-registered manufacturer of our gammaCore products, and we currently have sufficient capacity to meet anticipated demand for our therapy for the foreseeable future. We rely upon third-party suppliers, located both within and outside the United States, for substantially all of the component parts of gammaCore, including injection molded housings, printed circuit board assemblies, batteries, electrodes and conductive gel. We assemble, program and package our gammaCore products at our Basking Ridge, NJ facility and ship them into our distribution network.

The generation of our proprietary signal does not require custom electronic components. Therefore, we believe long-term supply agreements with our suppliers are not necessary as all the components used in our products are either high-volume, non-custom commodity components, or are readily available from multiple vendors. In cases where single sources exist, we have purchased such components with sufficient reserves to permit continued production of our product should simple design modifications be required.

Commercialization

We believe the significant unmet need and highly-targeted market of episodic cluster headache represents an ideal entry point for our therapy into the headache market, providing an opportunity to gain relevance with treating clinicians in order to support an expansion into migraine. Our commercial strategy will initially focus on the following priorities:

- ***Drive advocacy of gammaCore as a leading headache therapy.*** Our strategy is to establish gammaCore as a preferred treatment option, initially in episodic cluster headache and expanding into migraine. We are developing advocacy for gammaCore among key opinion leaders through our clinical program and initial product registry. We currently have in excess of 300 clinicians trained on gammaCore use and over 600 unique prescribers. Of these, 50 are key opinion leaders who will lead a series of programs to educate their colleagues on our clinical data and our specialty pharmacy distributor and its national network of specialty pharmacies.

- ***Drive reimbursement of our therapy.*** Through our product registry and initial commercialization efforts we are generating prescriptions and patient claims to prompt commercial payors to initiate reimbursement policies for gammaCore. We have engaged over 50 national and regional commercial insurance payors in the United States with the goal of obtaining reimbursement coverage as a pharmacy benefit. gammaCore is currently the subject of agreements with commercial payors that we believe, based on our estimates, will provide for reimbursement for gammaCore as a pharmacy benefit for approximately 17 million commercial lives, with such number expected to increase to as many as 45 million lives under those agreements over the next several calendar quarters. In addition, our access negotiations have entered the active clinical review stage with more than a dozen additional insurance plans covering approximately 120 million additional commercial lives.
- ***Build a leading commercial presence.*** We have partnered with an established specialty pharmacy distributor to provide physician and patient support to quickly onboard patients and manage payor interactions. This support includes adjudication of all gammaCore prescriptions, payor claims for reimbursement, and patient support and training. Our sales force targets high-prescribing U.S. neurology practices and headache centers. We currently have a sales force of 18, with three medical science liaisons. We plan to hire an additional 14 territory business managers, who will ultimately cover 6,400 high-prescribers of headache medications.

Risks Associated with our Business

Our business is subject to a number of risks and uncertainties you should be aware of before making an investment decision. These risks are discussed more fully in the "Risk Factors" section immediately following this prospectus summary. These risks include the following:

- We have a history of significant losses. If we do not achieve and sustain profitability, our financial condition could suffer.
- We will be required to obtain additional funds in the future, and these funds may not be available on acceptable terms or at all.
- If third-party payors do not provide adequate coverage and reimbursement for gammaCore, our business will be negatively impacted.
- Third-party payors may not agree to cover gammaCore through pharmacy benefit plans, which will hinder our commercialization strategy and require changes to our existing business that could delay and negatively impact our ability to generate net sales.
- We must demonstrate to physicians the merits of our gammaCore therapy compared to those of our competitors.
- We only recently began commercializing gammaCore in the United States and we may never achieve market acceptance.
- Our business is subject to extensive governmental regulation that makes it expensive and time consuming for us to bring our gammaCore therapy to market in the United States and to expand the use of our gammaCore therapy to additional therapeutic indications.
- Clinical trials are very expensive, time-consuming and difficult to design and implement and involve uncertain outcomes. Furthermore, results of earlier preclinical studies and clinical trials may not be predictive of results of future preclinical studies or clinical trials.

- If our competitors are better able to develop and market treatments that are safer, more effective, less costly, easier to use or otherwise more attractive than gammaCore, our business will be adversely impacted.
- We rely upon third-party, and in certain cases single-source suppliers for many of the components and materials used in manufacturing gammaCore, and for critical manufacturing and packaging services, making us vulnerable to supply shortages and problems and price fluctuations, which could harm our business.
- We rely on a variety of intellectual property rights, and if we are unable to maintain or protect our intellectual property, our business and results of operations will be harmed.
- Our principal stockholders and management own a significant percentage of our stock and will be able to exert significant control over matters subject to stockholder approval.
- We have identified a material weakness in our internal control over financial reporting. If we are unable to remediate this material weakness, or if we experience additional material weaknesses in the future, we may not be able to accurately or timely report our financial condition or results of operations and investors may lose confidence in our financial reports and the market price of our common stock could be adversely affected.

Corporate Conversion

We currently operate as a Delaware limited liability company under the name Electrocore, LLC. Prior to the closing of this offering, Electrocore, LLC will convert into a Delaware corporation pursuant to a statutory conversion and change its name to electroCore, Inc. As a result of the corporate conversion, the holders of the different classes and series of units of Electrocore, LLC, or Units, and warrants to purchase Units, will become holders of common stock of electroCore, Inc. and warrants to purchase common stock of electroCore, Inc., and, for certain holders, options to purchase our common stock. The number of shares of our common stock, options to purchase our common stock, and warrants to purchase our common stock that holders of Units and warrants to purchase Units will be entitled to receive in the corporate conversion will be determined in accordance with the plan of conversion and our Third Amended and Restated Limited Liability Company Agreement, dated November 21, 2017, or the Operating Agreement, and varies depending on which class and series of Units a holder owns, and the terms of the applicable warrants. The number of shares of common stock certain holders of our Units will receive in connection with the corporate conversion will also vary depending on the initial public offering price set forth on the cover page of this prospectus. See "Corporate Conversion."

The information in this prospectus is based on our estimate that, in the corporate conversion, shares of our common stock will be issued to holders of Units, warrants to purchase shares of common stock will be issued to holders of warrants to purchase Units, and options to purchase shares of our common stock will be issued to certain holders of Units that were originally issued as profits interests, in each case, based on an initial public offering price per share of common stock of $, which is the midpoint of the price range set forth on the cover page of this prospectus. To the extent that the actual initial public offering price per share for this offering is greater or less than $, the actual number of shares of common stock, options and warrants to be issued in connection with the conversion will be adjusted accordingly. See "Pricing Sensitivity Analysis" for how the number of shares to be issued in the corporate conversion or issuable thereafter upon exercise of options and warrants would be affected by an initial public offering price per share of common stock at the low-, mid- and high-points of the estimated price range set forth on the cover of this prospectus or if the underwriters' option to purchase additional shares of common stock is exercised in full. Unless the context otherwise requires, and as further described below in "Corporate Conversion," references to Units exclude Units originally issued as profits interests.

The purpose of the corporate conversion is to reorganize our corporate structure so that the entity that is offering our common stock to the public in this offering is a corporation rather than a limited liability company and so that our existing investors will own our common stock rather than equity interests in a limited liability company. For further information regarding the corporate conversion, see "Corporate Conversion." References in this prospectus to our capitalization and other matters pertaining to our equity and shares prior to the corporate conversion relate to the capitalization and equity and shares of Electrocore, LLC, and after the corporate conversion, to electroCore, Inc.

Implications of Being an Emerging Growth Company

We are an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, which permits us to elect not to be subject to certain disclosure and other requirements that otherwise would have been applicable to us had we not been an "emerging growth company." These provisions include:

- only two years of audited financial statements, in addition to any required unaudited interim financial statements, with correspondingly reduced "Management's Discussion and Analysis of Financial Condition and Results of Operations" disclosure in this prospectus; and
- reduced disclosure about our executive compensation arrangements;
- no non-binding advisory votes on executive compensation or golden parachute arrangements; and
- exemption from the auditor attestation requirement in the assessment of our internal control over financial reporting.

We may take advantage of these exemptions for up to five years or such earlier time as we are no longer an "emerging growth company." We will qualify as an "emerging growth company" until the earliest of (1) the last day of our fiscal year following the fifth anniversary of the date of completion of this offering, (2) the last day of our fiscal year in which we have annual gross revenue of $1.07 billion or more, (3) the date on which we have, during the previous three-year period, issued more than $1.0 billion in non-convertible debt and (4) the last day of the fiscal year in which we become a "large accelerated filer" as defined in Rule 12b-2 under the Securities Exchange Act of 1934, as amended, or the Exchange Act. Under this definition, we will be an "emerging growth company" upon completion of this offering and could remain an "emerging growth company" until as late as December 31, 2023.

In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. This allows an emerging growth company to delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of this exemption from new or revised accounting standards and, therefore, we will comply with new or revised accounting standards when they are required to be adopted by other public companies that are not emerging growth companies.

Corporate Information

Electrocore, LLC was established in Delaware in September 2005. Prior to the closing of this offering, we will complete a corporate conversion pursuant to which electroCore, Inc. will succeed to the business of Electrocore, LLC and its consolidated subsidiaries and affiliate, and the equity holders of Electrocore, LLC will become stockholders, option holders and warrant holders of electroCore, Inc. See "Corporate Conversion." Our principal executive offices are located at 150 Allen Rd., Suite 201, Basking Ridge, New Jersey 07920, and our telephone number at that address is (973) 290-0097. Our website is located at *www.electrocore.com*. Our website, and the information on our website, is neither part of this prospectus nor incorporated by reference herein.

THE OFFERING

Common stock offered by us	shares.
Common stock to be outstanding after this offering	shares (or shares if the underwriters' option to purchase additional shares is exercised in full).
Underwriters' option to purchase additional shares of common stock from us	We have granted the underwriters a 30-day option to purchase an additional shares.
Use of proceeds	We estimate, based upon an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, we will receive proceeds from the offering of approximately $ million (or $ million if the underwriters' option to purchase additional shares is exercised in full), after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. We intend to use the proceeds from this offering as follows: (i) to hire additional territory business managers and expand marketing programs to prepare for the full commercial launch of our gammaCore products; (ii) to fund the research and development of our gammaCore products for other indications in headache and rheumatology; (iii) to fund the build out of a specialty distribution channel for the anticipated launch of gammaCore Sapphire in the third quarter of 2018; and (iv) the remainder to fund working capital and general corporate purposes. See "Use of Proceeds."
Risk factors	You should carefully read and consider the information set forth under the heading "Risk Factors" beginning on page 13 of this prospectus and all other information set forth in this prospectus before investing in our common stock.
Proposed Nasdaq Global Select Market symbol	"ECOR"

The common stock to be outstanding after this offering is based on shares outstanding as if the corporate conversion had been effected as of , 2018, and excludes the following:

- shares issuable upon the exercise of options outstanding as of , 2018 at an exercise price equal to the initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, following the corporate conversion;
- shares issuable upon the exercise of warrants outstanding as of , 2018 at a weighted-average exercise price of $ per share following the corporate conversion;
- shares of common stock reserved for issuance pursuant to future awards under our 2018 Omnibus Equity Incentive Plan, or the 2018 Plan, which will become effective immediately prior to the consummation of this offering; and

- the issuance of shares of common stock in satisfaction of $3,629,092 in respect of an accrued but unpaid preferred return to holders of our Series A Preferred Units (which we expect to pay in shares of common stock valued at the offering price).

Unless otherwise indicated, this prospectus assumes:

- the completion of our corporate conversion, as a result of which Units will be converted into shares of common stock of electroCore, Inc., warrants to purchase Units will be converted into the right to purchase shares of common stock of electroCore, Inc., and Units that were originally issued as profits interests will be converted into shares of our common stock and, with respect to such Units held by persons who are our employees and consultants at the time of the conversion, options to purchase shares of common stock of electroCore, Inc., in each case, based on the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus;
- an initial public offering price of $ per share, which is the midpoint of the estimated initial public offering price range set forth on the cover page of this prospectus;
- no exercise of the outstanding options and warrants described above; and
- no exercise of the underwriters' option to purchase up to an additional shares of our common stock.

The number of shares of common stock of electroCore, Inc. that holders of Units will receive in the corporate conversion and the number of shares of common stock that options and warrants will be exercisable for following the corporate conversion will vary depending on the initial public offering price. See "Pricing Sensitivity Analysis" for additional information.

SUMMARY CONSOLIDATED FINANCIAL DATA

The following tables present summary consolidated financial data for our business. You should read this data together with our audited and unaudited consolidated financial statements and related notes appearing elsewhere in this prospectus and the information under the captions "Selected Consolidated Financial Data," "Capitalization" and "Management's Discussion and Analysis of Financial Condition and Results of Operations."

We derived the following consolidated statements of operations data for the three months ended March 31, 2018 and 2017 and the following balance sheet data as of March 31, 2018 from our unaudited consolidated financial statements appearing elsewhere in this prospectus. The unaudited consolidated financial statements include, in the opinion of management, all adjustments that management considers necessary for the fair presentation of the consolidated financial information set forth in those statements. We derived the following consolidated statements of operations data for the years ended December 31, 2017 and 2016 from our audited consolidated financial statements appearing elsewhere in this prospectus. We have prepared the unaudited consolidated financial information set forth below on the same basis as our audited consolidated financial statements and have included all adjustments, consisting of only normal recurring adjustments, that we consider necessary for a fair presentation of our financial position and operating results for such periods. Our historical results are not necessarily indicative of our future results. The results for any interim period are not necessarily indicative of the results that may be expected for a full year.

	Three months ended March 31,		Years ended December 31,	
	2018	2017	2017	2016
	(unaudited) (in thousands, except unit and per unit amounts)			
Consolidated statements of operations:				
Net sales	$ 81.2	$ 116.9	$ 811.5	$ 254.1
Cost of goods sold	48.9	72.7	518.6	123.7
Gross profit	32.2	44.2	292.9	130.4
Operating expenses				
Research and development	2,306.3	1,726.6	7,830.9	7,971.3
Selling, general and administrative	6,824.8	3,059.3	18,106.6	7,169.3
Total operating expenses	9,131.1	4,785.8	25,937.5	15,140.6
Loss from operations	(9,098.9)	(4,741.6)	(25,644.6)	(15,010.2)
Other expense (income)				
Interest expense	—	1,040.1	6,295.9	234.4
Net loss on settlement of convertible bridge notes	—	—	3,868.8	—
Amortization of debt issuance costs	—	269.2	827.3	536.9
Change in fair value of warrant liability	245.9	178.0	(861.8)	—
Change in fair value of derivative instrument related to convertible bridge notes	—	128.1	348.2	—
Interest and other income, net	(109.3)	—	(99.0)	—
Other	208.1	—	4.9	—
Net loss	(9,443.5)	(6,356.9)	(36,028.9)	(15,781.5)
Less: Net income (loss) attributable to noncontrolling interest	55.0	—	(236.4)	(44.1)
Net loss attributable to Electrocore, LLC, subsidiaries and affiliate	$ (9,498.5)	$ (6,356.9)	$ (35,792.5)	$ (15,737.4)
Pro forma net loss per share data[1]:				
Pro forma net loss per share—basic and diluted (unaudited)				
Pro forma weighted average number of common shares used to calculate loss per share—basic and diluted (unaudited)				

(1) We have presented pro forma basic and diluted net loss per share for the three months ended March 31, 2018 and 2017 and the years ended December 31, 2017 and 2016, which consists of our historical net loss attributable to Electrocore LLC, subsidiaries and affiliate, divided by the pro forma basic and diluted weighted average number of shares of common stock outstanding after giving effect to the conversion of all of our outstanding Common Units, Series A Preferred Units and Series B Preferred Units into shares of our common stock prior to the closing of this offering. Net loss used in calculating net loss per share does not reflect (i) the estimated expenses of this offering or (ii) compensation and expenses for our board of directors and other costs related to operating as a public company. For more information on how we calculate basic and diluted pro forma weighted average number of shares outstanding, see Note 9 to our audited consolidated financial statements and Note 11 to our unaudited consolidated financial statements included elsewhere in this prospectus.

	As of March 31, 2018		
	Actual	Pro forma[1]	Pro forma as adjusted[2]
	(unaudited; in thousands)		
Consolidated balance sheet data:			
Cash and cash equivalents	$ 1,520.5	$	$
Debt securities and other investments available for sale	25,186.0		
Working capital[3]	23,397.0		
Total assets	31,274.7		
Series A Preferred Units	53,518.5	—	—
Series B Preferred Units	68,755.5	—	—
Common Units	40,180.6	—	—
Common Stock	—		
Total members'/stockholders' equity (deficit)	(98,833.1)		

(1) Pro forma to reflect our conversion from a Delaware limited liability company to a Delaware corporation prior to the closing of this offering, in which all outstanding Units of Electrocore, LLC will be converted into shares of common stock of electroCore, Inc. at an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus. The number of shares of common stock of electroCore, Inc. that holders of Units will receive in the corporate conversion and the number of shares of common stock that options and warrants will be exercisable for following the corporate conversion will vary depending on the initial public offering price. See "Pricing Sensitivity Analysis" for more information.

(2) Pro forma as adjusted gives further effect to the sale of shares of our common stock in this offering at an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us and the application of the proceeds therefrom. See "Pricing Sensitivity Analysis" for how some of the information provided above would be affected by the initial public offering price per share of common stock at the low-, mid- and high-points of the estimated price range indicated on the cover of this prospectus or if the underwriters' option to purchase additional shares of common stock is exercised in full.

(3) We define working capital as current assets less current liabilities.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below, together with all of the other information in this prospectus, including our consolidated financial statements and related notes, before investing in our common stock. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties that we are unaware of, or that we currently believe are not material, may also become important factors that affect us. If any of the following risks occur, our business, operating results and prospects could be materially harmed. In that event, the price of our common stock could decline, and you could lose part or all of your investment.

Risks Related to our Financial Position, Operating Results and Need for Additional Capital

We have a history of significant losses. If we do not achieve and sustain profitability, our financial condition could suffer.

We have experienced significant net losses, and we expect to continue to incur losses for the foreseeable future as we seek to grow our sales and marketing infrastructure, to increase market acceptance of our gammaCore therapy for the acute treatment of episodic cluster headache, or eCH, and the acute treatment of migraine, fund our research and development activities, to expand our manufacturing capabilities, and to obtain regulatory clearance or approval for other products or indications in the United States and internationally. We incurred net losses of $35.8 million and $9.5 million for the year ended December 31, 2017 and the three months ended March 31, 2018, respectively. As of December 31, 2017 and March 31, 2018, our accumulated deficit was $152.9 million and $162.4 million, respectively. Our prior losses, combined with expected future losses, have had and will continue to have, for the foreseeable future, an adverse effect on our stockholders' deficit and working capital.

To become and remain profitable, we must successfully commercialize our gammaCore therapy and continue to identify promising new areas of treatment with significant market potential. This will require us to be successful in a range of challenging activities, including completing clinical trials of gammaCore for additional therapeutic indications, developing commercial scale manufacturing processes, obtaining additional marketing clearance or approval from regulatory authorities, obtaining adequate coverage and reimbursement from payors, manufacturing, marketing and selling any current and future product candidates for which we may obtain marketing clearance or approval, and satisfying any post-marketing requirements. We may never succeed in any or all of these activities and, even if we do, we may never generate sufficient revenue to achieve profitability.

Even if we do achieve profitability, we may not be able to sustain or increase profitability in subsequent periods. Our failure to become and remain profitable would decrease the value of our company and could impair our ability to raise capital, maintain our research and development efforts, expand our business or continue our operations. A decline in the value of our company also could cause you to lose all or part of your investment.

We will be required to obtain additional funds in the future, and these funds may not be available on acceptable terms or at all.

Our operations have consumed substantial amounts of cash since inception, and we anticipate our expenses will increase as we expand our commercial sales force in the United States, investigate the use of our gammaCore therapy for the treatment of additional new indications, including Sjôgren's syndrome and rheumatoid arthritis, and continue to grow our business and transition to operating as a public company. We believe that our growth will depend, in part, on our ability to fund our efforts to commercialize our gammaCore therapy for the acute treatment of eCH and the acute treatment of migraine, and to pursue research and development activities for additional indications for our gammaCore therapy. Our existing resources may not allow us to conduct all of the activities that we believe would be beneficial for our future growth. As a result, we may need to seek additional funds in

the future. If we are unable to raise funds on favorable terms, or at all, we may not be able to support our commercialization efforts or increase our research and development activities and the growth of our business may be negatively impacted. As a result, we may be unable to compete effectively. For the year ended December 31, 2017 and the three months ended March 31, 2018, our net cash used in operating activities was $25.3 million and $9.7 million, respectively, and as of December 31, 2017 and March 31, 2018 we had $13.2 million and $1.5 million in cash and cash equivalents, as well as $24.0 million in marketable securities and $25.2 million in debt securities and other investments available for sale, respectively. We expect that our existing capital resources, together with the net proceeds from this offering, will enable us to fund our operating expenses and capital expenditure requirements through at least the next 12 months. This estimate is based on assumptions that may prove to be wrong, and we could exhaust our available capital resources sooner than we expect. Changes, including those relating to our development activities and regulatory matters, may occur beyond our control that would cause us to consume our available capital more quickly. Our future capital requirements will depend on many factors, including:

- the outcome, timing of, and costs involved in, seeking and obtaining clearances or approvals from the FDA and other regulatory authorities, including the potential for the FDA and other regulatory authorities to require that we perform more studies, clinical trials or tests on our gammaCore therapy than we currently expect;
- the scope and timing of our investment in our U.S. commercial infrastructure and sales force;
- the research and development activities we intend to undertake in order to expand our headache indications and enhancements to our gammaCore therapy that we intend to pursue;
- the costs of commercialization activities including sales, marketing, manufacturing and distribution;
- the degree and rate of market acceptance of our gammaCore therapy;
- the costs of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights;
- our need to implement additional infrastructure and internal systems;
- our ability to hire additional personnel to support our operations as a public company; and
- the emergence of competing therapies or other adverse market developments.

To finance these activities, we may seek funds through borrowings or through additional rounds of financing, including private or public equity or debt offerings and collaborative arrangements with corporate partners. We may be unable to raise funds on favorable terms, if at all.

The sale of additional equity or convertible debt securities could result in additional dilution to our stockholders. If we borrow additional funds or issue debt securities, lenders or security holders could have rights superior to holders of our common stock and such indebtedness could contain covenants that will restrict our operations. We might have to obtain funds through arrangements with collaborative partners or others that may require us to relinquish rights to our technologies, therapeutic candidates, or products that we otherwise would not relinquish. If we do not obtain additional resources, our ability to capitalize on business opportunities will be limited, we may be unable to compete effectively and the growth of our business will be harmed.

If third-party payors do not provide adequate coverage and reimbursement for the use of gammaCore, we will be unable to generate significant revenues.

Our success in marketing and commercializing gammaCore depends and will depend in large part on whether U.S. and international government health administrative authorities, private health insurers and other payor organizations provide adequate coverage and reimbursement for the cost of our products.

Many third-party payors do not currently cover VNS for any indications other than epilepsy because they have determined all other VNS modalities to be investigational or experimental. If physicians or insurers do not find our clinical data compelling or wish to wait for additional studies, they may choose not to use or provide coverage and reimbursement for gammaCore. We cannot provide assurance that data we or others may generate in the future will be consistent with that observed in our existing clinical studies, or that our current or future published clinical evidence will be sufficient to obtain adequate coverage and reimbursement for our products.

In the United States, we expect to derive nearly all of our sales from prescriptions of gammaCore from neurologists and primary care physicians. Access to adequate coverage and reimbursement by third-party payors for treatment of cluster and migraine headaches using our gammaCore therapy is essential to the acceptance of our products by customers and patients, because without such coverage and reimbursement, customers and patients will have to be willing to bear the entire cost of our therapy.

Third-party payors, whether foreign or domestic, or governmental or commercial, are developing increasingly sophisticated methods of controlling healthcare costs. In addition, in the United States, no uniform policy of coverage and reimbursement for our gammaCore therapy exists among third-party payors. Therefore, coverage and reimbursement for our gammaCore therapy can differ significantly from payor to payor. In addition, payors continually review new technologies for possible coverage and can, without notice, deny coverage for these new products and procedures. As a result, the coverage determination process is often a time-consuming and costly process that will require us to provide scientific and clinical support for the use of our gammaCore therapy to each payor separately, with no assurance that coverage and adequate reimbursement will be obtained, or maintained if obtained.

Reimbursement systems in international markets vary significantly by country and by region within some countries, and reimbursement approvals must be obtained on a country-by-country basis. In many international markets, a product must be approved for reimbursement before it can be approved for sale in that country. Further, many international markets have government-managed healthcare systems that control reimbursement for new devices and procedures. In most markets, there are private insurance systems as well as government-managed systems. If sufficient and timely coverage and reimbursement is not available for our current or future products, in either the United States or internationally, the demand for our products and our revenues will be adversely affected.

Third-party payors may not agree to cover gammaCore through pharmacy benefit plans, which will hinder our commercialization strategy and require changes to our existing business that could delay and negatively impact our ability to generate revenue.

Our commercialization strategy in the United States advocates for coverage and reimbursement for gammaCore under payors' pharmacy benefit. This pathway may allow patients to obtain our therapy through payment of a co-payment rather than being personally responsible for the costs of our product until meeting an annual deductible. While some commercial payors may provide coverage under their pharmacy benefit plans, other third-party payors, including government health programs and private insurers, may not be willing or able to cover gammaCore under pharmacy benefit plans, which are often limited to coverage of prescription drug products. For example, Medicare's voluntary pharmacy benefit, Medicare Part D, limits coverage under this benefit to prescription drugs, biologicals, and supplies used in the delivery of insulin, but does not cover medical devices like gammaCore or its supplies.

To obtain coverage and reimbursement from Medicare and any other third-party payor that will not cover gammaCore under a pharmacy benefit, we may be required to seek coverage and reimbursement as a medical device or item of durable medical equipment. If needed to obtain third-party payor coverage and reimbursement under an alternative benefit, these potential changes may entail numerous risks, including increased operating expenses, requirements to comply with healthcare regulatory laws, the loss

of or delay in obtaining revenue, and uncertainty in our ability to successfully implement the modifications. The failure to obtain recognition by third-party payors under the pharmacy benefit model could require us to modify our commercialization strategy, our distribution model, our pricing, and our operations, any of which could have a material adverse effect on the sales of gammaCore and the results of our operations.

We must demonstrate to physicians the merits of our gammaCore therapy compared to those of our competitors.

Physicians play a significant role in determining the course of a patient's treatment and, as a result, the type of product that will be used to treat a patient. As a result, our success depends, in large part, on effectively marketing our gammaCore therapy to physicians. In order for our gammaCore therapy to gain widespread adoption, we must successfully demonstrate to physicians the merits of our gammaCore therapy for the acute treatment of eCH and the acute treatment of migraine, compared to our competitors' products, including products recently approved or being developed in Phase 3 by Allergan plc, Amgen Inc. (with a co-marketing arrangement with Novartis International AG), Biohaven Pharmaceuticals, Inc., Eli Lilly and Company, Alder Biopharmaceuticals, Inc. and Teva Pharmaceutical Industries Ltd., for use in treating patients with cluster and migraine headaches, particularly because noninvasive VNS, or nVNS, is relatively new as compared to existing traditional treatments for cluster and migraine headaches. Acceptance of our gammaCore therapy depends on educating physicians as to the distinctive characteristics, perceived benefits, safety, ease of use and cost-effectiveness of our gammaCore therapy as compared to our competitors' products, and communicating to physicians the proper use of our gammaCore therapy. If we are not successful in convincing physicians of the merits of our gammaCore therapy or educating them on the benefits of our gammaCore therapy, they may not prescribe our gammaCore therapy and we may be unable to increase our sales, sustain our growth or achieve profitability. In addition, we believe support of our products by physicians is essential for market acceptance and adoption. If we do not receive support from physicians or long-term data does not show the benefits of using our gammaCore therapy, physicians may not use it. In such circumstances, our results of operations would be materially adversely affected.

Our operating results may vary significantly from quarter to quarter because of seasonality or otherwise.

Our quarterly revenue and results of operations may fluctuate from quarter to quarter due to, among others, the following reasons:

- physician and payor acceptance of our gammaCore therapy;
- the timing, expense and results of research and development activities, clinical trials and regulatory clearance or approvals;
- fluctuations in our expenses associated with expanding our commercial operations and operating as a public company;
- the introduction of new products, therapies and technologies by competitors;
- the productivity of our sales representatives;
- supplier, manufacturing or quality problems with our products;
- the timing of stocking orders from our distributors;
- changes in our pricing policies or in the pricing policies of our competitors or suppliers; and
- adverse developments in coverage amounts or government and third-party payors' reimbursement policies.

Our results may also fluctuate on a seasonal basis due to the seasonality of cluster and migraine headache attacks, which could affect the comparability of our results between periods. These seasonal

variations are difficult to predict accurately, may vary across different markets, and at times may be entirely unpredictable, which introduces additional risk into our business as we may rely upon forecasts of customer demand to build inventory in advance of anticipated sales. In addition, we believe our limited history commercializing our gammaCore therapy has, in part, made our seasonal patterns more difficult to discern, making it more difficult to predict future seasonal patterns.

Because of these and other factors, it is likely that in some future period our operating results will not meet investor expectations or those of public market analysts.

Any unanticipated change in revenues or operating results is likely to cause our stock price to fluctuate. New information may cause investors and analysts to revalue our business, which could cause a decline in our stock price.

Failure to protect our information technology infrastructure against cyber-based attacks, network security breaches, service interruptions, or data corruption could significantly disrupt our operations and adversely affect our business and operating results.

We rely on information technology and telephone networks and systems, including the internet, to process and transmit sensitive electronic information and to manage or support a variety of business processes and activities, including sales, billing, marketing, procurement and supply chain, manufacturing, and distribution. We also rely on information technology systems to support our proprietary data warehouse, which, among other things, maintains patient product serial numbers and allows for prescription refills at specialty pharmacies through RFID cards. In addition, we use enterprise information technology systems to record, process, and summarize financial information and results of operations for internal reporting purposes and to comply with regulatory, financial reporting, legal, and tax requirements. Our information technology systems, some of which are managed by third-parties, and the information technology systems of third parties may be susceptible to damage, disruptions, or shutdowns due to computer viruses, attacks by computer hackers, failures during the process of upgrading or replacing software, databases or components thereof, power outages, hardware failures, telecommunication failures, user errors, or catastrophic events. Despite the precautionary measures we and third parties have taken to prevent breakdowns in information technology and telephone systems, if these systems are breached or suffer severe damage, disruption, or shutdown and we are unable to effectively resolve the issues in a timely manner, our business and operating results may suffer and we may be subject to related lawsuits.

We may engage in future acquisitions that increase our capital requirements, dilute our stockholders, cause us to incur debt or assume contingent liabilities and subject us to other risks.

We may evaluate various strategic transactions, including licensing or acquiring complementary therapies, products, technologies or businesses. Any potential acquisitions may entail numerous risks, including increased operating expenses and cash requirements, assimilation of operations and products, retention of key employees, diversion of our management’s attention and uncertainties in our ability to maintain key business relationships of the acquired entities. In addition, if we undertake acquisitions, we may issue dilutive securities, assume or incur debt obligations, incur large one-time expenses and acquire intangible assets that could result in significant future amortization expense. Moreover, we may not be able to locate suitable acquisition opportunities and this inability could impair our ability to grow or obtain access to technology or products that may be important to the development of our business.

Our reported financial results may be adversely affected by new accounting pronouncements or changes in existing accounting standards and practices.

Generally accepted accounting principles in the United States, or GAAP, are subject to interpretation by the Financial Accounting Standards Board, or FASB, the American Institute of Certified Public Accountants, or the AICPA, the SEC and various bodies formed to promulgate and interpret appropriate accounting principles. For example, in May 2014, the FASB issued ASU 2014-09 Revenue from

Contracts with Customers (Topic 606), which outlines a comprehensive revenue recognition model and supersedes most current revenue recognition guidance. We were required to implement this guidance in 2018. The new standard defines a five-step approach for recognizing revenue, which may require a company to use more judgment and make more estimates than under the previous guidance. Amongst the elements in the new standard are requirements for an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers and make expanded disclosures.

The new standard requires us to make a variety of estimates and judgments that are subject to risks and complexities, including identifying performance obligations in the contract, estimating the amount of variable consideration to include in the transaction price, and allocating the transaction price to each separate performance obligation. The new standard may also impact the realization of revenue from units of gammaCore provided in connection with our patient assistance programs (such as our voucher and co-payment assistance programs) and our rebate arrangements.

Such changes to our revenue recognition accounting may significantly affect our results of operations to the extent that actual revenues differ significantly from estimated and previous quarter revenues, or that we are required to accelerate or defer recognition of revenue under certain arrangements, which have caused and may potentially continue to cause the amount of revenue we recognize to vary materially from quarter to quarter. While the adoption of the new standard will not change the cash flows we receive from our contracts with customers, the changes to our reporting practices and the potential fluctuations in our reported revenue could cause a decline and/or fluctuations in the price of our common stock.

Risks Related to Our Business and the Development of Our gammaCore Therapy

Our business is subject to extensive governmental regulation that makes it expensive and time consuming for us to bring our gammaCore therapy to market in the United States and to expand the use of our gammaCore therapy to additional therapeutic indications.

Our gammaCore therapy must comply with regulatory requirements imposed by the FDA in the United States and similar agencies in foreign jurisdictions. These requirements involve lengthy and detailed laboratory and clinical testing procedures, sampling activities, extensive agency review processes, and other costly and time-consuming procedures. It often takes several years to satisfy these requirements, depending on the complexity and novelty of the product. We also are subject to numerous additional licensing and regulatory requirements relating to safe working conditions, manufacturing practices, environmental protection, fire hazard control, and disposal of hazardous or potentially hazardous substances. Some of the most important requirements we must comply with include:

- the Federal Food, Drug, and Cosmetic Act and the FDA's implementing regulations (Title 21 CFR);
- CE mark requirements of the European Union, or EU;
- Medical Device Quality Management System Requirements (ISO 13485:2003);
- Occupational Safety and Health Administration requirements; and
- New Jersey Department of Health Services requirements.

Government regulation may impede our ability to conduct clinical trials and to manufacture and sell our existing therapy and any future products. Government regulation also could delay our marketing of new products for a considerable period of time and impose costly procedures on our activities. The FDA and other regulatory agencies may not clear or approve our gammaCore therapy in additional therapeutic areas that we may pursue, including Sjôgren's syndrome and rheumatoid arthritis, on a timely basis, if at all. Any delay in obtaining, or failure to obtain, such clearances or approvals could negatively impact our marketing of our gammaCore therapy and impede our ability to bring future products to market.

Our gammaCore therapy will remain subject to strict regulatory controls on manufacturing, marketing and use. We may be forced to modify or recall a product after release in response to regulatory action or unanticipated difficulties encountered in general use. Any such action could have a material effect on the reputation of our gammaCore therapy and on our business and financial position.

Further, regulations may change, and any additional regulation could limit or restrict our ability to use any of our technologies, which could harm our business. We could also be subject to new international, federal, state or local regulations that could affect our research and development programs and harm our business in unforeseen ways. If this happens, we may have to incur significant costs to comply with such laws and regulations, which will harm our results of operations.

We may in the future become involved in lawsuits to protect or enforce our intellectual property, which could be expensive and time consuming, and ultimately unsuccessful, and could result in the diversion of significant resources, thereby hindering our ability to effectively commercialize our existing or future products. If we are unable to obtain, maintain, protect, and enforce our intellectual property, our business will be negatively affected.

The markets in which we compete and expect to compete are subject to rapid technological change and frequent litigation regarding patent and other intellectual property rights. It is possible that our patents or licenses may not withstand challenges made by others or protect our rights adequately.

Our success depends in large part on our ability to secure effective patent protection for our products and processes in the United States and internationally. We have filed and intend to continue to file patent applications for various aspects of our technology and trademark applications to protect our brand and business, and copyright applications to protect our software. We seek to obtain and maintain patents and other intellectual property rights to restrict the ability of others to market products or services that misappropriate our technology and work product and/or infringe our intellectual property to compete with our products and services.

However, we face the risks that:

- We may fail to secure necessary patents, potentially permitting competitors to market competing products and services and make, use or sell products or offer services that are substantially the same as ours without incurring the sizeable development costs that we have incurred, which would adversely affect our ability to compete.
- Patents may not issue from any of our currently pending or future patent applications.
- Our already-granted patents and any future patents may not survive legal challenges to their scope, validity or enforceability, or provide significant protection for us, and they may be challenged in a post grant review or inter partes review proceeding, re-examined or invalidated, and/or may be found to be unenforceable or not cover competing processes, products or services.
- Even if our patents are determined by the U.S. Patent and Trademark Office, or USPTO, foreign patent office, or a court to be valid and enforceable, they may not be drafted or interpreted sufficiently broadly to prevent others from marketing products and services similar to ours or designing around our patents. For example, third parties may be able to develop therapies, or make systems or devices, that are similar to ours but that are not covered by the claims of our patents. Third parties may assert that we or our licensors were not the first to make the inventions covered by our issued patents or pending patent applications. The claims of our issued patents or patent applications when issued may not cover our commercial technology or the future products and services that we develop. We may not have freedom to operate unimpeded by the patent rights of others. Third parties

may have dominating, blocking or other patents relevant to our technology of which we are not aware. In addition, because patent applications in the United States and many foreign jurisdictions are typically not published until 18 months after the filing of certain priority documents (or, in some cases, are not published until they issue as patents) and because publications in the scientific literature often lag behind actual discoveries, we cannot be certain that others have not filed patent applications for our technology or our contemplated technology. Any such patent applications may have priority over our patent applications or issued patents, which could further require us to obtain rights from third parties to issued patents or pending patent applications covering such technologies to allow us to commercialize our technology. If another party has filed a U.S. patent application on inventions similar to ours, depending on when the timing of the filing date falls under certain patent laws, we may have to participate in a priority contest (such as an interference proceeding) declared by the USPTO to determine priority of invention in the United States. There may be prior public disclosures of which we are not aware that could invalidate our patents or a portion of the claims of our patents. Further, we may not develop additional proprietary technologies and, even if we do, they may not be patentable.

- Patent law can be highly uncertain and involve complex legal and factual questions for which important principles remain unresolved. In the United States and in many foreign jurisdictions, policies regarding the breadth of claims allowed in patents can be inconsistent. The U.S. Supreme Court and the U.S. Court of Appeals for the Federal Circuit have made, and will likely continue to make, changes in how the patent laws of the United States are interpreted. Similarly, foreign courts have made, and will likely continue to make, changes in how the patent laws in their respective jurisdictions are interpreted. We cannot predict future changes in the interpretation of patent laws or changes to patent laws that might be enacted into law by U.S. and foreign legislative bodies. Those changes may materially affect our patents or patent applications, our ability to obtain patents, or the patents and patent applications of our licensors. Future protection for our proprietary rights is uncertain because legal means afford only limited protection and may not adequately protect our rights or permit us to gain or keep our competitive advantage, which could adversely affect our financial condition and results of operations.
- Monitoring unauthorized uses of our intellectual property is difficult and costly. From time to time, we seek to analyze our competitors' therapies, products and services, and may in the future seek to enforce our patents or other proprietary rights against potential infringement. However, the steps we have taken to protect our proprietary rights may not be adequate to prevent misappropriation of our intellectual property. We may not be able to detect unauthorized use of, or take appropriate steps to enforce, our intellectual property rights. Our competitors may also independently develop similar technology. Any inability to meaningfully protect our intellectual property could result in competitors offering products that incorporate our product features, which could reduce demand for our gammaCore therapy. In addition, we may need to defend our patents from third-party challenges, including interferences, derivation proceedings, re-examination proceedings, post-grant review, inter partes review, third-party submissions, oppositions, nullity actions, or other patent proceedings. We may need to initiate infringement claims or litigation. Adverse proceedings such as litigation can be expensive, time consuming and may divert the efforts of our technical and managerial personnel, which could in turn harm our business, whether or not we receive a determination favorable to us. In addition, in an infringement proceeding, a court may decide that the patent we seek to enforce is invalid or unenforceable, or may refuse to enjoin the other party from using the technology at issue on the grounds that the patent in question does not cover the technology in question. An adverse result in any litigation could place one or more of our patents at risk of being invalidated or interpreted narrowly. Some of our competitors may be able to devote

significantly more resources to intellectual property litigation, and may have patent portfolios, including significantly broader patent portfolios, to assert against us, if we assert our rights against them. Further, because of the substantial discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be disclosed or otherwise compromised during litigation.

- We may not be able to accurately estimate or control our future operating expenses in relation to obtaining, enforcing and/or defending intellectual property, which could lead to cash shortfalls. Our operating expenses may fluctuate significantly in the future as a result of the costs of preparing, filing, prosecuting, defending and enforcing patent claims and other patent related costs, including litigation costs and the results of such litigation.
- We may also be forced to enter into cross-license agreements with competitors in order to manufacture, use, sell, offer for sale, import and/or export products or services that are covered by our competitors' intellectual property rights. If we need to use our intellectual property to enter such cross-license agreements, it may compromise the value of our intellectual property due to the fact that our competitors may be able to manufacture, use, sell, offer for sale, import and/or export our patented technology.

For additional information regarding risks related to our intellectual property, see "—Risks Related to Intellectual Property."

If serious adverse events or other undesirable side effects are identified during the use of our gammaCore therapy in investigator-sponsored trials, it may adversely affect our development of such product candidates.

Undesirable side effects caused by our gammaCore therapy or future product candidates could cause us or regulatory authorities to interrupt, delay or halt nonclinical studies and clinical trials, or could make it more difficult for us to enroll patients in our clinical trials and could, if injuries occur, result in product liability litigation. If serious adverse events or other undesirable side effects or unexpected characteristics of our gammaCore therapy or future product candidates are observed in investigator-sponsored trials, further clinical development of such product candidate may be delayed or we may not be able to continue development of such product candidate at all, and the occurrence of these events could have a material adverse effect on our business. Undesirable side effects caused by our gammaCore therapy or future product candidates could also result in the delay or denial of regulatory clearance or approval by the FDA or other regulatory authorities or in more restrictive labels than we desire.

Clinical trials are very expensive, time-consuming and difficult to design and implement and involve uncertain outcomes. Furthermore, results of earlier preclinical studies and clinical trials may not be predictive of results of future preclinical studies or clinical trials.

The risk of failure for our gammaCore therapy in additional treatment areas is high. It is difficult if not impossible to predict when or if any of our product candidates will receive regulatory clearance or approval in additional areas of indication outside of the acute treatment of eCH and the acute treatment of migraine. To obtain the requisite regulatory clearance or approvals to market and sell our gammaCore therapy in additional indications, we must demonstrate through extensive preclinical studies and clinical trials that it is safe and effective in humans for use in each additional target indication. Clinical testing is expensive and can take many years to complete, and the outcome is inherently uncertain. Failure can occur at any time during the clinical trial process.

In addition, the results of preclinical studies and early clinical trials may not be predictive of the results of later-stage preclinical studies or clinical trials. The results generated to date in preclinical studies or clinical trials for our gammaCore therapy in cluster and migraine headaches do not ensure that later preclinical studies or clinical trials will demonstrate similar results in other therapeutic indications, and it should be noted that we did not achieve the primary endpoints in our pivotal trials for cluster and

migraine headaches. There can be no assurance that the FDA and other regulatory authorities will be satisfied by data from our clinical trials even where we believe such data to be compelling. Our gammaCore therapy may fail to show the desired safety and efficacy traits in additional areas of indication in future clinical trials despite having progressed through preclinical and earlier stage clinical trials. Many companies in the pharmaceutical and medical device industries have suffered significant setbacks in later-stage clinical trials due to lack of efficacy or adverse safety profiles, notwithstanding promising results in earlier trials, and we cannot be certain that we will not face similar setbacks. Moreover, preclinical and clinical data are often susceptible to varying interpretations and analyses, and many companies that have believed their product candidates performed satisfactorily in preclinical studies and clinical trials have nonetheless failed to obtain marketing clearance or approval of their products.

In some instances, there can be significant variability in safety or efficacy results between different clinical trials of the same product candidate due to numerous factors, including changes in clinical trial procedures set forth in protocols, differences in the size and type of the patient populations, adherence to the dosing regimen and other clinical trial protocols, and the rate of dropout among clinical trial participants. If we fail to produce positive results in our planned preclinical studies or clinical trials of any of our product candidates, the development timeline and regulatory approval and commercialization prospects for our product candidates, and, correspondingly, our business and financial prospects, would be materially adversely affected.

We depend on enrollment of patients in our clinical trials for our product candidates. If we are unable to enroll patients in our clinical trials, our research and development efforts could be adversely affected.

Identifying and qualifying patients to participate in clinical trials for our gammaCore therapy in additional areas of indications is critical to our success. Successful and timely completion of clinical trials will require that we enroll a sufficient number of patients who remain in the study until its conclusion. If we are unable to enroll a sufficient number of patients in our clinical trials, our timelines for recruiting patients, conducting clinical trials and obtaining regulatory clearance or approval of our gammaCore therapy in additional areas of indication may be delayed. These delays could result in increased costs, delays in advancing our product development, delays in testing the effectiveness of our technology or termination of our clinical trials altogether.

We cannot predict how successful we will be at enrolling patients in future clinical trials. Patient enrollment is affected by other factors including:

- the eligibility criteria for the trial in question;
- the perceived risks and benefits of the product candidate in the trial;
- clinicians' and patients' perceptions as to the potential advantages of the product candidate being studied in relation to other available therapies, including any new drugs that may be approved for the indications we are investigating or drugs that may be used off-label for these indications;
- the size of the patient population required for analysis of the trial's primary endpoints;
- competition for patients for competitive product candidates undergoing clinical trials;
- the efforts to facilitate timely enrollment in clinical trials;
- the design of the trial;
- the patient referral practices of physicians;
- our ability to recruit clinical trial investigators with the appropriate competencies and experience;
- the ability to monitor patients adequately during and after treatment;

- the risk that patients enrolled in clinical trials will drop out of the trials before completion;
- the ability to obtain and maintain patient consents;
- the number of patients with the indication being studied and the difficult of diagnosing the relevant condition or disease; and
- the proximity and availability of clinical trial sites for prospective patients.

In addition, our clinical trials will compete with other clinical trials that are in the same therapeutic areas as we are targeting, and this competition will reduce the number and types of patients available to us, because some patients who might have opted to enroll in our trials may instead opt to enroll in a trial being conducted by one of our competitors.

Delays in the completion of any clinical trial of our gammaCore therapy will increase our costs, slow down our expansion into additional treatment indications and approval process, and delay or potentially jeopardize our ability to commence product sales and generate future revenue. In addition, many of the factors that may lead to a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory clearance or approval of our gammaCore therapy in additional treatment indications.

Clinical trials may be delayed, suspended or terminated for many reasons, which will increase our expenses and delay the time it takes to develop and expand our gammaCore therapy in additional treatment indications.

We may experience delays in our ongoing or future preclinical studies or clinical trials, and we do not know whether future preclinical studies or clinical trials will begin on time, need to be redesigned, enroll an adequate number of patients on time or be completed on schedule, if at all. The commencement and completion of clinical trials for the expansion of our gammaCore therapy in additional areas of indication, such as Sjôgren's syndrome and rheumatoid arthritis, may be delayed, suspended or terminated as a result of many factors, including:

- the FDA or other regulators disagreeing as to the design, protocol or implementation of our clinical trials;
- the delay or refusal of regulators or institutional review boards, or IRBs, to authorize us to commence a clinical trial at a prospective trial site;
- changes in regulatory requirements, policies and guidelines;
- delays or failure to reach agreement on acceptable terms with prospective clinical research organizations, or CROs, and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;
- delays in patient enrollment and variability in the number and types of patients available for clinical trials;
- the inability to enroll a sufficient number of patients in trials, particularly in orphan indications, to observe statistically significant treatment effects in the trial;
- having clinical sites deviate from the trial protocol or dropping out of a trial;
- negative or inconclusive results from ongoing preclinical studies or clinical trials, which may require us to conduct additional preclinical studies or clinical trials or to abandon projects that we expect to be promising;
- safety or tolerability concerns that could cause us to suspend or terminate a trial if we find that the participants are being exposed to unacceptable health risks;
- reports from preclinical or clinical testing of other similar therapies that raise safety or efficacy concerns;

- regulators or IRBs requiring that we or our investigators suspend or terminate clinical research for various reasons, including noncompliance with regulatory requirements or safety concerns, among others;
- lower than anticipated retention rates of patients and volunteers in clinical trials;
- our CROs or clinical trial sites failing to comply with regulatory requirements or meet their contractual obligations to us in a timely manner, or at all, deviating from the protocol or dropping out of a trial;
- delays relating to adding new clinical trial sites;
- difficulty in maintaining contact with patients after treatment, resulting in incomplete data;
- delays in establishing the appropriate dosage levels;
- the quality of the product candidate falling below acceptable standards;
- the inability to manufacture sufficient quantities of our gammaCore therapy to commence or complete clinical trials; and
- exceeding budgeted costs due to difficulty in accurately predicting costs associated with clinical trials.

We could also encounter delays if a clinical trial is suspended or terminated by us, by the IRBs or Ethics Committees of the institutions at which such trials are being conducted, by the Data Safety Monitoring Board for such trial or by the FDA or other regulatory authorities. Such authorities may suspend or terminate a clinical trial due to a number of factors, including failure to conduct the clinical trial in accordance with regulatory requirements, including the FDA's current Good Clinical Practice, or GCP, regulations, or our clinical protocols, inspection of the clinical trial operations or trial site by the FDA resulting in the imposition of a clinical hold, unforeseen safety issues or adverse side effects, failure to demonstrate a benefit from using a drug, changes in governmental regulations or administrative actions or lack of adequate funding to continue the clinical trial.

In addition, we may encounter delays if the FDA concludes that our financial relationships with investigators results in a perceived or actual conflict of interest that may have affected the interpretation of a study, the integrity of the data generated at the applicable clinical trial site or the utility of the clinical trial itself. Principal investigators for our clinical trials may serve as scientific advisors or consultants to us from time to time and receive cash compensation and/or stock options in connection with such services. If these relationships and any related compensation to or ownership interest by the clinical investigator carrying out the study result in perceived or actual conflicts of interest, or if the FDA concludes that the financial relationship may have affected interpretation of the study, the integrity of the data generated at the applicable clinical trial site may be questioned and the utility of the clinical trial itself may be jeopardized, which could result in the delay or rejection by the FDA. Any such delay or rejection could prevent us from commercializing any of our products currently in development.

If we experience delays in the commencement or completion of any clinical trial of our product candidates, or if any of our clinical trials are terminated, the commercial prospects of our gammaCore therapy may be harmed, and our ability to generate revenue from sales may be delayed or materially diminished.

We do not know whether any of our future preclinical studies or clinical trials will begin as planned, will need to be restructured or will be completed on schedule, or at all. Any delays in completing our clinical trials will increase our costs, slow down our product candidate development and approval process and jeopardize our ability to commence sales and generate associated revenue. Any of these occurrences may significantly harm our business, financial condition and prospects. In addition, many of the factors that

cause, or lead to, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial, suspension or revocation of expanded regulatory clearance or approval of our product candidates. Significant preclinical study or clinical trial delays also could shorten any periods during which we may have the exclusive right to commercialize our product candidates or allow our competitors to bring products to market before we do and impair our ability to successfully commercialize our product candidates.

Even if our products are approved or cleared in the United States and European Economic Area, or EEA, (which is composed of the 28 Member States of the EU plus Norway, Iceland and Liechtenstein), comparable regulatory authorities of additional foreign countries must also approve the manufacturing and marketing of our products in those countries. Approval and clearance procedures vary among jurisdictions and can involve requirements and administrative review periods different from, and greater than, those in the United States or the EEA, including additional preclinical studies or clinical trials. Any of these occurrences may harm our business, financial condition and prospects significantly.

If we fail to properly manage our anticipated growth, our business could suffer.

We have been growing rapidly in recent periods and have a relatively short history of operating as a commercial company. We intend to continue to grow and may experience periods of rapid growth and expansion, which could place a significant additional strain on our limited personnel, information technology systems and other resources. In particular, expanding our direct sales force in the United States requires significant management, financial and other supporting resources. Any failure by us to manage our growth effectively could have an adverse effect on our ability to achieve our development and commercialization goals.

To achieve our goals, we must successfully increase manufacturing output to meet potential expected customer demand. In the future, we may experience difficulties with manufacturing, quality control, component supply, inventory, distribution and shortages of qualified personnel, among other problems. These problems could result in delays in availability of our gammaCore therapy and increases in expenses. Any such delay or increased expense could adversely affect our ability to generate our revenue.

Future growth will also impose significant added responsibilities on management, including the need to identify, recruit, train and integrate additional employees. In addition, rapid and significant growth will place a strain on our administrative and operational infrastructure.

In order to manage our operations and growth we will need to continue to improve our operational and management controls, reporting and information technology systems and financial internal control procedures. If we are unable to manage our growth effectively, it may be difficult for us to execute our business strategy and our operating results and business could suffer.

If we fail to develop and retain an effective direct sales force in the United States, our business could suffer.

In order to commercialize our gammaCore therapy for the acute treatment of eCH and the acute treatment of migraine, in the United States, we must continue to build a substantial direct sales force. As we initiate our commercial launch in eCH and migraine and increase our marketing efforts, we will need to retain, grow and develop our direct sales personnel. We intend to make a significant investment in recruiting and training sales representatives and there is significant competition for such personnel. Once hired, the training process is lengthy because it requires significant education for new sales representatives to achieve the level of clinical competency with our products expected by physicians. Upon completion of the training, our sales representatives typically require lead time in the field to grow their network of accounts and achieve the productivity levels we expect them to reach in any individual territory. Furthermore, the use of our products often requires or benefits from direct support from us. If

we are unable to attract, motivate, develop and retain a sufficient number of qualified sales personnel, and if our sales representatives do not achieve the productivity levels we expect them to reach, our revenue will not grow at the rate we expect and our financial performance will suffer. Also, to the extent we hire personnel from our competitors, we may have to wait until applicable non-competition provisions have expired before deploying such personnel in restricted territories or incur costs to relocate personnel outside of such territories, and we have been in the past, and may be subject to future allegations that these new hires have been improperly solicited, or that they have divulged to us proprietary or other confidential information of their former employers. Any of these risks may adversely affect our business.

We only recently began commercializing our gammaCore therapy for the acute treatment of eCH and acute treatment of migraine headache in the United States and we may never achieve market acceptance.

We have a limited history of commercializing our product outside the United States, and a very limited history of selling our gammaCore therapy in the United States. Our gammaCore therapy received *de novo* grant and clearance by the FDA for the acute treatment of pain associated with eCH in adults in April 2017. Additionally, our gammaCore therapy was cleared by the FDA in January 2018 for the acute treatment of pain associated with migraine in adults. Furthermore, our gammaCore therapy has not yet been cleared by the FDA for treatment of chronic cluster headache or preventive treatment of CH or migraine. We have limited experience engaging in commercial activities and limited established relationships with physicians, hospitals and payors as well as third-party suppliers on whom we depend for the manufacture of our product. We may be unable to gain broader market acceptance in the countries in which we have already begun to commercialize our gammaCore therapy, or, if approved by the FDA for additional indications, unable to successfully commercialize it in the United States for a number of reasons, including:

- established competitors with strong relationships with customers, including physicians, hospitals and third-party suppliers;
- limitations in our ability to demonstrate differentiation and advantages of our product compared to competing products and the relative safety, efficacy and ease of use of our product;
- the limited size of our sales force and the learning curve required to gain experience selling our product;
- the inability to obtain sufficient supply of the components for our gammaCore therapy or secure second-source suppliers if our main suppliers are unable to fulfill our orders;
- insufficient financial or other resources to support our commercialization efforts necessary to reach profitability; and
- the introduction and market acceptance of new, more effective or less expensive competing products and technologies.

If our competitors are better able to develop and market CH and migraine treatments that are safer, more effective, less costly, easier to use or otherwise more attractive than our gammaCore therapy, our business will be adversely impacted.

The pharmaceutical and medical device industries are highly competitive and subject to rapid innovation and change. Our success depends, in part, upon our ability to establish a competitive position in the cluster and migraine markets by securing broad market acceptance of our gammaCore therapy. We believe that the primary competitive factors in the cluster and migraine markets are demonstrated clinical effectiveness, product safety, reliability and durability, ease of use, product support and service, minimal side effects and salesforce experience and relationships. We face significant competition in the United

States and internationally, which we believe will intensify over time. Many of the companies developing or marketing competing products enjoy several advantages over us, including:

- more experienced sales forces;
- greater name recognition;
- more established sales and marketing programs and distribution networks;
- earlier regulatory clearance or approval;
- long established relationships with physicians and hospitals;
- significant patent portfolios, including issued U.S. and foreign patents and pending patent applications, as well as the resources to enforce patents against us or any of our third-party suppliers and distributors;
- the ability to acquire and integrate our competitors and/or their technology;
- demonstrated ability to develop product enhancements and new product offerings;
- established history of product reliability, safety and durability;
- the ability to offer rebates or bundle multiple product offerings to offer greater discounts or incentives;
- greater financial and human resources for product development, sales, and marketing; and
- greater experience in and resources for conducting research and development, clinical studies, manufacturing, preparing regulatory submissions, obtaining regulatory clearance or approval for products and marketing approved products.

Our competitors may develop and patent processes or products earlier than us, obtain patents that may apply to us at any time, obtain regulatory clearance or approvals for competing products or processes more rapidly than us or develop more effective or less expensive products or technologies that render our technology or products obsolete or less competitive. We also face fierce competition in recruiting and retaining qualified sales, scientific, and management personnel, establishing clinical trial sites and enrolling patients in clinical studies. If our competitors are more successful than us in these matters, our business may be harmed.

Many of our competitors are large, well-established companies with substantially greater resources than us and have a long history of competing in the CH and migraine markets.

Many of our current and potential competitors are publicly traded, or are divisions of publicly-traded, major pharmaceutical and medical device companies that have substantially greater financial, technical, sales and marketing resources than we do. We will face steep competition from Allergan plc, Amgen Inc., Novartis International AG and Teva Pharmaceutical Industries Ltd., all of which are better capitalized and have a history of commercializing products around the world. We estimate the addressable U.S. market for eCH and migraine headache will be approximately $400 million and $3.8 billion in 2018, respectively. Given the size of the existing and potential market in the United States, we expect that as we continue and try to expand our commercial efforts in the United States our current and future competitors will take aggressive action to protect their current market position. We will face significant competition in establishing our market share in the United States and may encounter unforeseen obstacles and competitive challenges in the United States.

In addition, we face a particular challenge overcoming the long-standing practices by some physicians of using the headache products of our larger, more established competitors. Physicians who use our competitors' products for the treatment of cluster and migraine headache may be reluctant to try new products from a source with which they are less familiar. If these physicians do not try and subsequently adopt our product, then our financial performance will be adversely affected.

Further, a number of our competitors are currently conducting, or we anticipate will be conducting, clinical trials to demonstrate the results of their headache products. The results of these trials may be equivalent to, or potentially better than, the results of our clinical trials, which could have a material adverse effect on us.

Traditional products used to treat CH and migraine have been available for decades, while our gammaCore therapy has only been commercially available in Europe for several years, and for less than one year in the United States, and, as a result, we have a limited track record compared to our competitors.

Traditional products used to treat CH and migraine have been commercially available for decades, while we only began commercializing our gammaCore therapy in Europe to treat CH and migraine several years ago, and within the past year in the United States. Because we have a limited commercial track record compared to our competitors and our gammaCore therapy generally has been utilized by patients for less time than other headache therapies, physicians may be slower to adopt or recommend our gammaCore therapy. Further, while we believe our international commercial experience and our clinical trials support the safety and effectiveness of our gammaCore therapy for the acute treatment of eCH and migraine headache, future studies or patient experience over a longer period of time may indicate that treatment with gammaCore is less attractive than treatment with competitive products or that our gammaCore therapy causes unexpected or serious complications or other unforeseen negative effects. Such results would likely slow the adoption of our gammaCore therapy and significantly reduce our sales, which would harm our business and adversely affect our results of operations. Furthermore, if patients with traditional or other headache products were to experience unexpected or serious complications or other unforeseen effects, the market for our gammaCore therapy may be adversely affected, even if such effects are not directly attributable to our gammaCore therapy.

We may expend our limited resources to pursue a particular product candidate or disease and fail to capitalize on product candidates or diseases that may be more profitable or for which there is a greater likelihood of success.

Because we have limited financial and managerial resources, we focus our research programs and product candidates on specific conditions. As a result, we may forego or delay pursuit of opportunities with other product candidates or other diseases or conditions that may later prove to have greater commercial potential. Our resource allocation decisions may cause us to fail to capitalize on viable commercial products or profitable market opportunities. Our spending on current and future research and development programs and product candidates for specific conditions may not yield any commercially viable products.

Our international operations subject us to certain operating risks, which could adversely impact our results of operations and financial condition.

Sales of gammaCore outside the United States represented a substantial portion of our net sales in the years ended December 31, 2016 and 2017, respectively. In 2012, we began selling gammaCore in the EU through distributors. As of February 1, 2018, we sell gammaCore directly in 14 countries in the EU and through distributors and agents located in Munich, Germany and Leeds, UK. The sale and shipment of gammaCore across international borders, as well as the purchase of components from international sources, subjects us to U.S. and foreign governmental trade, import and export, and customs regulations and laws.

Compliance with these regulations and laws is costly and exposes us to penalties for non-compliance. Other laws and regulations that can significantly impact us include various anti-bribery laws, including the U.S. Foreign Corrupt Practices Act, as well as export controls laws. Any failure to comply with applicable legal and regulatory obligations could impact us in a variety of ways that include, but are not limited to, significant criminal, civil and administrative penalties, including imprisonment of individuals, fines and penalties, denial of export privileges, seizure of shipments, restrictions on certain business activities and exclusion or debarment from government contracting.

The administration of President Trump has publicly supported potential trade proposals, including import tariffs and other tariffs, including the U.S. administration's recent introduction of tariffs on China and China's retaliatory tariffs on certain products from the United States, as well as modifications to international trade policy and other changes that may affect U.S. trade relations with other countries. We source a significant amount of the components used in gammaCore from Chinese sources so any tariffs or other trade restrictions impacting the import of these components from China could have a material adverse impact on us.

Our international operations expose us and our distributors to risks inherent in operating in foreign jurisdictions. These risks include:

- difficulties in enforcing our intellectual property rights and in defending against third-party threats and intellectual property enforcement actions against us, our distributors or any of our third-party suppliers;
- reduced or varied protection for intellectual property rights in some countries;
- pricing pressure that we may experience internationally;
- a shortage of high-quality salespeople and distributors;
- third-party reimbursement policies that may require some of the patients who receive our products to directly absorb medical costs or that may necessitate the reduction of the selling prices of gammaCore;
- competitive disadvantage to competition with established business and customer relationships;
- foreign currency exchange rate fluctuations;
- the imposition of additional U.S. and foreign governmental controls or regulations;
- economic instability;
- changes in duties and tariffs, license obligations and other non-tariff barriers to trade;
- the imposition of restrictions on the activities of foreign agents, representatives and distributors;
- scrutiny of foreign tax authorities which could result in significant fines, penalties and additional taxes being imposed on us;
- laws and business practices favoring local companies;
- longer payment cycles;
- difficulties in maintaining consistency with our internal guidelines;
- difficulties in enforcing agreements and collecting receivables through certain foreign legal systems;
- the imposition of costly and lengthy new export licensing requirements;
- the imposition of U.S. or international sanctions against a country, company, person or entity with whom we do business that would restrict or prohibit continued business with the sanctioned country, company, person or entity; and
- the imposition of new trade restrictions.

If we experience any of these risks, our sales in non-U.S. jurisdictions may be harmed and our results of operations would suffer.

Our results may be impacted by changes in foreign currency exchange rates.

We have international operations and, as a result, an increase in the value of the U.S. dollar relative to foreign currencies could require us to reduce our selling price or risk making our products less competitive in international markets, or our costs could increase. Also, if our international sales increase, we may enter into a greater number of transactions denominated in non-U.S. dollars, which could expose us to increased foreign currency risks, including currency fluctuations and exchange rate risks. We do not currently engage in any hedging transactions. If we are unable to address these risks and challenges effectively, our international operations may not be successful and our business could be harmed.

We may not be able to establish or strengthen our brand.

We believe that establishing and strengthening the electroCore and gammaCore brands is critical to achieving widespread acceptance of our gammaCore therapy to treat eCH and migraine, particularly because of the highly competitive nature of the market for headache therapies. Promoting and positioning our brand will depend largely on the success of our marketing efforts and our ability to provide physicians with a reliable product for successful treatment of cluster and migraine headaches. Given the established nature of our competitors, and our lack of commercialization in the United States, it is likely that our future marketing efforts will require us to incur significant additional expenses. These brand promotion activities may not yield increased sales and, even if they do, any sales increases may not offset the expenses we incur to promote our brand. If we fail to successfully promote and maintain our brand, or if we incur substantial expenses in an unsuccessful attempt to promote and maintain our brand, our gammaCore therapy may not be accepted by physicians, which would adversely affect our business, results of operations and financial condition.

We may face product liability claims that could result in costly litigation and significant liabilities.

Manufacturing and marketing of gammaCore, and clinical testing of our gammaCore therapy to initially treat eCH and migraine, may expose us to individual product liability claims, class action lawsuits or actions, and other individual or mass tort claims. Although we have, and intend to maintain, liability insurance, the insurers may deny our claims, coverage limits of our insurance policies may not be adequate and one or more successful claims brought against us may have a material adverse effect on our business and results of operations. These risks are heightened in the event any product recalls take place as a result of any product design defect or defect in product warnings or labeling. Product liability claims could negatively affect our reputation, our continued product sales and our ability to obtain and maintain regulatory clearance or approval for our products.

If we fail to retain our key executives or recruit and hire new employees, our operations and financial results may be adversely effected while we attract other highly qualified personnel.

Our future success depends, in part, on our ability to continue to retain our executive officers and other key employees and recruit and hire new employees. All of our executive officers and other employees are at-will employees, and therefore may terminate employment with us at any time with no advance notice. The replacement of any of our key personnel likely would involve significant time and costs, may significantly delay or prevent the achievement of our business objectives and may harm our business.

In addition, many of our employees have become or will soon become vested in a substantial amount of stock or number of stock options. Our employees may be more likely to leave us if the shares they own or the shares underlying their vested options have significantly appreciated in value relative to the original purchase prices of the shares or the exercise prices of the options, or if the exercise prices of the options that they hold are significantly below the market price of our common stock. Further, our employees' ability to exercise those options and sell their stock in a public market after the closing of this offering may result in a higher than normal turnover rate.

Our future success also depends on our ability to retain executive officers and other key employees and attract new key employees. Many executive officers and employees in the pharmaceutical and medical device industries are subject to strict non-compete or confidentiality agreements with their employers, which may include our main competitors. In addition, some of our existing and future employees are or may be subject to confidentiality agreements with previous employers. Our competitors may allege breaches of and seek to enforce such non-compete agreements or initiate litigation based on such confidentiality agreements. Such litigation, whether or not meritorious, may impede our ability to attract or use executive officers and other key employees who have been employed by our competitors and may result in intellectual property claims against us. It is likely that we will experience similar aggressive lawsuit tactics by our competitors as they seek to protect their market position, particularly as we prepare to expand in new or existing markets.

Our employees, independent contractors, consultants, commercial collaborators, principal investigators, CROs and vendors may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements.

We are exposed to the risk that our employees, independent contractors, consultants, commercial collaborators, principal investigators, CROs and vendors may engage in fraudulent conduct or other illegal activity. Misconduct by these parties could include intentional, reckless or negligent conduct or unauthorized activities that violates (1) the laws and regulations of the FDA and other similar regulatory authorities, including those laws requiring the reporting of true, complete and accurate information to such authorities, (2) manufacturing standards, (3) federal and state data privacy, security, fraud and abuse and other healthcare laws and regulations in the United States and abroad and (4) laws that require the true, complete and accurate reporting of financial information or data. In particular, sales, marketing and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, misconduct, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Misconduct by these parties could also involve the improper use of individually identifiable information, including information obtained in the course of clinical trials, creating fraudulent data in our preclinical studies or clinical trials or illegal misappropriation of product candidates, which could result in regulatory sanctions and serious harm to our reputation.

Although we intend to adopt a code of business conduct and ethics, it is not always possible to identify and deter misconduct by employees and other third parties, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. Additionally, we are subject to the risk that a person or government could allege such fraud or other misconduct, even if none occurred. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, including the imposition of significant civil, criminal and administrative penalties, including damages, fines, disgorgement, imprisonment, exclusion from participation in government healthcare programs, such as Medicare and Medicaid, contractual damages, reputational harm and the curtailment or restructuring of our operations.

Risk Related to our Dependence on Third Parties

We rely upon third-party, single-source, and in certain cases sole-source, suppliers for many of the components and materials used in gammaCore, and for critical manufacturing and packaging services, making us vulnerable to supply shortages and problems and price fluctuations, which could harm our business.

A number of the critical components used in gammaCore are supplied to us from single-source, or in certain cases sole-source, suppliers. Our suppliers may encounter problems during manufacturing for a

variety of reasons, including, for example, failure to follow specific protocols and procedures, failure to comply with applicable legal and regulatory requirements, equipment malfunction and environmental factors, failure to properly conduct their own business affairs, and infringement of third-party intellectual property rights, any of which could delay or impede their ability to meet our requirements. Our ability to supply gammaCore commercially depends, in part, on our ability to obtain a supply of these components that has been manufactured in accordance with regulatory requirements and in sufficient quantities for commercialization and clinical testing. We have not entered into manufacturing, supply or quality agreements with all of our single-source and sole-source suppliers, some of which supply components critical to our products. Although we believe that long-term agreements with our suppliers are not necessary as all the components in our products are either high-volume, non-custom commodity components or are readily available from multiple vendors, there can be no assurance that our single-source or sole-source suppliers will be able to meet our demand for their products and services, either because of the informal nature of our arrangements with those suppliers, or our limited experience with those suppliers, or due to our relative importance as a customer to those suppliers. It may be difficult for us to assess their ability to timely meet our demand in the future based on past performance. While our suppliers have generally met our demand for their products on a timely basis in the past, they may subordinate our needs in the future to their other customers.

Establishing additional or replacement suppliers for the components or processes used in gammaCore, if required, may not be accomplished quickly. If we are able to find a replacement supplier, such replacement supplier would need to be qualified and may require additional regulatory authority approval, which could result in further delay. While we seek to maintain adequate inventory of the single-source or sole-source components and materials used in our products, any interruption or delay in the supply of components or materials, or our inability to obtain components or materials from alternate sources at acceptable prices in a timely manner, could impair our ability to meet the demand of our customers and cause them to cancel orders.

If our third-party suppliers fail to deliver the required commercial quantities of materials, or the level of services we require, on a timely basis and at commercially reasonable prices, and we are unable to find one or more replacement suppliers capable of production at a substantially equivalent cost in substantially equivalent volumes and quality and on a timely basis, the continued commercialization of gammaCore would be impeded, delayed, limited or prevented, which could harm our business, results of operations, financial condition and prospects.

We rely in part on a small group of third-party distributors to effectively distribute our products outside the United States.

We depend in part on a small group of third-party distributors for the marketing and selling of our products in certain territories in Europe. We depend on these distributors' efforts to market our products, yet we are unable to control their efforts completely. These distributors typically sell a variety of other non-competing products that may limit the resources they dedicate to selling our gammaCore therapy. In addition, we are unable to ensure that our distributors comply with all applicable laws regarding the sale of our products. If our distributors fail to effectively market and sell gammaCore in full compliance with applicable laws, our operating results and business may suffer. Recruiting and retaining qualified third-party distributors and training them in our technology and product offerings requires significant time and resources. To develop and expand our distribution, we must continue to scale and improve our processes and procedures that support our distributors. Further, if our relationship with a successful distributor terminates, we may be unable to replace that distributor without disruption to our business. If we fail to maintain positive relationships with our distributors, fail to develop new relationships with other distributors, including in new markets, fail to manage, train or incentivize existing distributors effectively, or fail to provide distributors with competitive products on attractive terms, or if these distributors are not successful in their sales efforts, our revenue may decrease and our operating results, reputation and business may be harmed.

We intend to rely upon only one third-party distributor to distribute our products in the United States.

We intend to rely upon one specialty pharmaceutical distributor, who collaborates with a large network of specialty pharmacies, to distribute our products in the United States. We depend on this distributor to distribute our products, which includes providing adjudication of prescriptions and reimbursement claims, as well as patient support and training services, but are unable to control its performance. This distributor may distribute a variety of other specialty pharmaceutical products that may limit the resources dedicated to the distribution of our products. In addition, we are unable to ensure that this distributor will comply with all applicable laws related to the distribution of our products. If this distributor fails to distribute our products in compliance with applicable laws, our operating results and business may suffer. Recruiting, training and retaining third-party distributors in the distribution of our proprietary product offerings requires significant time and resources. In addition, an affiliate of this distributor provides pharmaceutical patient hub services for patients that are prescribed our gammaCore therapy, and has been electronically integrated with our proprietary data warehouse system and web portal. If our relationship with this distributor terminates, we may be unable to replace this distributor without disruption to our business. Any new distributor may not integrate as seamlessly with our data warehouse system and web portal, leading to disruptions in service for patients that are prescribed our therapy, which may cause these patients to seek alternative therapy. Our distributor also may not pay us on time or at all due to disputes, financial issues or bankruptcy events. Any such payment issues may materially affect our operating results until we are able to resolve the issues, or find a sufficient replacement for our distributor.

We rely on third parties to conduct and support our clinical trials, and those third parties may not perform satisfactorily, including failing to meet deadlines for the completion of such trials.

We do not independently conduct clinical trials for our product candidates. We rely on third parties, such as CROs, clinical data management organizations, medical institutions and clinical investigators, to perform this function. Our reliance on these third parties for clinical development activities reduces our control over these activities but does not relieve us of our responsibilities. Furthermore, some of the sites for our clinical trials are outside the United States. The performance of these sites may be adversely affected by various issues, including less advanced medical infrastructure, lack of familiarity with conducting clinical trials in accordance with U.S. standards, insufficient training of personnel, communication difficulties or change in local regulations. We remain responsible for ensuring that each of our clinical trials is conducted in accordance with the general investigational plan and protocols for the study. Moreover, the FDA requires us to comply with GCP for conducting, recording and reporting the results of clinical trials to assure that data and reported results are credible and accurate and that the rights, integrity and confidentiality of patients in clinical trials are protected. Furthermore, these third parties may also have relationships with other entities, including our competitors. If these third parties do not successfully carry out their contractual duties, meet expected deadlines or conduct our clinical trials in accordance with regulatory requirements or our stated protocols, we will not be able to obtain, or may be delayed in obtaining, regulatory clearance or approval for our product candidates and will not be able to, or may be delayed in our efforts to, successfully commercialize our products.

We also rely on other third parties to store and distribute supplies for our clinical trials. Any performance failure on the part of our existing or future distributors could delay clinical development or regulatory clearance or approval of our product candidates or commercialization of our products, producing additional losses and depriving us of potential product revenues.

If we do not successfully enter into future collaborations for the development and commercialization of our gammaCore therapy in international markets our business may be harmed.

We may choose to enter into collaboration agreements with third parties with respect to development and commercialization of our gammaCore therapy in international markets. We will have limited control

over the amount and timing of resources that our collaborators dedicate to the development or commercialization of our gammaCore therapy. Our ability to generate revenues from these arrangements will depend in part on our collaborators' abilities to successfully perform the functions assigned to them in these arrangements.

Collaborations involving our gammaCore therapy, such as our collaboration with Desitin, are subject to numerous risks, which may include the following:

- collaborators have significant discretion in determining the efforts and resources that they will apply to a collaborations;
- collaborators may not pursue development and commercialization of our product candidates or may elect not to continue or renew development or commercialization programs based on clinical trial results, changes in their strategic focus due to the acquisition of competitive products, availability of funding or other external factors, such as a business combination that diverts resources or creates competing priorities;
- collaborators may delay clinical trials, provide insufficient funding for a clinical trial, stop a clinical trial, abandon a product candidate, repeat or conduct new clinical trials or require a new formulation of a product candidate for clinical testing;
- collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with our products or product candidates;
- a collaborator with marketing and distribution rights to one or more products may not commit sufficient resources to their marketing and distribution;
- collaborators may not properly maintain or defend our intellectual property rights or may use our intellectual property or proprietary information in a way that gives rise to actual or threatened litigation that could jeopardize or invalidate our intellectual property or proprietary information or expose us to potential liability;
- disputes may arise between us and a collaborator that cause the delay or termination of the research, development or commercialization of our product candidates or that result in costly litigation or arbitration that diverts management attention and resources;
- collaborations may be terminated and, if terminated, may result in a need for additional capital to pursue further development or commercialization of the applicable product candidates; and
- collaborators may own or co-own intellectual property covering our products that result from our collaborating with them, and in such cases, we would not have the exclusive right to commercialize such intellectual property.

Any termination or disruption of any future collaboration could result in delayed development of product candidates, increased cost to develop product candidates or termination of development of a product candidate.

If we are not able to establish or maintain collaborations, we may have to alter some of our future development and commercialization plans.

Our product development programs and the potential commercialization of our gammaCore therapy will require substantial additional capital to fund expenses. For some of our product candidates, we may decide to collaborate with pharmaceutical and medical device companies for the future development and potential commercialization of those product candidates. Furthermore, we may find that our programs require the use of proprietary rights held by third parties, and the growth of our business may depend in part on our ability to acquire, in-license or use these proprietary rights.

We face significant competition in seeking appropriate collaborators, and a number of more established companies may also be pursuing strategies to license or acquire third-party intellectual property rights that we may consider attractive. These established companies may have a competitive advantage over us due to their size, financial resources and greater clinical development and commercialization capabilities. In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. Whether we reach a definitive agreement for a collaboration will depend upon, among other things, our assessment of the collaborator's resources and expertise, the terms and conditions of the proposed collaboration and the proposed collaborator's evaluation of a number of factors. Those factors may include the design or results of clinical trials, the likelihood of clearance or approval by the FDA, compliance with the Essential Requirements of the EU Medical Devices Directive or similar foreign regulations, the potential market for the subject product candidate, the costs and complexities of manufacturing and delivering such product candidate to patients, competing products, the existence of uncertainty with respect to our ownership of technology, which can exist if there is a challenge to such ownership without regard to the merits of the challenge, and industry and market conditions generally. The collaborator may also consider alternative product candidates or technologies for similar indications that may be available to collaborate on and whether such a collaboration could be more attractive than the one with us for our product candidate. We may also be restricted under existing license agreements from entering into agreements on certain terms with potential collaborators. Collaborations are complex and time-consuming to negotiate and document. In addition, there have been a significant number of recent business combinations among large pharmaceutical companies that have resulted in a reduced number of potential future collaborators. We may not be able to negotiate collaborations on a timely basis, on acceptable terms, or at all. Even if we are able to obtain a license to intellectual property of interest, we may not be able to secure exclusive rights, in which case others could use the same rights and compete with us. If we are unable to successfully obtain rights to required third-party intellectual property rights or maintain the existing intellectual property rights we have, we may have to curtail the development of such product candidate, reduce or delay its development program or one or more of our other development programs, delay its potential commercialization or reduce the scope of any sales or marketing activities, or increase our expenditures and undertake development or commercialization activities at our own expense. If we elect to increase our expenditures to fund development or commercialization activities on our own, we may need to obtain additional capital, which may not be available to us on acceptable terms, or at all. If we do not have sufficient funds, we may not be able to further develop our product candidates or bring them to market and generate product revenue.

We, or third-party manufacturers on whom we rely, may be unable to successfully scale-up manufacturing of our gammaCore therapy or its component parts in sufficient quality and quantity, which would delay or prevent us from developing and commercializing any approved products.

In order to conduct clinical trials of our gammaCore therapy and commercialize any approved products, we, or our manufacturers, will need to manufacture them in large quantities. We, or our manufacturers, may be unable to successfully increase manufacturing capacity in a timely or cost-effective manner, or at all. In addition, quality issues may arise during scale-up activities. If we, or any of our manufacturers, are unable to successfully scale up manufacturing in sufficient quality and quantity, the development, testing, and clinical trials of our gammaCore therapy may be delayed or infeasible, and regulatory clearance, approval or commercial launch of any resulting product may be delayed or not obtained, which could significantly harm our business. If we are unable to obtain or maintain third-party manufacturing for commercial supply of our product candidates, or to do so on commercially reasonable terms, we may not be able to develop and commercialize our gammaCore therapy successfully.

We are required to maintain high levels of inventory due to our single-source supply vendors, which could consume a significant amount of our resources, reduce our cash flows and lead to inventory impairment charges.

Our gammaCore therapy consists of a substantial number of individual components. In order to market and sell gammaCore effectively, we often must maintain high levels of inventory of the product and its

components. The manufacturing process requires lengthy lead times during which components of our gammaCore therapy may become obsolete, and we may over- or under-estimate the amount needed of a given component, in which case we may expend extra resources or be constrained in the amount of end product that we can produce. As compared to direct manufacturers, our dependence on third-party manufacturers exposes us to greater lead times increasing our risk of inventory obsolesce comparatively.

Risks Related to Intellectual Property

We rely on a variety of intellectual property rights, and if we are unable to maintain or protect our intellectual property, our business and results of operations will be harmed.

Our commercial success will depend, in part, on our ability to obtain and maintain intellectual property protection for our products, processes, and related technologies in the United States, Europe and elsewhere, successfully defend our intellectual property rights against third-party challenges and successfully enforce our intellectual property rights to prevent third-party infringement. While we rely primarily upon a combination of patents, copyrights, trademarks and trade secret protection, as well as nondisclosure, confidentiality and other contractual agreements to protect the intellectual property related to our brands, products and other proprietary technologies, protection derived from patents is relatively limited.

The process of obtaining patent protection is expensive and time-consuming, and we may not be able to prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner. We may choose not to seek patent protection for certain innovations or products and may choose not to pursue patent protection in certain jurisdictions, and under the laws of certain jurisdictions, patents or other intellectual property rights may be unavailable or limited in scope and, in any event, any patent protection we obtain may be limited. As a result, some of our products are not, and in the future may not be, protected by patents. We generally apply for patents in those countries where we intend to make, have made, use, offer for sale, or sell products and where we assess the risk of infringement to justify the cost of seeking patent protection. However, we do not seek protection in all countries where we sell products and we may not accurately predict all the countries where patent protection would ultimately be desirable. If we fail to timely file a patent application in any such country or major market, we may be precluded from doing so at a later date. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products and, further, may export otherwise infringing products to territories in which we have patent protection that may not be sufficient to terminate infringing activities.

Furthermore, we cannot guarantee that any patents will be issued from any pending or future owned or licensed patent applications, or that any current or future patents will provide us with any meaningful protection or competitive advantage. Even if issued, existing or future patents may be challenged, including with respect to ownership, narrowed, invalidated, held unenforceable or circumvented, any of which could limit our ability to prevent competitors and other third parties from developing and marketing similar products or limit the length of terms of patent protection we may have for our products and technologies. Other companies may also design around technologies we have patented, licensed or developed. In addition, the issuance of a patent does not give us the right to practice the patented invention. Third parties may have blocking patents that could prevent us from marketing our products or practicing our own patented technology.

The patent positions of pharmaceutical and medical device companies can be highly uncertain and involve complex legal, scientific and factual questions for which important legal principles remain unresolved. The standards that the USPTO and its foreign counterparts use to grant patents are not always applied predictably or uniformly. Changes in either the patent laws, implementing regulations or the interpretation of patent laws may diminish the value of our rights. The legal systems of certain countries do not protect intellectual property rights to the same extent as the laws of the United States, and many companies have encountered significant problems in protecting and defending such rights in foreign jurisdictions.

Because patent applications in the United States, Europe and many other jurisdictions are typically not published until 18 months after filing, or in some cases not at all, and because publications of discoveries in scientific literature lag behind actual discoveries, we cannot be certain that we were the first to conceive or reduce to practice the inventions claimed in our issued patents or pending patent applications, or that we were the first to file for protection of the inventions set forth in our patents or pending patent applications. We can give no assurance that all of the potentially relevant art relating to our patents and patent applications has been found; overlooked prior art could be used by a third party to challenge the validity, enforceability and scope of our patents or prevent a patent from issuing from a pending patent application. As a result, we may not be able to obtain or maintain protection for certain inventions. Therefore, the validity, enforceability and scope of our patents in the United States, Europe and in other countries cannot be predicted with certainty and, as a result, any patents that we own or license may not provide sufficient protection against our competitors.

Third parties may challenge any existing patent or future patent we own or license through adversarial proceedings in the issuing offices or in court proceedings, including as a response to any assertion of our patents against them. In any of these proceedings, a court or agency with jurisdiction may find our patents invalid and/or unenforceable, or even if valid and enforceable, insufficient to provide protection against competing products and services sufficient to achieve our business objectives. We may be subject to a third-party pre-issuance submission of prior art to the USPTO, or reexamination by the USPTO if a third party asserts a substantial question of patentability against any claim of a U.S. patent we own or license. The adoption of the Leahy-Smith America Invents Act, or the Leahy-Smith Act, in September 2011 established additional opportunities for third parties to invalidate U.S. patent claims, including inter partes review and post-grant review proceedings. Outside of the United States, patents we own or license may become subject to patent opposition or similar proceedings, which may result in loss of scope of some claims or the entire patent. In addition, such proceedings are very complex and expensive, and may divert our management's attention from our core business. If any of our patents are challenged, invalidated, circumvented by third parties or otherwise limited or expire prior to the commercialization of our products, and if we do not own or have exclusive rights to other enforceable patents protecting our products or other technologies, competitors and other third parties could market products and use processes that are substantially similar to, or superior to, ours and our business would suffer.

The degree of future protection for our proprietary rights is uncertain because legal means afford only limited protection and may not adequately protect our rights or permit us to gain or keep a competitive advantage. For example:

- others may be able to develop products that are similar to, or better than, ours in a way that is not covered by the claims of our patents;
- we might not have been the first to conceive or reduce to practice the inventions covered by our patents or pending patent applications;
- we might not have been the first to file patent applications for our inventions;
- any patents that we obtain may not provide us with any competitive advantages or may ultimately be found invalid or unenforceable; or
- we may not develop additional proprietary technologies that are patentable.

We may become involved in lawsuits to protect or enforce our patents, which could be expensive, time-consuming and unsuccessful.

Competitors may infringe our patents. To counter infringement or unauthorized use, we may be required to file one or more lawsuit and assert infringement claims, which can be expensive and time-consuming. In addition, in an infringement proceeding, a court may decide that a patent of ours is invalid or unenforceable, or may refuse to enjoin the other party from using the technology at issue on the grounds

that our patents do not cover the technology in question. The standards that courts use to interpret patents are not always applied predictably or uniformly and can change, particularly as new technologies develop. As a result, we cannot predict with certainty how much protection, if any, will be given to our patents if we attempt to enforce them and they are challenged in court. Further, even if we prevail against an infringer in U.S. district court, there is always the risk that the infringer will file an appeal and the district court judgment will be overturned at the appeals court and/or that an adverse decision will be issued by the appeals court relating to the validity or enforceability of our patents. An adverse result in any litigation proceeding could put one or more of our patents at risk of being invalidated or interpreted in a manner insufficient to achieve our business objectives.

Our commercial success depends significantly on our ability to operate without infringing upon the intellectual property rights of third parties.

The pharmaceutical and medical device industries are subject to rapid technological change and substantial litigation regarding patent and other intellectual property rights. Our competitors in both the United States and abroad, many of which have substantially greater resources and have made substantial investments in patent portfolios and competing technologies, may have applied for or obtained or may in the future apply for or obtain, patents that will prevent, limit or otherwise interfere with our ability to make, use and sell our products and services. Numerous third-party patents exist in the fields relating to our products and services, and it is difficult for industry participants, including us, to identify all third-party patent rights relevant to our products, services and technologies. Moreover, because some patent applications are maintained as confidential for a certain period of time, we cannot be certain that third parties have not filed patent applications that cover our products, services and technologies.

Patents could be issued to third parties that we may ultimately be found to infringe. Third parties may have or obtain valid and enforceable patents or proprietary rights that could block us from developing products using our technology. Our failure to obtain or maintain a license to any technology that we require may materially harm our business, financial condition and results of operations. Furthermore, we would be exposed to a threat of litigation.

From time to time, we may be party to, or threatened with, litigation or other proceedings with third parties, including non-practicing entities, who allege that our products, components of our products, services, and/or proprietary technologies infringe, misappropriate or otherwise violate their intellectual property rights. The types of situations in which we may become a party to such litigation or proceedings include:

- we or our collaborators may initiate litigation or other proceedings against third parties seeking to invalidate the patents held by those third parties or to obtain a judgment that our products or processes do not infringe those third parties' patents;
- we or our collaborators may participate at substantial cost in International Trade Commission proceedings to abate importation of products that would compete unfairly with our products;
- if our competitors file patent applications that claim technology also claimed by us or our licensors, we or our licensors may be required to participate in interference, derivation or opposition proceedings to determine the priority of invention, which could jeopardize our patent rights and potentially provide a third party with a dominant patent position;
- if third parties initiate litigation claiming that our processes or products infringe their patent or other intellectual property rights, we and our collaborators will need to defend against such proceedings;
- if third parties initiate litigation or other proceedings seeking to invalidate patents owned by or licensed to us or to obtain a declaratory judgment that their products, services, or

technologies do not infringe our patents or patents licensed to us, we will need to defend against such proceedings;

- we may be subject to ownership disputes relating to intellectual property, including disputes arising from conflicting obligations of consultants or others who are involved in developing our products; and
- if a license to necessary technology is terminated, the licensor may initiate litigation claiming that our processes or products infringe or misappropriate its patent or other intellectual property rights and/or that we breached our obligations under the license agreement, and we and our collaborators would need to defend against such proceedings.

These lawsuits and proceedings, regardless of merit, are time-consuming and expensive to initiate, maintain, defend or settle, and could divert the time and attention of managerial and technical personnel, which could materially adversely affect our business. Any such claim could also force use to do one or more of the following:

- incur substantial monetary liability for infringement or other violations of intellectual property rights, which we may have to pay if a court decides that the product, service, or technology at issue infringes or violates the third party's rights, and if the court finds that the infringement was willful, we could be ordered to pay treble damages and the third party's attorneys' fees;
- pay substantial damages to our customers or end users to discontinue use or replace infringing technology with non-infringing technology;
- stop manufacturing, offering for sale, selling, using, importing, exporting or licensing the product or technology incorporating the allegedly infringing technology or stop incorporating the allegedly infringing technology into such product, service, or technology;
- obtain from the owner of the infringed intellectual property right a license, which may require us to pay substantial upfront fees or royalties to sell or use the relevant technology and which may not be available on commercially reasonable terms, or at all;
- redesign our products, services, and technology so they do not infringe or violate the third party's intellectual property rights, which may not be possible or may require substantial monetary expenditures and time;
- enter into cross-licenses with our competitors, which could weaken our overall intellectual property position;
- lose the opportunity to license our technology to others or to collect royalty payments based upon successful protection and assertion of our intellectual property against others;
- find alternative suppliers for non-infringing products and technologies, which could be costly and create significant delay; or
- relinquish rights associated with one or more of our patent claims, if our claims are held invalid or otherwise unenforceable.

Some of our competitors may be able to sustain the costs of complex intellectual property litigation more effectively than we can because they have substantially greater resources. In addition, intellectual property litigation, regardless of its outcome, may cause negative publicity, adversely impact prospective customers, cause product shipment delays, or prohibit us from manufacturing, marketing or otherwise commercializing our products, services and technology. Any uncertainties resulting from the initiation and continuation of any litigation could have a material adverse effect on our ability to raise additional funds or otherwise have a material adverse effect on our business, results of operation, financial condition or cash flows.

In addition, we may indemnify our customers and distributors against claims relating to the infringement of intellectual property rights of third parties related to our products. Third parties may assert infringement claims against our customers or distributors. These claims may require us to initiate or defend protracted and costly litigation on behalf of our customers or distributors, regardless of the merits of these claims. If any of these claims succeed, we may be forced to pay damages on behalf of our customers, suppliers or distributors, or may be required to obtain licenses for the products or services they use. If we cannot obtain all necessary licenses on commercially reasonable terms, our customers may be forced to stop using our products or services.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. There could also be public announcements of the results of hearings, motions or other interim proceedings or developments, which could have a material adverse effect on the price of our common stock. If securities analysts or investors perceive these results to be negative, it could have a material adverse effect on the price of our common stock. The occurrence of any of these events may have a material adverse effect on our business, results of operation, financial condition or cash flows.

If we are unable to protect the confidentiality of our trade secrets, our business and competitive position may be harmed.

In addition to patent, copyright, and trademark protection, we also rely on trade secrets, including unpatented know-how, technology and other proprietary information, to maintain our competitive position. We seek to protect our trade secrets, in part, by entering into non-disclosure and confidentiality agreements with parties who have access to them, such as our consultants and vendors, or our former or current employees. We also enter into confidentiality and invention and patent assignment agreements with our employees and consultants. Despite these efforts, however, any of these parties may breach the agreements and disclose our trade secrets and other unpatented or unregistered proprietary information, and once disclosed, we are likely to lose trade secret protection. Monitoring unauthorized uses and disclosures of our intellectual property is difficult, and we do not know whether the steps we have taken to protect our intellectual property will be effective. In addition, we may not be able to obtain adequate remedies for any such breaches. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive and time-consuming, and the outcome is unpredictable. In addition, some courts inside and outside the United States are less willing or unwilling to enforce trade secret protection.

Further, our competitors may independently develop knowledge, methods and know-how similar, equivalent, or superior to our proprietary technology. Competitors could purchase our products and attempt to reverse engineer and replicate some or all of the competitive advantages we derive from our development efforts, willfully infringe our intellectual property rights, design around our protected technology, or develop their own competitive technologies that fall outside of our intellectual property rights. In addition, our key employees, consultants, suppliers or other individuals with access to our proprietary technology and know-how may incorporate that technology and know-how into projects and inventions developed independently or with third parties. As a result, disputes may arise regarding the ownership of the proprietary rights to such technology or know-how, and any such dispute may not be resolved in our favor. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor, we would have no right to prevent them, or those to whom they communicate it, from using that technology or information to compete with us and our competitive position could be adversely affected. If our intellectual property is not adequately protected so as to protect our market against competitors' products and processes, our competitive position could be adversely affected, as could our business.

Changes in patent law could diminish the value of patents in general, thereby impairing our ability to protect our existing and future products and processes.

As is the case with other pharmaceutical and medical device companies, our success is heavily dependent on intellectual property, particularly patents. Obtaining and enforcing patents in the biopharmaceutical industry involves both technological and legal complexity, and is therefore costly, time-consuming, and inherently uncertain. In addition, the United States has recently enacted and is currently implementing wide-ranging patent reform legislation. Recent patent reform legislation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents. On September 16, 2011, the Leahy-Smith Act was signed into law. The Leahy-Smith Act includes a number of significant changes to U.S. patent law. These include provisions that affect the way patent applications are prosecuted, redefine prior art, may affect patent litigation, and switched the United States patent system from a "first-to-invent" system to a "first-to-file" system. Under a "first-to-file" system, assuming the other requirements for patentability are met, the first inventor to file a patent application generally will be entitled to the patent on an invention regardless of whether another inventor had conceived or reduced to practice the invention earlier. The USPTO recently developed new regulations and procedures to govern administration of the Leahy-Smith Act, and many of the substantive changes to patent law associated with the Leahy-Smith Act, in particular, the first-to-file provisions, only became effective on March 16, 2013. Accordingly, it is not clear what, if any, impact the Leahy-Smith Act will have on the operation of our business. The Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could have a material adverse effect on our business and financial condition.

In addition, patent reform legislation may pass in the future that could lead to additional uncertainties and increased costs surrounding the prosecution, enforcement and defense of our patents and pending patent applications. Recent U.S. Supreme Court rulings have narrowed the scope of patent protection available in certain circumstances and weakened the rights of patent owners in certain situations. Furthermore, the U.S. Supreme Court and the U.S. Court of Appeals for the Federal Circuit have made, and will likely continue to make, changes in how the patent laws of the United States are interpreted. Similarly, foreign courts have made, and will likely continue to make, changes in how the patent laws in their respective jurisdictions are interpreted. We cannot predict future changes in the interpretation of patent laws or changes to patent laws that might be enacted into law by United States and foreign legislative bodies. Those changes may materially affect our patents or patent applications and our ability to obtain additional patent protection in the future.

Obtaining and maintaining patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

The USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment, and other similar provisions during the patent application process. In addition, periodic maintenance fees on issued patents often must be paid to the USPTO and foreign patent agencies over the lifetime of the patent. While an unintentional lapse can in many cases be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. Non-compliance events that could result in abandonment or lapse of a patent or patent application include, but are not limited to, failure to respond to official actions within prescribed time limits, non-payment of fees and failure to properly legalize and submit formal documents. If we fail to maintain the patents and patent applications covering our products or procedures, we may not be able to stop a competitor from marketing products that are the same as or similar to our own, which would have a material adverse effect on our business.

If our trademarks and trade names are not adequately protected, then we may not be able to build name recognition in our markets of interest and our business may be adversely affected.

Our registered or unregistered trademarks or trade names may be challenged, infringed, circumvented, declared generic or determined to be infringing on other marks. We may not be able to protect our rights in these trademarks and trade names, which we need in order to build name recognition with potential partners or customers in our markets of interest. In addition, third parties have used trademarks similar and identical to our trademarks in foreign jurisdictions, and have filed or may in the future file for registration of such trademarks. If they succeed in registering or developing common law rights in such trademarks, and if we are not successful in challenging such third-party rights, we may not be able to use these trademarks to market our products in those countries. In any case, if we are unable to establish name recognition based on our trademarks and trade names, then we may not be able to compete effectively and our business may be adversely affected.

If we cannot show access and copying then our copyrights may not provide protection for our software and our business may be adversely affected.

Copyrights protect works of authorship such as software, but proving infringement requires a showing of access to the work and copying of the work. Because software is not readily available or accessible, it may be difficult to determine and prove that a third party had access to our software and/or that they copied our software. Because our software may be accessible by obtaining or accessing our product offerings and technology, third parties may be able to download or reproduce our software and reverse engineer our software programs. Software programs can be rewritten in ways that significantly modify it from the original program, which may make it difficult to prove the copying prong of a copyright infringement showing. If we are unable to establish the two prongs of a copyright infringement analysis, then our copyrights may provide limited or no protection for our software. Copyright infringement suits are expensive and any damages we seek may be inadequate to compensate us for the costs of litigation and for damage to our business resulting from the copyright infringement.

We may not be able to adequately protect our intellectual property rights throughout the world.

Filing, prosecuting and defending patents on our products in all countries throughout the world would be prohibitively expensive. The requirements for patentability may differ in certain countries, particularly developing countries, and the breadth of patent claims allowed can be inconsistent. In addition, the laws of some foreign countries may not protect our intellectual property rights to the same extent as laws in the United States. Consequently, we may not be able to prevent third parties from practicing our inventions in all countries outside the United States. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products and, further, may export otherwise infringing products to territories in which we have patent protection that may not be sufficient to terminate infringing activities.

We do not have patent rights in certain foreign countries in which a market may exist. Moreover, in foreign jurisdictions where we do have patent rights, proceedings to enforce such rights could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly, and our patent applications at risk of not issuing. Additionally, such proceedings could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate and the damages or other remedies awarded, if any, may not be commercially meaningful. Thus, we may not be able to stop a competitor from marketing and selling in foreign countries products and services that are the same as or similar to our products and services, and our competitive position in the international market would be harmed.

We may not identify relevant third-party patents or may incorrectly interpret the relevance, scope or expiration of a third-party patent which might adversely affect our ability to develop and market our products.

We cannot guarantee that any of our or our licensors' patent searches or analyses, including the identification of relevant patents, the scope of patent claims or the expiration of relevant patents, are complete or thorough, nor can we be certain that we have identified each and every third-party patent and pending application in the United States and abroad that is relevant to or necessary for the commercialization of our products in any jurisdiction. For example, U.S. patent applications filed before November 29, 2000 and certain U.S. patent applications filed after that date that will not be filed outside the United States remain confidential until patents issue. Patent applications in the United States and elsewhere are published approximately 18 months after the earliest filing for which priority is claimed, with such earliest filing date being commonly referred to as the priority date. Therefore, patent applications covering our products could have been filed by others without our knowledge. Additionally, pending patent applications that have been published can, subject to certain limitations, be later amended in a manner that could cover our product candidates or the use of our products. The scope of a patent claim is determined by an interpretation of the law, the written disclosure in a patent and the patent's prosecution history. Our interpretation of the relevance or the scope of a patent or a pending application may be incorrect, which may negatively impact our ability to market our products. We may incorrectly determine that our products are not covered by a third-party patent or may incorrectly predict whether a third party's pending patent application will issue with claims of relevant scope. Our determination of the expiration date of any patent in the United States or abroad that we consider relevant may be incorrect, which may negatively impact our ability to develop and market our products and services. Our failure to identify and correctly interpret relevant patents may negatively impact our ability to develop and market our products and services.

If we fail to identify and correctly interpret relevant patents, we may be subject to infringement claims. We cannot guarantee that we will be able to successfully settle or otherwise resolve such infringement claims. If we fail in any such dispute, in addition to being forced to pay damages, we may be temporarily or permanently prohibited from commercializing any of our products that are held to be infringing. We might, if possible, also be forced to redesign products or services so that we no longer infringe the third-party intellectual property rights. Any of these events, even if we were ultimately to prevail, could require us to divert substantial financial and management resources that we would otherwise be able to devote to our business.

Patent terms may be inadequate to protect our competitive position on our products for an adequate amount of time.

Patents have a limited lifespan, and the protection patents afford is limited. In the United States, if all maintenance fees are timely paid, the natural expiration of a patent is generally 20 years from its earliest U.S. non-provisional filing date. Even if patents covering our products are obtained, once the patent life has expired for patents covering a product, we may be open to competition from competitive products and services. As a result, our patent portfolio may not provide us with sufficient rights to exclude others from commercializing product candidates similar or identical to ours.

Intellectual property rights do not necessarily address all potential threats to our business.

Once granted, patents may remain open to invalidity challenges including opposition, interference, re-examination, post-grant review, inter partes review, nullification or derivation action in court or before patent offices or similar proceedings for a given period after allowance or grant, during which time third parties can raise objections against such grant. In the course of such proceedings, which may continue for a protracted period of time, the patent owner may be compelled to limit the scope of the allowed or granted claims thus attacked, or may lose the allowed or granted claims altogether.

In addition, the degree of future protection afforded by our intellectual property rights is uncertain because even granted intellectual property rights have limitations, and may not adequately protect our business, provide a barrier to entry against our competitors or potential competitors or permit us to maintain our competitive advantage. Moreover, if a third party has intellectual property rights that cover the practice of our technology, we may not be able to fully exercise or extract value from our intellectual property rights. The following examples are illustrative:

- others may be able to develop and/or practice technology that is similar to our technology or aspects of our technology, but that are not covered by the claims of the patents that we own or control, assuming such patents have issued or do issue;
- we or our licensors or any future strategic partners might not have been the first to conceive or reduce to practice the inventions covered by the issued patents or pending patent applications that we own or have exclusively licensed;
- we or our licensors or any future strategic partners might not have been the first to file patent applications covering certain of our inventions;
- others may independently develop similar or alternative technologies or duplicate any of our technologies without infringing our intellectual property rights;
- it is possible that our pending patent applications will not lead to issued patents;
- issued patents that we own or have exclusively licensed may not provide us with any competitive advantage, or may be held invalid or unenforceable, as a result of legal challenges by our competitors;
- our competitors might conduct research and development activities in countries where we do not have patent rights and then use the information learned from such activities to develop competitive products for sale in our major commercial markets;
- third parties performing manufacturing or testing for us using our products or technologies could use the intellectual property of others without obtaining a proper license;
- parties may assert an ownership interest in our intellectual property and, if successful, such disputes may preclude us from exercising exclusive rights over that intellectual property;
- we may not develop or in-license additional proprietary technologies that are patentable;
- we may not be able to obtain and maintain necessary licenses on commercially reasonable terms, or at all; and
- the patents of others may have an adverse effect on our business.

Should any of these events occur, they could significantly harm our business and results of operations.

We may be subject to claims that our employees, consultants or independent contractors have wrongfully used or disclosed confidential information of their former employers or other third parties.

We do and may employ individuals who were previously employed at universities or other pharmaceutical or medical device companies, including our licensors, competitors or potential competitors. Although we try to ensure that our employees, consultants and independent contractors do not use the proprietary information or know-how of others in their work for us, and we are not currently subject to any claims that our employees, consultants or independent contractors have wrongfully used or disclosed confidential information of third parties, we may in the future be subject to such claims. Litigation may be necessary to defend against these claims. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. Such intellectual property rights could be awarded to a third party, and we could be required to obtain a

license from such third party to commercialize our technology or products. Such a license may not be available on commercially reasonable terms or at all. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees, and could result in customers seeking other sources for the technology, or in ceasing from doing business with us.

Our intellectual property agreements with third parties may be subject to disagreements over contract interpretation, which could narrow the scope of our rights to the relevant intellectual property or technology.

Certain provisions in our intellectual property agreements may be susceptible to multiple interpretations. The resolution of any contract interpretation disagreement that may arise could affect the scope of our rights to the relevant intellectual property or technology, or affect financial or other obligations under the relevant agreement, either of which could have a material adverse effect on our business, financial condition, results of operations and prospects.

In addition, while it is our policy to require our employees and contractors who may be involved in the conception or development of intellectual property to execute agreements assigning such intellectual property to us, we may be unsuccessful in executing such an agreement with each party who in fact conceives or develops intellectual property that we regard as our own. Our assignment agreements may not be self-executing or may be breached, and we may be forced to bring claims against third parties, or defend claims they may bring against us, to determine the ownership of what we regard as our intellectual property.

We may not be successful in obtaining necessary intellectual property rights to future products through acquisitions and in-licenses.

Although we intend to develop products and technology through our own internal research, we may also seek to acquire or in-license technologies to grow our product offerings and technology portfolio. However, we may be unable to acquire or in-license intellectual property rights relating to, or necessary for, any such products or technology from third parties on commercially reasonable terms or at all. In that event, we may be unable to develop or commercialize such products or technology. We may also be unable to identify products or technology that we believe are an appropriate strategic fit for our company and protect intellectual property relating to, or necessary for, such products and technology.

The in-licensing and acquisition of third-party intellectual property rights for product candidates is a competitive area, and a number of more established companies are also pursuing strategies to in-license or acquire third-party intellectual property rights for products that we may consider attractive or necessary. These established companies may have a competitive advantage over us due to their size, cash resources and greater clinical development and commercialization capabilities. Furthermore, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. If we are unable to successfully obtain rights to additional technologies or products, our business, financial condition, results of operations and prospects for growth could suffer.

In addition, we expect that competition for the in-licensing or acquisition of third-party intellectual property rights for products and technologies that are attractive to us may increase in the future, which may mean fewer suitable opportunities for us as well as higher acquisition or licensing costs. We may be unable to in-license or acquire the third-party intellectual property rights for products or technology on terms that would allow us to make an appropriate return on our investment.

Risks Related to Regulation of our Industry

Our future success depends on our ability to develop, receive regulatory clearance or approval for, and introduce new products or product enhancements that will be accepted by the market in a timely manner.

It is important to our business that we build a pipeline of product offerings for treatment of our target indications. As such, our success will depend in part on our ability to develop and introduce new products. However, we may not be able to successfully develop and obtain regulatory clearance or approval for product enhancements, or new products, or these products may not be accepted by physicians or the payors who financially support many of the procedures performed with our products.

The success of any new product offering or enhancement to an existing product will depend on a number of factors, including our ability to:

- identify and anticipate physician and patient needs properly;
- develop and introduce new products or product enhancements in a timely manner;
- avoid infringing upon the intellectual property rights of third parties;
- demonstrate, if required, the safety and efficacy of new products with data from preclinical and clinical studies;
- obtain the necessary regulatory clearances or approvals for new products or product enhancements;
- comply fully with FDA and foreign regulations on marketing of new devices or modified products;
- provide adequate training to potential users of our products; and
- receive adequate coverage and reimbursement for procedures performed with our products.

If we do not develop new products or product enhancements in time to meet market demand or if there is insufficient demand for these products or enhancements, or if our competitors introduce new products with functionalities that are superior to ours, our results of operations will suffer.

gammaCore is subject to extensive governmental regulation, and our failure to comply with applicable requirements could cause our business to suffer.

The medical device industry is regulated extensively by governmental authorities, principally the FDA and corresponding state and foreign regulatory agencies and authorities, such as the EU legislative bodies and the EEA Member States, Competent Authorities and notified bodies. The FDA and other U.S., EEA and foreign governmental agencies and authorities regulate and oversee, among other things, with respect to medical devices:

- design, development and manufacturing;
- testing, labeling, content and language of instructions for use and storage;
- clinical trials;
- product safety;
- risk assessment and management;
- marketing, sales and distribution;
- pre-market regulatory clearance and approval;
- conformity assessment procedures;

- record-keeping procedures;
- advertising and promotion;
- recalls and other field safety corrective actions;
- post-market surveillance, including reporting of deaths or serious injuries and malfunctions that, if they were to recur, could lead to death or serious injury;
- post-market studies; and
- product import and export.

The laws and regulations to which we are subject are complex and have tended to become more stringent over time. Legislative or regulatory changes could result in restrictions on our ability to carry on or expand our operations, higher than anticipated costs or lower than anticipated sales.

Our failure to comply with U.S. federal and state regulations or EEA or other foreign regulations applicable in the countries where we operate could lead to the issuance of warning letters or untitled letters, the imposition of injunctions, suspensions or loss of regulatory clearance or approvals, product recalls, termination of distribution, product seizures or civil penalties. In the most extreme cases, criminal sanctions or closure of our manufacturing facilities are possible. If any of these risks materialize, our business would be adversely affected.

gammaCore is also subject to extensive governmental regulation in foreign jurisdictions, such as Europe, and our failure to comply with applicable requirements could cause our business to suffer.

In the EEA, gammaCore must comply with the Essential Requirements laid down in Annex I to Directive 93/42/EEC on the approximation of the laws of the Member States relating to medical devices or the EU Medical Devices Directive. Compliance with these requirements is a prerequisite to be able to affix the CE mark to gammaCore, without which they cannot be marketed or sold in the EEA. To demonstrate compliance with the Essential Requirements and obtain the right to affix the CE Mark medical devices manufacturers must undergo a conformity assessment procedure, which varies according to the type of medical device and its classification. Except for low risk medical devices (Class I with no measuring function and which are not sterile), where the manufacturer can issue an EC Declaration of Conformity based on a self-assessment of the conformity of its products with the Essential Requirements, a conformity assessment procedure requires the intervention of a Notified Body, which is an organization designated by a competent authority of an EEA country to conduct conformity assessments. Depending on the relevant conformity assessment procedure, the Notified Body would audit and examine the Technical File and the quality system for the manufacture, design and final inspection of the medical devices. The Notified Body issues a CE Certificate of Conformity following successful completion of a conformity assessment procedure conducted in relation to the medical device and its manufacturer and their conformity with the Essential Requirements. This Certificate entitles the manufacturer to affix the CE mark to its medical devices after having prepared and signed a related EC Declaration of Conformity.

As a general rule, demonstration of conformity of medical devices and their manufacturers with the Essential Requirements must be based, among other things, on the evaluation of clinical data supporting the safety and performance of the products during normal conditions of use. Specifically, a manufacturer must demonstrate that the device achieves its intended performance during normal conditions of use and that the known and foreseeable risks, and any adverse events, are minimized and acceptable when weighed against the benefits of its intended performance, and that any claims made about the performance and safety of the device, such as product labeling and instructions for use, are supported by suitable evidence. This assessment must be based on clinical data, which can be obtained from (1) clinical studies conducted on the devices being assessed, (2) scientific literature from similar devices whose equivalence with the assessed device can be demonstrated or (3) both clinical studies and scientific literature. With respect to Class III devices, the manufacturer must

conduct clinical studies to obtain the required clinical data, unless reliance on existing clinical data from equivalent devices can be justified. The conduct of clinical studies in the EEA is governed by detailed regulatory obligations. These may include the requirement of prior authorization by the competent authorities of the country in which the study takes place and the requirement to obtain a positive opinion from a competent Ethics Committee. This process can be expensive and time-consuming.

Moreover, on May 25, 2017 the new Medical Devices Regulation (2017/745 or MDR) entered into force. Following its entry into application on May 26, 2020, the Regulations will introduce substantial changes to the obligations with which medical device manufacturers must comply in the EU. High risk medical devices will be subject to additional scrutiny during the conformity assessment procedure. Specifically, the EU Medical Devices Regulation repeals and replaces the EU Medical Devices Directive. Unlike directives, which must be implemented into the national laws of the EEA Member States, the regulations would be directly applicable, i.e., without the need for adoption of EEA Member State laws implementing them, in all EEA Member States and are intended to eliminate current differences in the regulation of medical devices among EEA Member States. The EU Medical Devices Regulation, among other things, is intended to establish a uniform, transparent, predictable and sustainable regulatory framework across the EEA for medical devices and ensure a high level of safety and health while supporting innovation. The EU Medical Devices Regulation will however only become applicable three years after publication (in May 2020). Once applicable, the new regulations will among other things:

- strengthen the rules on placing devices on the market and reinforce surveillance once they are available;
- establish explicit provisions on manufacturers' responsibilities for the follow-up of the quality, performance and safety of devices placed on the market;
- improve the traceability of medical devices throughout the supply chain to the end-user or patient through a unique identification number;
- set up a central database to provide patients, healthcare professionals and the public with comprehensive information on products available in the EU; and
- strengthened rules for the assessment of certain high-risk devices which may have to undergo an additional check by experts before they are placed on the market.

Once applicable, the Medical Devices Regulation may impose increased compliance obligations for us to access the EU market.

In order to continue to sell gammaCore in Europe, we must maintain our CE Mark and continue to comply with certain EU Directives and, in the future with the EU Medical Devices Regulation. Our failure to continue to comply with applicable foreign regulatory requirements, including those administered by authorities of the EEA countries, could result in enforcement actions against us, including refusal, suspension or withdrawal of our CE Certificates of Conformity by our Notified Body (the British Standards Institution, or BSI), which could impair our ability to market products in the EEA in the future.

If we fail to maintain regulatory approvals and clearances, or are unable to obtain, or experience significant delays in obtaining, FDA clearances or approvals for our future products or product enhancements, our ability to commercially distribute and market these products could suffer.

Our products are subject to rigorous regulation by the FDA and numerous other federal, state and foreign governmental authorities. The process of obtaining regulatory clearances or approvals to market a medical device can be costly and time consuming, and we may not be able to obtain these clearances or approvals on a timely basis, if at all. In particular, the FDA permits commercial distribution of a new medical device only after the device has received clearance under Section 510(k) of the Federal Food,

Drug and Cosmetic Act, or is the subject of an approved premarket approval application, or PMA unless the device is specifically exempt from those requirements. The FDA will clear marketing of a lower risk medical device through the 510(k) process if the manufacturer demonstrates that the new product is substantially equivalent to a legally marketed "predicate" device. High risk devices deemed to pose the greatest risk, such as life-sustaining, life-supporting, or implantable devices, or devices not deemed substantially equivalent to a legally marketed "predicate" device, require the approval of a PMA. The PMA process is more costly, lengthy and uncertain than the 510(k) clearance process. A PMA application must be supported by extensive data, including, but not limited to, technical, preclinical, clinical trial, manufacturing and labeling data, to demonstrate to the FDA's satisfaction the safety and efficacy of the device for its intended use. Our currently commercialized gammaCore products have been cleared through the 510(k) process. However, we may need to submit a PMA to expand our labeling claims to include certain indications.

Our failure to comply with U.S. federal, state and foreign governmental regulations could lead to the issuance of warning letters or untitled letters, the imposition of injunctions, suspensions or loss of regulatory clearance or approvals, product recalls, termination of distribution, product seizures or civil penalties. In the most extreme cases, criminal sanctions or closure of our manufacturing facility are possible.

Foreign governmental authorities that regulate the manufacture and sale of medical devices have become increasingly stringent and, to the extent we market and sell our products internationally, we may be subject to rigorous international regulation in the future. In these circumstances, we would rely significantly on our foreign independent distributors to comply with the varying regulations, and any failures on their part could result in restrictions on the sale of our products in foreign countries.

Modifications to our products may require new regulatory clearances or approvals or may require us to recall or cease marketing our products until clearances or approvals are obtained.

Modifications to or expansion of our indications for use of our gammaCore products may require new regulatory approvals or clearances, including 510(k) clearances or PMA approvals, or require us to recall or cease marketing the modified devices until these clearances or approvals are obtained. The FDA requires device manufacturers to initially make and document a determination of whether or not a modification requires a new approval, supplement or clearance. A manufacturer may determine that a modification does not significantly affect safety or efficacy and does not represent a major change in its intended use, so that no new 510(k) clearance is not necessary. However, the FDA can review a manufacturer's decision and may disagree. The FDA may also on its own initiative determine that a new clearance or approval is required. We may make modifications to our products in the future that we believe do not or will not require additional clearances or approvals. If the FDA disagrees and requires new clearances or approvals for the modifications, we may be required to recall and to stop marketing our products as modified, which could require us to redesign our products and harm our operating results. In these circumstances, we may be subject to significant enforcement actions.

If a manufacturer determines that a modification to an FDA-cleared device could significantly affect its safety or efficacy, or would constitute a major change in its intended use, then the manufacturer must file for a new 510(k) clearance or possibly a PMA application. Where we determine that modifications to our products require a new 510(k) clearance or PMA application, we may not be able to obtain those additional clearances or approvals for the modifications or additional indications in a timely manner, or at all. For those products sold in the EU, we must notify our E.U. Notified Body, if significant changes are made to the products or if there are substantial changes to our quality assurance systems affecting those products. Obtaining clearances and approvals can be a time consuming process, and delays in obtaining required future clearances or approvals would adversely affect our ability to introduce new or enhanced products in a timely manner, which in turn would harm our future growth.

There is no guarantee that the FDA will grant 510(k) clearance or PMA approval of our future products and failure to obtain necessary clearances or approvals for our future products would adversely affect our ability to grow our business.

Some of our new products or expanded indications for use will require FDA clearance of a 510(k), or may require FDA approval of a PMA. The FDA may not approve or clear these products for the indications that are necessary or desirable for successful commercialization. Indeed, the FDA may refuse our requests for 510(k) clearance or premarket approval of new products, new intended uses or modifications to existing products. Failure to receive clearance or approval for our new products would have an adverse effect on our ability to expand our business.

Even if our products are cleared or approved by regulatory authorities, if we or our suppliers fail to comply with ongoing FDA or other foreign regulatory authority requirements, or if we experience unanticipated problems with our products, these products could be subject to restrictions or withdrawal from the market.

Any product for which we obtain clearance or approval, and the manufacturing processes, reporting requirements, post-approval clinical data and promotional activities for such product, will be subject to continued regulatory review, oversight and periodic inspections by the FDA and other domestic and foreign regulatory bodies. In particular, we and our suppliers are required to comply with FDA's Quality System Regulation, or QSR, and International Standards Organization, or ISO, regulations for the manufacture of our products and other regulations which cover the methods and documentation of the design, testing, production, control, quality assurance, labeling, packaging, storage and shipping of any product for which we obtain clearance or approval. Regulatory bodies, such as the FDA, enforce the QSR and other regulations through periodic inspections. The failure by us or one of our suppliers to comply with applicable statutes and regulations administered by the FDA and other regulatory bodies, or the failure to timely and adequately respond to any adverse inspectional observations or product safety issues, could result in, among other things, any of the following enforcement actions:

- untitled letters, warning letters, fines, injunctions, consent decrees and civil penalties;
- unanticipated expenditures to address or defend such actions
- customer notifications for repair, replacement, refunds;
- recall, detention or seizure of our products;
- operating restrictions or partial suspension or total shutdown of production;
- refusing or delaying our requests for 510(k) clearance or PMA approval of new products or modified products;
- operating restrictions;
- withdrawing 510(k) clearances on PMA approvals that have already been granted;
- refusal to grant export approval for our products; or
- criminal prosecution.

If any of these actions were to occur it would harm our reputation and cause our product sales and profitability to suffer and may prevent us from generating revenue. Furthermore, our key component suppliers may not currently be or may not continue to be in compliance with all applicable regulatory requirements which could result in our failure to produce our products on a timely basis and in the required quantities, if at all.

Even if regulatory clearance or approval of a product is granted, such clearance or approval may be subject to limitations on the intended uses for which the product may be marketed and reduce our

potential to successfully commercialize the product and generate revenue from the product. If the FDA determines that our promotional materials, labeling, training or other marketing or educational activities constitute promotion of an unapproved use, it could request that we cease or modify our training or promotional materials or subject us to regulatory enforcement actions. It is also possible that other federal, state or foreign enforcement authorities might take action if they consider our training or other promotional materials to constitute promotion of an unapproved use, which could result in significant fines or penalties under other statutory authorities, such as laws prohibiting false claims for reimbursement.

In addition, we may be required to conduct costly post-market testing and surveillance to monitor the safety or effectiveness of our products, and we must comply with medical device reporting, or MDR, requirements, including the reporting of adverse events and malfunctions related to our products. Later discovery of previously unknown problems with our products, including unanticipated adverse events or adverse events of unanticipated severity or frequency, manufacturing problems, or failure to comply with regulatory requirements such as QSR may result in changes to labeling, restrictions on such products or manufacturing processes, withdrawal of the products from the market, voluntary or mandatory recalls, a requirement to repair, replace or refund the cost of any medical device we manufacture or distribute, fines, suspension of regulatory clearances or approvals, product seizures, injunctions or the imposition of civil or criminal penalties which would adversely affect our business, operating results and prospects.

The misuse or off-label use of our gammaCore therapy may harm our image in the marketplace, result in injuries that lead to product liability suits, which could be costly to our business, or result in costly investigations and sanctions from the FDA and other regulatory bodies if we are deemed to have engaged in off-label promotion.

gammaCore has been CE Marked in the EEA and cleared by the FDA for the acute treatment of eCH and the acute treatment of migraine headache in the United States. We may only promote or market our gammaCore therapy for its specifically approved indications as described on the approved label. We train our marketing and sales force against promoting our products for uses outside of the approved indications for use, known as “off-label uses.” We cannot, however, prevent a physician from prescribing our product off-label, when in the physician’s independent professional medical judgment he or she deems appropriate. There may be increased risk of injury to patients if patients attempt to use our product off-label. Furthermore, the use of our product for indications other than those cleared or approved by the applicable regulatory body may not effectively treat such conditions, which could harm our reputation in the marketplace among physicians and patients.

Patients may also misuse our product or use improper techniques if they are not adequately trained, potentially leading to injury and an increased risk of product liability. If our product is misused or used with improper technique, we may become subject to costly litigation by our customers or their patients. Product liability claims could divert management’s attention from our core business, be expensive to defend, and result in sizable damage awards against us that may not be covered by insurance. In addition, if our products are approved for sale in the United States and the FDA determines that our promotional materials or training constitute promotion of an off-label use, it could request that we modify our training or promotional materials or subject us to regulatory or enforcement actions, including the issuance of an untitled letter, a warning letter, injunction, seizure, civil fine or criminal penalties. It is also possible that other federal, state or foreign enforcement authorities might take action if they consider our business activities to constitute promotion of an off-label use, which could result in significant penalties, including, but not limited to, criminal, civil and/or administrative penalties, damages, fines, disgorgement, exclusion from participation in government healthcare programs, and the curtailment of our operations. Further, our competitors could bring civil actions under relevant unfair competition and advertising laws should they believe our business activities and product promotional activities are improper. Any of these events could significantly harm our business and results of operations and cause our stock price to decline.

Further, the advertising and promotion of our products is subject to EEA Member States' national laws implementing Directive 93/42/EEC on the approximation of the laws of the Member States relating to medical devices, Directive 2006/114/EC concerning misleading and comparative advertising, and Directive 2005/29/EC on unfair commercial practices, as well as other EEA Member State legislation governing the advertising and promotion of medical devices. EEA Member State legislation may also restrict or impose limitations on our ability to advertise our products directly to the general public. In addition, voluntary EU and national Codes of Conduct provide guidelines on the advertising and promotion of our products to the general public and may impose limitations on our promotional activities with healthcare professionals.

gammaCore may in the future be subject to notifications, recalls, or voluntary market withdrawals that could harm our reputation, business and financial results.

The FDA, EEA Competent Authorities and similar foreign governmental authorities have the authority to request or require the recall of commercialized products in the event of regulatory noncompliance or material deficiencies or defects in design or manufacture that could affect patient safety. In the case of the FDA, the authority to require a recall must be based on an FDA finding that there is a reasonable probability that the device would cause serious injury or death. In addition, foreign governmental bodies have the authority to require the recall of our products in the event of material deficiencies or defects in design or manufacture. Manufacturers may, under their own initiative, recall a product if any material deficiency in a device is found. A government-mandated or voluntary recall by us or one of our distributors could occur as a result of component failures, manufacturing errors, design or labeling defects or other deficiencies and issues. Recalls of any of our products would divert managerial and financial resources and have an adverse effect on our financial condition and results of operations. We must notify the FDA of all device recalls and corrections, and certain classifications of recalls and corrections require more extensive reporting within 10 working days after the recall is initiated. Companies are required to maintain certain records of recalls and corrections, even if they are not subject to more extensive reporting requirements. We may initiate voluntary market withdrawals or other market actions involving our gammaCore products in the future that we determine do not require notification of the FDA. If the FDA disagrees with our determinations, they could require us to report those actions as recalls. A future recall announcement could harm our reputation with customers and negatively affect our sales. In addition, the FDA could take enforcement action for failing to report the recalls or corrections when they were conducted. Consumer class action claims and/or product liability claims are a greater risk following a product recall or market withdrawal.

We are required to report certain malfunctions, deaths, and serious injuries associated with our products, which can result in voluntary corrective actions or agency enforcement actions.

Under the FDA MDR regulations, medical device manufacturers are required to submit information to the FDA when they receive a report or become aware that a device has or may have caused or contributed to a death or serious injury or has or may have a malfunction that would likely cause or contribute to death or serious injury if the malfunction were to recur. All manufacturers placing medical devices on the market in the EEA are legally bound to report incidents involving devices they produce or sell to the regulatory agency, or competent authority, in whose jurisdiction the incident occurred. Under the Directive 93/42/EEC on the approximation of the laws of the Member States relating to medical devices, an incident is defined as any malfunction or deterioration in the characteristics and/or performance of a device, as well as any inadequacy in the labeling or the instructions for use which, directly or indirectly, might lead to or might have led to the death of a patient, or user or of other persons or to a serious deterioration in their state of health.

Malfunction of our products could result in future voluntary corrective actions, such as recalls, including corrections, or customer notifications, or agency action, such as inspection or enforcement actions. If malfunctions do occur, we may be unable to correct the malfunctions adequately or prevent further

malfunctions, in which case we may need to cease manufacture and distribution of the affected products, initiate voluntary recalls, and redesign the products. Regulatory authorities may also take actions against us, such as ordering recalls, imposing fines, or seizing the affected products. Any corrective action, whether voluntary or involuntary, will require the dedication of our time and capital, distract management from operating our business, and may harm our reputation and financial results.

Legislative or regulatory reforms may make it more difficult and costly for us to obtain regulatory approval of our product candidates and to manufacture, market and distribute our products after approval is obtained.

From time to time, legislation is drafted and introduced in Congress that could significantly change the statutory provisions governing the regulatory approval, manufacture and marketing of regulated products or the reimbursement thereof. In addition, FDA regulations and guidance are often revised or reinterpreted by the FDA in ways that may significantly affect our business and our products. Any new regulations or revisions or reinterpretations of existing regulations may impose additional costs or lengthen review times of future products. It is impossible to predict whether legislative changes will be enacted or FDA regulations, guidance or interpretations changed, and what the impact of such changes, if any, may be.

Moreover, the policies of the Trump Administration and their impact on the regulation of our products in the United States remain uncertain. The outcome of the 2016 election and the forthcoming 2018 mid-term elections could result in significant legislative and regulatory reforms impacting the FDA's regulation of our products. Any change in the laws or regulations that govern the clearance and approval processes relating to our current and future products could make it more difficult and costly to obtain clearance or approval for new products, or to produce, market and distribute existing products. Significant delays in receiving clearance or approval, or the failure to receive clearance or approval for our new products would have an adverse effect on our ability to expand our business.

In the EU, on May 25, 2017 the new Medical Devices Regulation (2017/745 or MDR) was adopted. Following its entry into application on May 26, 2020, the Regulations will introduce substantial changes to the obligations with which medical device manufacturers must comply in the EU. High risk medical devices will be subject to additional scrutiny during the conformity assessment procedure.

We are subject to federal, state and foreign healthcare laws and regulations, and a finding of failure to comply with such laws and regulations could have a material adverse effect on our business.

We are subject to healthcare fraud and abuse regulation and enforcement by federal, state and foreign governments, which could significantly impact our business. In the United States, the laws that may affect our ability to operate include, but are not limited to:

- the federal Anti-Kickback Statute, which prohibits, among other things, persons and entities from knowingly and willfully soliciting, receiving, offering, or paying remuneration, directly or indirectly, in cash or in kind, in exchange for or to induce either the referral of an individual for, or the purchase, lease, order or recommendation of, any good, facility, item or service for which payment may be made, in whole or in part, under federal healthcare programs such as Medicare and Medicaid. A person or entity does not need to have actual knowledge of this statute or specific intent to violate it in order to have committed a violation. Moreover, the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the federal civil False Claims Act. Violations of the federal Anti-Kickback Statute may result in civil monetary penalties up to $74,792 (and adjusted for inflation) for each violation, plus up to three times the remuneration involved. Civil penalties for such conduct can further be assessed under the federal False Claims Act. Violations can

also result in criminal penalties, including criminal fines of up to $100,000 and imprisonment of up to 10 years. Similarly, violations can result in exclusion from participation in government healthcare programs, including Medicare and Medicaid;

- in the event that third-party payors require us to be a durable medical equipment, or DME, supplier or we sell our products directly to providers who are DME suppliers that submit claims to such payors, we may be subject to the federal Stark physician self-referral law, which prohibits a physician from making a referral for certain designated health services covered by the Medicare program, including DME, if the physician or an immediate family member has a financial relationship with the entity providing the designated health services, and prohibits that entity from billing or presenting a claim for the designated health services furnished pursuant to the prohibited referral, unless an exception applies. Sanctions for violating the Stark Law include denial of payment, civil monetary penalties of up to $24,253 (and adjusted for inflation) per claim submitted and exclusion from the federal health care programs. Failure to refund amounts received as a result of a prohibited referral on a timely basis may constitute a false or fraudulent claim and may result in civil penalties and additional penalties under the FCA. The statute also provides for a penalty of up to $161,692 (and adjusted for inflation) for a circumvention scheme. Various states also have corollary laws to the Stark Law, including laws that require physicians to disclose any financial interest they may have with a healthcare provider to their patients when referring patients to that provider. Both the scope and exceptions for such laws vary from state to state.
- federal civil and criminal false claims laws and civil monetary penalty laws, including civil whistleblower or qui tam actions, that prohibit, among other things, knowingly presenting, or causing to be presented, claims for payment of federal funds that are false or fraudulent, knowingly making a false statement material to an obligation to pay or transmit money or property to the federal government or knowingly concealing or knowingly and improperly avoiding or decreasing an obligation to pay or transmit money or property to the federal government. These laws can apply to manufacturers who provide information on coverage, coding, and reimbursement of their products to persons who bill third-party payors. Private individuals can bring False Claims Act “qui tam” actions, on behalf of the government and such individuals, commonly known as “whistleblowers,” may share in amounts paid by the entity to the government in fines or settlement. When an entity is determined to have violated the federal civil False Claims Act, the government may impose civil fines and penalties ranging from $11,181 to $22,363 for each false claim, plus treble damages, and exclude the entity from participation in Medicare, Medicaid and other federal healthcare programs;
- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which created federal criminal laws that prohibit executing a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters. A person or entity does not need to have actual knowledge of these statutes or specific intent to violate them;
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009, or HITECH, and their respective implementing regulations, which impose requirements on certain covered healthcare providers, health plans and healthcare clearinghouses as well as their business associates that perform services for them that involve individually identifiable health information, relating to the privacy, security and transmission of individually identifiable health information without appropriate authorization, including mandatory contractual terms as well as directly applicable privacy and security standards and requirements. Failure to comply with the HIPAA privacy and security standards can result in civil monetary penalties up to $55,910 per violation, not to exceed $1.68 million per calendar year for non-compliance of an identical provision, and, in

certain circumstances, criminal penalties with fines up to $250,000 per violation and/or imprisonment. State attorneys general can also bring a civil action to enjoin a HIPAA violation or to obtain statutory damages on behalf of residents of his or her state;

- the federal physician sunshine requirements under the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, or collectively, the ACA, which require certain applicable manufacturers of drugs, devices, biologics, and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program, or CHIP, to report annually to the U.S. Department of Health and Human Services Centers for Medicare and Medicaid Services, or CMS, information related to payments and other transfers of value to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, and ownership and investment interests held by physicians and their immediate family members. Applicable manufacturers are required to submit annual reports to CMS. Failure to submit required information may result in civil monetary penalties of between $1,105 and $11,052 per failure (up to an aggregate of $165,786 per year), and between $11,052 and $110,524 per "knowing" failure (up to an aggregate of $1.105 million per year), for all payments, transfers of value or ownership or investment interests that are not timely, accurately, and completely reported in an annual submission, and may result in liability under other federal laws or regulations; and
- state and foreign law equivalents of each of the above federal laws, such as state anti-kickback and false claims laws that may apply to items or services reimbursed by any third-party payor, including commercial insurers; state laws that require device companies to comply with the industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government, or otherwise restrict payments that may be made to healthcare providers and other potential referral sources; state laws that require device manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures; and state and foreign laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA.

These laws and regulations, among other things, constrain our business, marketing and other promotional activities by limiting the kinds of financial arrangements we may have with physicians or other entities or individuals in a position to prescribe or recommend our products. We have entered into consulting agreements and other arrangements with physicians, including some who have ownership interests in us and/or prescribe our products to patients. Compensation under some of these arrangements includes the provision of profits interests in our company. We could be adversely affected if regulatory agencies determine our financial relationships with such physicians to be in violation of applicable laws. Due to the breadth of these laws, the narrowness of statutory exceptions and regulatory safe harbors available, and the range of interpretations to which they are subject, it is possible that some of our current or future practices might be challenged under one or more of these laws.

The scope and enforcement of each of these laws is uncertain and subject to rapid change in the current environment of healthcare reform, especially in light of the lack of applicable precedent and regulations. Federal and state enforcement bodies have recently increased their scrutiny of interactions between healthcare companies and healthcare providers, which has led to a number of investigations, prosecutions, convictions and settlements in the healthcare industry. Responding to investigations can be time-and resource-consuming and can divert management's attention from the business. Additionally, as a result of these investigations, healthcare providers and entities may have to agree to additional onerous compliance and reporting requirements as part of a consent decree or corporate integrity agreement. Any such investigation or settlement could increase our costs or otherwise have an adverse effect on our business.

If our operations are challenged or found to be in violation of any of the laws described above or any other governmental regulations that apply to us now or in the future, we may be subject to penalties, including civil and criminal penalties, damages, fines, disgorgement, exclusion from governmental health care programs, and the curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our financial results.

Healthcare legislative reform measures may have a material adverse effect on us.

In the United States, there have been and continue to be a number of legislative initiatives to contain healthcare costs. ACA, which was passed in 2010, substantially changed the way health care is financed by both governmental and private insurers and significantly impacts the U.S. healthcare industry. The ACA included, among other things, a deductible 2.3% excise tax on any entity that manufactures or imports medical devices offered for sale in the United States, with limited exceptions, effective January 1, 2013. Through a series of legislative amendments, the tax was suspended for 2016 through 2019. Absent further legislative action, the device excise tax will be reinstated on medical device sales starting January 1, 2020. If reinstated, this excise tax would result in a significant increase in the tax burden on our industry, and if the efforts we would undertake to offset the excise tax are unsuccessful as we begin to sell the product in the United States, the potential increased tax burden could have an adverse effect on our results of operations and cash flows. Other elements of the ACA, including comparative effectiveness research and payment system reforms, including shared savings pilots and other provisions, may significantly affect the payment for, and the availability of, healthcare services and result in fundamental changes to federal healthcare reimbursement programs, any of which may materially affect numerous aspects of our business.

We do not yet know the full impact that the ACA will have on our business. The taxes imposed by the ACA and the expansion in the government's role in the U.S. healthcare industry may result in decreased profits to us, lower reimbursement by payors for our products, and/or reduced medical procedure volumes, all of which may have a material adverse impact on our business, financial condition, results of operations, or cash flows. Certain legislative changes to, and regulatory changes under, the ACA have occurred in the 115th Congress and under the Trump Administration. For instance, the Tax Cuts and Jobs Acts was enacted, which, among other things, removes penalties for not complying with the individual mandate to carry health insurance beginning in 2019. Additional legislative changes to and regulatory changes under the ACA remain possible. Moreover, all or a portion of the ACA and related subsequent legislation may be modified, repealed or otherwise invalidated through judicial challenge, which could result in lower numbers of insured individuals, reduced coverage for insured individuals and adversely affect our business.

In addition, other legislative changes have been proposed and adopted in the United States since the ACA was enacted. On August 2, 2011, the Budget Control Act of 2011 among other things includes aggregate reductions of Medicare payments to providers of 2% per fiscal year, which went into effect on April 1, 2013, and will remain in effect through 2027 unless additional Congressional action is taken. On January 2, 2013, the American Taxpayer Relief Act of 2012 was signed into law which, among other things, further reduced Medicare payments to certain providers, including hospitals.

We expect that additional state and federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare products and services, which could result in reduced demand for our product candidates or additional pricing pressures.

Risks Related to Our Common Stock and This Offering

We will incur significantly increased costs and devote substantial management time as a result of operating as a public company.

As a public company, we will incur significant legal, accounting and other expenses that we did not incur as a private company. For example, we will be subject to the reporting requirements of the Exchange Act, and will be required to comply with the applicable requirements of the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, and the Dodd-Frank Wall Street Reform and Consumer Protection Act, as well as rules and regulations subsequently implemented by the Securities and Exchange Commission, or SEC, and Nasdaq, including the establishment and maintenance of effective disclosure and financial controls and changes in corporate governance practices. We expect that compliance with these requirements will increase our legal and financial compliance costs and will make some activities more time consuming and costly.

In addition, we expect that our management and other personnel will need to divert attention from operational and other business matters to devote substantial time to these public company requirements. In particular, we expect to incur significant expenses and devote substantial management effort toward ensuring compliance with the requirements of Section 404 of the Sarbanes-Oxley Act, which will increase when we are no longer an emerging growth company, as defined by the JOBS Act. We will need to hire additional accounting and financial staff with appropriate public company experience and technical accounting knowledge and may need to establish an internal audit function. We cannot predict or estimate the amount of additional costs we may incur as a result of becoming a public company or the timing of such costs. Additional compensation costs and any future equity awards will increase our compensation expense, which would increase our general and administrative expense and could adversely affect our profitability. We also expect that operating as a public company will make it more difficult and expensive for us to obtain director and officer liability insurance on reasonable terms. As a result, it may be more difficult for us to attract and retain qualified people to serve on our board of directors, our board committees or as executive officers.

Our stock price may be volatile and you may not be able to resell shares of our common stock at or above the price you paid.

The trading price of our common stock following this offering could be highly volatile and could be subject to wide fluctuations in response to various factors, some of which are beyond our control. These factors include those discussed in this “Risk Factors” section of this prospectus and others such as:

- announcements related to regulatory clearance to market gammaCore for the treatment of various conditions in the United States;
- results from, or any delays in, clinical trial programs relating to our product candidates;
- announcements of new products by us or our competitors;
- adverse actions taken by regulatory agencies with respect to our clinical trials, manufacturing supply chain or sales and marketing activities;
- our operating results;
- changes or developments in laws or regulations applicable to our products;
- any adverse changes in our relationship with any manufacturers or suppliers;
- the success of our efforts to acquire or develop additional products;
- any intellectual property infringement actions in which we may become involved;
- announcements concerning our competitors or the medical device industry in general;

- achievement of expected product sales and profitability;
- manufacture, supply or distribution shortages;
- actual or anticipated fluctuations in our operating results;
- FDA or other U.S. or foreign regulatory actions affecting us or our industry or other healthcare reform measures in the United States;
- changes in financial estimates or recommendations by securities analysts;
- trading volume of our common stock;
- sales of our common stock by us, our executive officers and directors or our stockholders in the future;
- general economic and market conditions and overall fluctuations in the U.S. equity markets; and
- the loss of any of our key scientific or management personnel.

In addition, the stock markets in general, and the markets for pharmaceutical and medical device stocks in particular, have experienced volatility. These broad market fluctuations may adversely affect the trading price or liquidity of our common stock. In the past, when the market price of a stock has been volatile, holders of that stock have sometimes instituted securities class action litigation against the issuer. If any of our stockholders were to bring such a lawsuit against us, we could incur substantial costs defending the lawsuit and the attention of our management would be diverted from the operation of our business, which could seriously harm our financial position. Any adverse determination in litigation could also subject us to significant liabilities.

We have broad discretion to determine how to use the funds raised in this offering, and may use them in ways that may not enhance our operating results or the price of our common stock.

Our management will have broad discretion over the use of proceeds from this offering, and we could spend the proceeds from this offering in ways our stockholders may not agree with or that do not yield a favorable return, if at all. We currently expect to use the net proceeds from this offering as follows: (i) to hire additional territory business managers and expand marketing programs to prepare for the full commercial launch of our gammaCore products; (ii) to fund the research and development of our gammaCore products for other indications in headache and rheumatology; (iii) to fund the build out of a specialty distribution channel for the anticipated launch of gammaCore Sapphire in the third quarter of 2018; and (iv) the remainder to fund working capital and general corporate purposes. If we do not invest or apply the proceeds of this offering in ways that improve our operating results, we may fail to achieve expected financial results, which could cause our stock price to decline.

An active, liquid and orderly market for our common stock may not develop, and you may not be able to resell your common stock at or above the public offering price.

Prior to this offering, there was no public market for shares of our common stock, and an active public market for our shares may not develop or be sustained after this offering. We and the representatives of the underwriters have determined the initial public offering price of our common stock through negotiation. This price does not necessarily reflect the price at which investors in the market will be willing to buy and sell our shares following this offering. In addition, an active trading market may not develop following the consummation of this offering or, if it does develop, may not be sustained. The lack of an active market may impair your ability to sell your shares at the time you wish to sell them or at a price that you consider reasonable. An inactive market may also impair our ability to raise capital by selling shares and may impair our ability to acquire other businesses or technologies or in-license new product candidates using our shares as consideration.

If securities or industry analysts do not publish research or reports about our business, or if they issue an adverse or misleading opinion regarding our stock, our stock price and trading volume could decline.

The trading market for our common stock will be influenced by the research and reports that industry or securities analysts publish about us or our business. We do not currently have and may never obtain research coverage by securities and industry analysts. If no or few securities or industry analysts commence coverage of us, the trading price for our stock would be negatively impacted. In the event we obtain securities or industry analyst coverage, if any of the analysts who cover us issues an adverse or misleading opinion regarding us, our business model, our intellectual property or our stock performance, or if our clinical trials and operating results fail to meet the expectations of analysts, our stock price would likely decline. If one or more of these analysts cease coverage of us or fail to publish reports on us regularly, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

We are an "emerging growth company" and as a result of the reduced disclosure and governance requirements applicable to emerging growth companies, our common stock may be less attractive to investors.

We are an "emerging growth company," as defined in the JOBS Act, and we intend to take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. We cannot predict if investors will find our common stock less attractive because we will rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile. We may take advantage of these reporting exemptions until we are no longer an emerging growth company. We will remain an emerging growth company until the earlier of (1) the last day of the fiscal year (a) following the fifth anniversary of the completion of this offering, (b) in which we have total annual gross revenue of at least $1.07 billion, or (c) in which we are deemed to be a large accelerated filer, which means the market value of our common stock that is held by non-affiliates exceeds $700 million as of the prior June 30, and (2) the date on which we have issued more than $1.0 billion in non-convertible debt during the prior three-year period.

We have identified a material weakness in our internal control over financial reporting. If we are unable to remediate this material weakness, or if we experience additional material weaknesses in the future, we may not be able to accurately or timely report our financial condition or results of operations and investors may lose confidence in our financial reports and the market price of our common stock could be adversely affected.

As a public company, we will be required to maintain internal control over financial reporting and to report any material weaknesses in such internal control. Section 404 of the Sarbanes-Oxley Act requires that we evaluate and determine the effectiveness of our internal control over financial reporting and, beginning with our second annual report following this offering, which will be for our fiscal year ending December 31, 2019, provide a management report on internal control over financial reporting. The Sarbanes-Oxley Act also requires that our management report on internal control over financial reporting be attested to by our independent registered public accounting firm, to the extent we are no longer an "emerging growth company," as defined by the JOBS Act. We do not expect to have our independent registered public accounting firm attest to our management report on internal control over financial reporting for so long as we are an emerging growth company.

We are in the process of designing and implementing the internal control over financial reporting required to comply with this obligation, which process will be time consuming, costly and complicated.

Prior to the completion of this offering, we have been a private company with limited accounting personnel and other resources to address our internal control over financial reporting. In preparation of our consolidated financial statements to meet the requirements for this offering, we determined that a material weakness in our internal control over financial reporting related to the accounting for complex transactions existed during each of the years ended December 31, 2016 and 2017, and was unremediated as of December 31, 2017. This material weakness contributed to an error to our consolidated financial statements for the year ended December 31, 2016 relating to the misclassification of our Series A Preferred Units as permanent equity instead of temporary equity. This deficiency did not result in a material misstatement to our 2016 consolidated financial statements.

To remediate this material weakness in our internal control over financial reporting and address the deficiency in our team's accounting processes, we plan to hire additional accounting personnel, establish and document accounting policies and procedures, and implement management review controls. While we intend to implement a plan to remediate this material weakness, we cannot predict the success of such plan or the outcome of our assessment of these plans at this time. We can give no assurance that this implementation will remediate this material weakness in our internal control or that material weaknesses or significant deficiencies in our internal control over financial reporting will not be identified in the future. If we are unable to remediate this material weakness, or if we experience additional material weaknesses in the future or otherwise fail to maintain an effective system of internal controls, we may not be able to accurately or timely report our financial condition or results of operations and investors may lose confidence in the accuracy and completeness of our financial reports and the market price of our common stock could be adversely affected, and we could become subject to investigations by the stock exchange on which our securities are listed, the SEC, or other regulatory authorities, which could require additional financial and management resources.

Purchasers in this offering will experience immediate and substantial dilution in the book value of their investment.

The initial public offering price of our common stock is substantially higher than the net tangible book value per share of our common stock immediately after this offering. Accordingly, if you purchase our common stock in this offering, you will incur immediate substantial dilution of approximately $ per share, based on the initial public offering price of $ per share. In addition, following this offering, purchasers in this offering will have contributed approximately of the total gross consideration paid by stockholders to us to purchase shares of our common stock, but will own only approximately of the shares of common stock outstanding immediately after this offering. Furthermore, if the underwriters exercise their option to purchase additional shares, outstanding options or convertible securities are exercised, or we sell shares of our common stock in future financings, you could experience further dilution. For a further description of the dilution that you will experience immediately after this offering, see the section titled "Dilution."

Sales of a substantial number of shares of our common stock in the public market could cause our stock price to fall.

If our existing stockholders sell, or indicate an intention to sell, substantial amounts of our common stock in the public market after the lock-up and other legal restrictions on resale discussed in this prospectus lapse, the trading price of our common stock could decline. Based upon the number of shares outstanding as of , 2018, upon the closing of this offering, we will have outstanding a total of approximately million shares of common stock, assuming no exercise of the underwriters' option to purchase additional shares. Of these shares, shares of our common stock, plus any shares sold upon exercise of the underwriters' option to purchase additional shares, will be freely tradable, without restriction, in the public market immediately following this offering. Piper Jaffray & Co., however, may, in its/their sole discretion, permit our officers, directors and other stockholders who are subject to lock-up agreements to sell shares prior to the expiration of the lock-up agreements.

The lock-up agreements pertaining to this offering will expire 180 days from the date of this prospectus. After the lock-up agreements expire, up to an additional approximately million shares of common stock will be eligible for sale in the public market, approximately million of which are held by current directors, executive officers and other affiliates and may be subject to Rule 144 under the Securities Act of 1933, as amended, or the Securities Act.

In addition, as of , 2018, approximately million shares of common stock that are subject to outstanding options will become eligible for sale in the public market to the extent permitted by the provisions of various vesting schedules, the lock-up agreements and Rule 144 and Rule 701 under the Securities Act. If these additional shares of common stock are sold, or if it is perceived that they will be sold, in the public market, the trading price of our common stock could decline.

After this offering, the holders of approximately million shares of our outstanding common stock, including shares issuable upon exercise of outstanding options, will be entitled to rights with respect to the registration of their shares under the Securities Act, subject to vesting schedules and to the lock-up agreements described above. Registration of these shares under the Securities Act would result in the shares becoming freely tradable without restriction under the Securities Act, except for shares purchased by affiliates. Any sales of securities by these stockholders could have a material adverse effect on the trading price of our common stock.

Our principal stockholders and management own a significant percentage of our stock and will be able to exert significant control over matters subject to stockholder approval.

As of , 2018, our executive officers, directors, holders of 5% or more of our capital stock and their respective affiliates, including Core Ventures II, LLC and Core Ventures IV, LLC, entities controlled by two of our directors, Joseph P. Errico and Thomas J. Errico, M.D., beneficially owned approximately of our outstanding voting stock and, upon the closing of this offering, that same group will beneficially own approximately of our outstanding voting stock (assuming no exercise of the underwriters' option to purchase additional shares and no exercise of outstanding options). Therefore, even after this offering these stockholders will have the ability to influence us through this ownership position. These stockholders may be able to determine all matters requiring stockholder approval. For example, these stockholders may be able to control elections of directors, amendments of our organizational documents, or approval of any merger, sale of assets, or other major corporate transaction. This may prevent or discourage unsolicited acquisition proposals or offers for our common stock that you may feel are in your best interest as one of our stockholders.

Provisions in our charter documents and under Delaware law could discourage a takeover that stockholders may consider favorable and may lead to entrenchment of management.

Our certificate of incorporation and bylaws that will be in effect prior to the consummation of this offering will contain provisions that could significantly reduce the value of our shares to a potential acquirer or delay or prevent changes in control or changes in our management without the consent of our board of directors. The provisions in our charter documents will include the following:

- a classified board of directors with three-year staggered terms, which may delay the ability of stockholders to change the membership of a majority of our board of directors;
- no cumulative voting in the election of directors, which limits the ability of minority stockholders to elect director candidates;
- the exclusive right of our board of directors to elect a director to fill a vacancy created by the expansion of the board of directors or the resignation, death or removal of a director, which prevents stockholders from being able to fill vacancies on our board of directors;
- the required approval of at least 66 2/3% of the shares entitled to vote to remove a director for cause, and the prohibition on removal of directors without cause;

- the ability of our board of directors to authorize the issuance of shares of preferred stock and to determine the price and other terms of those shares, including preferences and voting rights, without stockholder approval, which could be used to significantly dilute the ownership of a hostile acquiror;
- the ability of our board of directors to alter our bylaws without obtaining stockholder approval;
- the required approval of at least 66 2/3% of the shares entitled to vote at an election of directors to adopt, amend or repeal our bylaws or repeal the provisions of our amended and restated certificate of incorporation regarding the election and removal of directors;
- a prohibition on stockholder action by written consent, which forces stockholder action to be taken at an annual or special meeting of our stockholders;
- the requirement that a special meeting of stockholders may be called only by the chairman of the board of directors, the chief executive officer, the president or the board of directors, which may delay the ability of our stockholders to force consideration of a proposal or to take action, including the removal of directors; and
- advance notice procedures that stockholders must comply with in order to nominate candidates to our board of directors or to propose matters to be acted upon at a stockholders' meeting, which may discourage or deter a potential acquiror from conducting a solicitation of proxies to elect the acquiror's own slate of directors or otherwise attempting to obtain control of us.

In addition, these provisions would apply even if we were to receive an offer that some stockholders may consider beneficial.

We are also subject to the anti-takeover provisions contained in Section 203 of the Delaware General Corporation Law. Under Section 203, a corporation may not, in general, engage in a business combination with any holder of 15% or more of its capital stock unless the holder has held the stock for three years or, among other exceptions, the board of directors has approved the transaction. For a description of our capital stock, see the section titled "Description of Capital Stock."

Claims for indemnification by our directors and officers may reduce our available funds to satisfy successful third-party claims against us and may reduce the amount of money available to us.

Our certificate of incorporation and bylaws provide that we will indemnify our directors and officers to the fullest extent permitted by Delaware law.

In addition, as permitted by Section 145 of the Delaware General Corporation Law, or the DGCL, our amended and restated bylaws to be effective immediately prior to the completion of this offering and our indemnification agreements that we have entered into with our directors and officers provide that:

- we will indemnify our directors and officers for serving us in those capacities or for serving other business enterprises at our request, to the fullest extent permitted by Delaware law. Delaware law provides that a corporation may indemnify such person if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the registrant and, with respect to any criminal proceeding, had no reasonable cause to believe such person's conduct was unlawful;
- we may, in our discretion, indemnify employees and agents in those circumstances where indemnification is permitted by applicable law;
- we are required to advance expenses, as incurred, to our directors and officers in connection with defending a proceeding, except that such directors or officers shall undertake to repay

such advances if it is ultimately determined that such person is not entitled to indemnification;

- we will not be obligated pursuant to our amended and restated bylaws to indemnify a person with respect to proceedings initiated by that person against us or our other indemnitees, except with respect to proceedings authorized by our board of directors or brought to enforce a right to indemnification;
- the rights conferred in our amended and restated bylaws are not exclusive, and we are authorized to enter into indemnification agreements with our directors, officers, employees and agents and to obtain insurance to indemnify such persons; and
- we may not retroactively amend our amended and restated bylaw provisions to reduce our indemnification obligations to directors, officers, employees and agents.

We do not currently intend to pay dividends on our common stock, and, consequently, your ability to achieve a return on your investment will depend on appreciation in the price of our common stock.

We do not currently intend to pay any cash dividends on our common stock for the foreseeable future. We currently intend to invest our future earnings, if any, to fund our growth. Therefore, you are not likely to receive any dividends on your common stock for the foreseeable future. Since we do not intend to pay dividends, your ability to receive a return on your investment will depend on any future appreciation in the market value of our common stock. There is no guarantee that our common stock will appreciate or even maintain the price at which our holders have purchased it.

Comprehensive U.S. federal income tax reform could adversely affect us.

On December 22, 2017, President Trump signed into law the "Tax Cuts and Jobs Act", or TCJA, that significantly reforms the Internal Revenue Code of 1986, or the Code, as amended. The TCJA, among other things, includes changes to U.S. federal tax rates, imposes significant additional limitations on the deductibility of interest, allows for the expensing of capital expenditures, and puts into effect the migration from a "worldwide" system of taxation to a modified territorial system. We continue to examine the impact this tax reform legislation may have on our business. The impact of this tax reform on holders of our common stock is uncertain and could be adverse. This prospectus does not discuss any such tax legislation or the manner in which it might affect purchasers of our common stock. We urge our stockholders, including purchasers of common stock in this offering, to consult with their legal and tax advisors with respect to such legislation and the potential tax consequences of investing in our common stock.

Our amended and restated certificate of incorporation provides that the Court of Chancery of the State of Delaware and the federal district courts of the United States will be the exclusive forums for substantially all disputes between us and our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers, or employees.

Our certificate of incorporation provides that the Court of Chancery of the State of Delaware is the exclusive forum for:

- any derivative action or proceeding brought on our behalf;
- any action asserting a breach of fiduciary duty;
- any action asserting a claim against us arising under the Delaware General Corporation Law, our certificate of incorporation, or our bylaws; and
- any action asserting a claim against us that is governed by the internal-affairs doctrine.

Our certificate of incorporation further provides that the federal district courts of the United States will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act.

These exclusive-forum provisions may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers, or other employees, which may discourage lawsuits against us and our directors, officers, and other employees. If a court were to find either exclusive-forum provision in our certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving the dispute in other jurisdictions, which could seriously harm our business.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains statements that express our opinions, expectations, beliefs, plans, objectives, assumptions or projections regarding future events or future results, in contrast with statements that reflect historical facts. Many of these statements are contained under the headings “Prospectus Summary,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Business.” In some cases, we have identified such forward-looking statements with typical conditional words such as “anticipate,” “intend,” “believe,” “estimate,” “plan,” “seek,” “project,” “expect,” “may,” “will,” “would,” “could,” “should,” the negative of these terms or other comparable terminology.

Forward-looking statements are not a guarantee of performance, and you should not place undue reliance on such statements. We have based forward-looking statements largely on our current expectations and projections about future events. Forward-looking statements are subject to many uncertainties and other variable circumstances, including those discussed in this prospectus under the headings “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” many of which are outside of our control, that could cause our actual results and experience to differ materially from any forward-looking statement. Given these risks and uncertainties, you are cautioned not to place undue reliance on these forward-looking statements. The forward-looking statements included in this prospectus are made only as of the date hereof. We do not undertake, and specifically decline, any obligation to update any such statements or to publicly announce the results of any revisions to any of such statements to reflect future events or developments.

USE OF PROCEEDS

We estimate, based upon an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, we will receive net proceeds from this offering of approximately $ million (or $ million if the underwriters exercise their option to purchase additional shares of common stock in full), after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The principal purposes of this offering are to obtain additional capital to support our operations, create a public market for our common stock and to facilitate future access to the public equity markets. We currently estimate that we will use the net proceeds from this offering as follows:

(i) approximately $ million to hire additional territory business managers and expand marketing programs to prepare for the full commercial launch of our gammaCore products in the United States, initially for the acute treatment of migraine and eCH in the United States;

(ii) approximately $ million to fund the research and development of our gammaCore products for other indications in headache and rheumatology;

(iii) approximately $ million to fund the build out of a specialty distribution channel for the anticipated launch of gammaCore Sapphire in the third quarter of 2018; and

(iv) the remainder to fund working capital and general corporate purposes.

In addition, we may also use a portion of our net proceeds from this offering to acquire and invest in complementary products, technologies, services or businesses; however, we currently have no plans, agreements or commitments to complete any such transaction nor are we involved in negotiations to do so.

Our expected use of net proceeds from this offering represents our current intentions based upon our plans and business condition. As of the date of this prospectus, we cannot predict with certainty all of the particular uses for the net proceeds to be received upon the completion of this offering or the amounts that we will actually spend on the uses set forth above. The amounts and timing of our actual use of the net proceeds will vary depending on numerous factors, including the factors described under the heading “Risk Factors” in this prospectus. As a result, management will have broad discretion in its application of the net proceeds, and investors will be relying on our judgment in such application.

Pending use of the net proceeds from this offering, we may invest in short- and intermediate-term interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government.

Although it is difficult to predict future liquidity requirements, we believe that the net proceeds from this offering, together with our existing cash and cash equivalents, will be sufficient to fund our operations for at least the next 12 months.

DIVIDEND POLICY

We have never declared or paid cash dividends on our capital stock. We do not expect to pay dividends on our common stock for the foreseeable future. Instead, we anticipate that all of our earnings, if any, will be used for the operation and growth of our business. Any future determination to declare cash dividends would be subject to the discretion of our board of directors and would depend upon various factors, including our results of operations, financial condition and capital requirements, restrictions that may be imposed by applicable law and our contracts and other factors deemed relevant by our board of directors.

CORPORATE CONVERSION

We currently operate as a Delaware limited liability company under the name Electrocore, LLC. Prior to the closing of this offering, Electrocore, LLC will convert into a Delaware corporation pursuant to a statutory conversion and change its name to electroCore, Inc. In order to consummate the corporate conversion, a certificate of conversion will be filed with the Secretary of State of the State of Delaware. As part of the corporate conversion, based on the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, all Units will be converted into an aggregate of shares of our common stock and options to purchase shares of our common stock as follows:

- holders of our common units, or Common Units, other than Common Units that were originally issued as "profits interests" (as such term is used for purposes of the Code), or Profits Interests, will receive an aggregate of shares of our common stock;
- holders of our Series A Preferred Units will receive an aggregate of shares of our common stock, which includes shares of our common stock as payment in full of the accrued and unpaid preferred return payable in respect of the Series A Preferred Units;
- holders of our Series B Preferred Units will receive an aggregate of shares of our common stock; and
- holders of our Profits Interests will receive an aggregate of shares of our common stock and, with respect to such holders who are our employees or consultants at the time of the corporate conversion, options to purchase an aggregate of shares of our common stock, with an exercise price equal to the initial public offering price.

In addition, based on the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus:

- warrants, other than warrants that expire in connection with this offering, to purchase Common Units will be converted into warrants to purchase shares of our common stock;
- warrants to purchase Series A Preferred Units will be converted into warrants to purchase shares of our common stock; and
- warrants to purchase Series B Preferred Units will be converted into warrants to purchase shares of our common stock.

The number of shares of common stock and the number of shares of common stock issuable pursuant to options and warrants in connection with the corporate conversion will be determined pursuant to the applicable provisions of the plan of conversion, which is based upon terms of our Operating Agreement. The Operating Agreement provides that each outstanding series of our Preferred Units will automatically convert (which we refer to as the Automatic Conversion) into Common Units at the applicable conversion ratio (currently, on a one-for-one basis) upon either the closing of a Qualified Public Offering, as defined in the Operating Agreement, or the written consent executed by members of Electrocore, LLC holding a sufficient number of each class of our Preferred Units and Common Units as required under our Operating Agreement. We anticipate receiving written consents from the required holders of our Units to effect the Automatic Conversion.

Following the Automatic Conversion and effective upon the consummation of the corporate conversion, all of the outstanding Units will convert into a number of shares of common stock and options to purchase common stock of electroCore, Inc. based upon the value of Electrocore, LLC at the time of this offering with a value implied by the initial public offering price of the shares of common stock sold in

this offering. Upon conversion, the shares of common stock of electroCore, Inc. and options to purchase our common stock will be allocated among the various classes and series of Units in accordance with the distribution and other applicable provisions set forth in the Operating Agreement. Similarly, the number of shares of common stock for which warrants will become exercisable following the corporate conversion will be determined based on the terms of such warrants. No cash or fractional shares of common stock will be issued in connection with the corporate conversion.

In connection with the corporate conversion, all outstanding Common Units, other than Common Units issued as Profits Interests, and Preferred Units of Electrocore, LLC will be converted into our common stock on a one-for-one basis. In addition, we expect to issue shares of our common stock to the holders of our Series A Preferred Units to satisfy approximately $3.6 million of accrued and unpaid preferred return on such units. Additionally, in connection with the corporate conversion, our Profits Interests will be converted into (i) shares of our common stock, and (ii) with respect to Profits Interests that are held by our current employees and consultants at the time of the conversion, options to purchase our common stock. The number of shares of common stock and the number of options to be issued to each such holder of Profits Interests will be determined based upon the appreciation in our value after the date of grant of the applicable Profits Interests through the completion of this offering. The exercise price of these options will be equal to the initial public offering price. Following the corporate conversion, the vesting provisions applicable to the Profits Interests as in effect prior to the corporate conversion will apply, in substantially the same manner, to the shares of common stock and options issued in respect of such Profits Interests in the corporate conversion.

Because the exact number of shares of our common stock to be issued to holders of Units in the corporate conversion, the number of shares of common stock for which warrants will be exercisable following the corporate conversion and the number of shares of common stock and options to purchase common stock that holders of Profits Interests will receive in the corporate conversion is based on the initial public offering price, to the extent that the actual initial public offering price per share for this offering is greater or less than $, which is the midpoint of the price range set forth on the cover page of this prospectus, the actual number of shares of common stock to be issued to holders of Units, the number of shares of common stock for which options and warrants will be exercisable and the total number of shares of common stock outstanding following the corporate conversion will be adjusted accordingly. See “Pricing Sensitivity Analysis” for how the number of shares to be issued in the corporate conversion or issuable thereafter upon exercise of options and warrants would be affected by an initial public offering price per share of common stock at the low-, mid- and high-points of the estimated price range set forth on the cover of this prospectus or if the underwriters’ option to purchase additional shares of common stock is exercised in full.

In connection with the corporate conversion, electroCore, Inc. will hold all property and assets of Electrocore, LLC and all of the debts and obligations of Electrocore, LLC will become the debts and obligations of electroCore, Inc. by operation of law. electroCore, Inc. will be governed by a certificate of incorporation filed with the Delaware Secretary of State and bylaws, the material portions of each of which are described under the heading “Description of Capital Stock.”

On the effective date of the corporate conversion, the members of the board of managers of Electrocore, LLC will become the members of electroCore, Inc.’s board of directors and the officers of Electrocore, LLC will become the officers of electroCore, Inc.

The purpose of the corporate conversion is to reorganize our corporate structure so that the entity that is offering common stock to the public in this offering is a corporation rather than a limited liability company and so that our existing investors will own our common stock rather than equity interests in a limited liability company. References in this prospectus to our capitalization and other matters pertaining to our equity and shares prior to the corporate conversion relate to the capitalization and equity and units of Electrocore, LLC, and after the corporate conversion, to electroCore, Inc.

The audited consolidated financial statements included elsewhere in this prospectus are those of Electrocore, LLC and its subsidiaries and affiliate. We expect that our conversion from a Delaware limited liability company to a Delaware corporation will not have a material effect on our consolidated financial statements at the time of the corporate conversion.

CAPITALIZATION

The following table sets forth our cash, cash equivalents, debt securities and other investments available for sale and securities and our capitalization as of March 31, 2018:

- on an actual basis;
- on a pro forma basis to give effect to the corporate conversion, based on the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus; and
- on a pro forma as adjusted basis to give further effect to the sale of shares of our common stock in this offering, assuming an initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us and the application of the proceeds therefrom.

The pro forma and pro forma as adjusted information below is illustrative only, and our capitalization following the corporate conversion and the closing of this offering will depend on the actual initial public offering price and other terms of this offering determined at pricing. You should read the following information together with the information contained under the headings “Selected Consolidated Financial Data” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our audited and unaudited consolidated financial statements and the accompanying notes appearing elsewhere in this prospectus.

	As of March 31, 2018		
	Actual	Pro forma[1][3]	Pro forma as adjusted[2]
	(unaudited; in thousands, except unit and share data)		
Cash, cash equivalents, debt securities and other investments available for sale	$ 26,706.5	$	$
Warrant liability	$ 2,485.4	$	$
Convertible Preferred Units:			
Series A Preferred Units, 71,050,860 units authorized, 70,918,506 units issued and outstanding, actual; none issued and outstanding, pro forma, and pro forma as adjusted	53,518.5	—	—
Series B Preferred Units, 123,000,000 units authorized, 105,186,020 units issued and outstanding, actual; none issued and outstanding, pro forma, and pro forma as adjusted	68,755.5	—	—
Total convertible Preferred Units	122,274.0	—	—
Members’ “stockholders’” equity:			
Preferred stock, par value $0.001 per share; no shares authorized, issued and outstanding, actual; 10,000,000 shares authorized, none issued and outstanding, pro forma, and pro forma as adjusted	—		
Common stock, par value $0.001 per share; no shares authorized, issued and outstanding, actual; 500,000,000 shares authorized, shares issued and outstanding, pro forma; shares issued and outstanding, pro forma as adjusted	—		
Common Units, 600,000,000 units authorized, 218,982,140 units issued and outstanding, actual; none issued and outstanding, pro forma, and pro forma as adjusted	40,180.6	—	—
Additional paid-in-capital	22,863.6		
Accumulated deficit	(162,427.5)		
Accumulated other comprehensive income	(59.0)		
Noncontrolling interest	609.1		
Total members’/stockholders’ equity (deficit)	(98,833.1)		
Total capitalization	$ 47,662.0	$	$

(1) Each $1.00 increase (decrease) in the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted amount of each of cash, cash equivalents, debt securities and other investments available for sale, additional paid-in-capital, total stockholders' equity and total capitalization by $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, each increase (decrease) of 1.0 million shares in the number of shares offered by us at the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted amount of each of cash, cash equivalents, debt securities and other investments available for sale, additional paid-in-capital, total stockholders' equity and total capitalization by $ million.

(2) In connection with the corporate conversion, Common Units, Series A Preferred Units, Series B Preferred Units, additional paid-in capital and accumulated deficit will be reduced to zero to reflect the elimination of all outstanding Units and other interests in Electrocore, LLC and corresponding adjustments will be reflected as common stock, additional paid-in capital, and total stockholders' equity (deficit).

(3) The following table presents the number of shares of common stock issuable in connection with the corporate conversion to holders of Series A Preferred Units, Series B Preferred Units, Common Units and Profits Interests, based on the assumed initial public offering price per common share of $, which is the midpoint of the price range set forth on the cover page of this prospectus.

Common stock issuable for:	
Common Units	218,982,141
Series A Preferred Units	70,918,506
Series B Preferred Units	105,186,020
Profits Interests	—
Total	395,086,667

The capitalization table presented above excludes, after giving effect to the corporate conversion:

- shares of common stock issuable upon exercise of outstanding options or options to be issued for certain Profits Interests to purchase shares of common stock as of , at a weighted-average exercise price equal to the assumed initial public offering price per share of common stock of $, which is the midpoint of the price range set forth on the cover page of this prospectus; and
- an additional shares of common stock reserved for future issuance under the 2018 Plan; and
- shares issuable upon the exercise of warrants at a weighted-average exercise price of $ per share following the corporate conversion. See "Corporate Conversion" and "Pricing Sensitivity Analysis" for additional information.

DILUTION

If you invest in our common stock, your ownership interest will be diluted immediately to the extent of the difference between the initial public offering price per share of our common stock and the pro forma as adjusted net tangible book value per share of our common stock immediately after this offering. Net tangible book value per share represents the book value of our total tangible assets less the book value of our total liabilities divided by the number of shares of common stock then issued and outstanding.

After giving effect to the corporate conversion, pro forma net tangible book value as of March 31, 2018 was $ million, or $ per share based on the shares of common stock issued and outstanding after the corporate conversion based on an assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus). After giving effect to our sale of common stock in this offering at the initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus), and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value as of March 31, 2018 would have been $ million, or $ per share (assuming no exercise of the underwriters' option to purchase additional shares of our common stock). This represents an immediate and substantial dilution of $ per share to new investors purchasing common stock in this offering. The following table illustrates this dilution per share:

Assumed initial public offering price per share		$
Pro forma net tangible book value per share as of March 31, 2018	$	
Decrease in net tangible book value per share attributable to this offering	$	
Pro forma as adjusted net tangible book value per share after giving effect to this offering		$
Dilution per share to new investors in this offering		$

If the underwriters exercise their option to purchase additional shares in full, our pro forma as adjusted net tangible book value per share after this offering would be $ per share, and the dilution in pro forma net tangible book value per share to new investors in this offering would be $ per share.

The following table summarizes, on a pro forma as adjusted basis as of March 31, 2018, the differences between the number of shares of common stock purchased from us, the total price and the average price per share paid by existing stockholders and by the new investors in this offering, before deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, at an assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus).

	Shares purchased		Total consideration		Average price per share
	Number	Percent	Amount (in millions)	Percent	
Existing investors		%	$	%	$
New investors in this offering					$
Total		%	$	%	$

See "Pricing Sensitivity Analysis" for how some of the information presented above would be affected by an initial public offering price per share of common stock at the low-, mid- and high-points of the

estimated price range set forth on the cover of this prospectus or if the underwriters' option to purchase additional shares of common stock is exercised in full.

The discussion and table above assume no exercise of stock options to be outstanding after giving effect to the corporate conversion and no issuance of shares of our common stock reserved for issuance under our 2018 Plan, which include:

- shares issuable upon the exercise of options to be outstanding after giving effect to the corporate conversion at an exercise price equal to the initial public offering price of $ per share following the corporate conversion;
- shares issuable upon the exercise of warrants at a weighted-average exercise price of $ per share following the corporate conversion; and
- shares of common stock reserved for issuance pursuant to future awards under the 2018 Plan, which will become effective immediately prior to the consummation of this offering.

If, after giving effect to the corporate conversion, all of our outstanding options to be outstanding after giving effect to the corporate conversion and warrants were exercised, our pro forma as adjusted net tangible book value as of March 31, 2018 would have been $ per share and our pro forma as adjusted net tangible book value after giving effect to this offering would have been $ per share, causing dilution to new investors purchasing shares in this offering of $ per share. Shares purchased by new investors would then represent % of the shares purchased from us for % of the total consideration.

To the extent that options to be outstanding after giving effect to the corporate conversion are exercised, new options are issued under the 2018 Plan, or we issue additional shares of common stock in the future, there will be further dilution to investors participating in this offering. In addition, we may choose to raise additional capital because of market conditions or strategic considerations, even if we believe that we have sufficient funds for our current or future operating plans. If we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

The number of shares of common stock of electroCore, Inc. that holders of units will receive in the corporate conversion and the number of shares of common stock that options and warrants will be exercisable for following the corporate conversion will vary depending on the initial public offering price set forth on the cover page of this prospectus. See "Corporate Conversion and "Pricing Sensitivity Analysis" for additional information.

SELECTED CONSOLIDATED FINANCIAL DATA

The selected consolidated statements of operations data for the three months ended March 31, 2018 and 2017 and the selected consolidated balance sheet data as of March 31, 2018 are derived from our unaudited consolidated financial statements included elsewhere in this prospectus. The selected consolidated statement of operations data for the years ended December 31, 2017 and 2016 and the selected consolidated balance sheet data as of December 31, 2017 and 2016 are derived from our audited consolidated financial statements included elsewhere in this prospectus. We have prepared the unaudited consolidated financial information set forth below on the same basis as our audited consolidated financial statements and have included all adjustments, consisting of only normal recurring adjustments, that we consider necessary for fair presentation of our financial position and operating results for such periods. Our historical results are not necessarily indicative of the results that may be expected in any future period. The results for any interim period are not necessarily indicative of the results that may be expected for a full year. The selected consolidated financial data below should be read in conjunction with the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our audited and unaudited consolidated financial statements and related notes included elsewhere in this prospectus.

	Three months ended March 31,		Years ended December 31,	
	2018	2017	2017	2016
	(unaudited)			
	(in thousands, except unit and per unit amounts)			
Consolidated statements of operations:				
Net sales	$ 81.2	$ 116.9	$ 811.5	$ 254.1
Cost of goods sold	48.9	72.7	518.6	123.7
Gross profit	32.2	44.2	292.9	130.4
Operating expenses				
Research and development	2,306.3	1,726.6	7,830.9	7,971.3
Selling, general and administrative	6,824.8	3,059.3	18,106.6	7,169.3
Total operating expenses	9,131.1	4,785.8	25,937.5	15,140.6
Loss from operations	(9,098.9)	(4,741.6)	(25,644.6)	(15,010.2)
Other expense (income)				
Interest expense	—	1,040.1	6,295.9	234.4
Net loss on settlement of convertible bridge notes	—	—	3,868.8	—
Amortization of debt issuance costs	—	269.2	827.3	536.9
Change in fair value of warrant liability	245.9	178.0	(861.8)	—
Change in fair value of derivative instrument related to convertible bridge notes	—	128.1	348.2	—
Interest and other income, net	(109.3)	—	(99.0)	—
Other	208.1	—	4.9	—
Net loss	(9,443.5)	(6,356.9)	(36,028.9)	(15,781.5)
Less Net income (loss) attributable to noncontrolling interest	55.0	—	(236.4)	(44.1)
Net loss attributable to Electrocore, LLC, subsidiaries and affiliate	$ (9,498.5)	$ (6,356.9)	$ (35,792.5)	$ (15,737.4)

	Three months ended March 31,		Years ended December 31,	
	2018	2017	2017	2016
	(unaudited)		(in thousands, except unit and per unit amounts)	
Pro forma net loss per share data[1]:				
Pro forma net loss per share—basic and diluted (unaudited)	$	$	$	$
Pro forma weighted average number of common shares used to calculate loss per share—basic and diluted (unaudited)				

	As of March 31,	As of December 31,	
	2018	2017	2016
	(Unaudited)	in thousands	
Consolidated balance sheet data:			
Cash and cash equivalents	$ 1,520.5	$ 13,224.2	$ 416.3
Debt securities and other investments available for sale	25,186.0	23,950.6	—
Working capital[2]	23,397.0	32,914.1	(3,629.4)
Total assets	31,274.7	39,232.7	622.0
Long-term debt	—	—	3,666.0
Series A Preferred Units	53,518.5	53,518.5	53,518.5
Series B Preferred Units	68,755.5	68,755.5	—
Common Units	40,180.6	40,180.6	30,912.1
Total members'/stockholders' equity (deficit)	(98,833.1)	(89,467.6)	(61,053.5)

(1) We have presented pro forma basic and diluted net loss per share for the three months ended March 31, 2018 and the years ended December 31, 2017 and 2016, which consists of our historical net loss attributable to Electrocore LLC, subsidiaries and affiliate, divided by the pro forma basic and diluted weighted average number of shares of common stock outstanding after giving effect to the conversion of all of our outstanding Common Units, Series A Preferred Units and Series B Preferred Units into shares of our common stock prior to the closing of this offering. Net loss used in calculating net loss per share does not reflect (i) the estimated expenses of this offering or (ii) compensation and expenses for our board of directors and other costs related to operating as a public company. For more information on how we calculate basic and diluted pro forma weighted average number of shares outstanding, see Note 9 to our audited consolidated financial statements and Note 11 to our unaudited consolidated financial statements included elsewhere in this prospectus. The calculations described above do not give effect to the potential issuance of shares of common stock at the initial public offering price in satisfaction of accrued but unpaid preferred return to our preferred stockholders (which we expect to pay in shares of common stock valued at the offering price).

(2) We define working capital as current assets less current liabilities.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion of our results of operations and financial condition should be read together with the "Selected Consolidated Financial Data" section, our audited and unaudited historical financial statements and the notes therein included in this prospectus as well as the discussion in the Business section of this prospectus. This discussion contains forward-looking statements that involve risks and uncertainties. The forward-looking statements are not historical facts, but rather are based on current expectations, estimates, assumptions and projections about our industry, business and future financial results. Our actual results could differ materially from the results contemplated by these forward-looking statements due to a number of factors, including those discussed in the sections of this prospectus entitled "Risk Factors" and "Special Note Regarding Forward-Looking Statements."

Overview

We are a commercial-stage bioelectronic medicine company with a platform non-invasive vagus nerve stimulation therapy initially focused on neurology and rheumatology. Our therapy, gammaCore, has pharmacologic effects on the peripheral and central nervous systems, which modulate neurotransmitters and immune function. gammaCore is FDA-cleared for the acute treatment of pain associated with migraine and episodic cluster headache. Based on our clinical data, we are pursuing label expansions for the prevention of migraine, migraine in adolescents and post-traumatic headache, and are also engaging in clinical development for potential new labeling claims in rheumatology, including Sjôgren's syndrome and rheumatoid arthritis.

Following our initial FDA clearance, our commercial strategy has been to establish gammaCore as a first-line treatment option for episodic cluster headache patients, who have few alternative treatment options available to them. This strategy is supported by a product registry initiated in July 2017 to build advocacy among key opinion leaders in 55 leading headache centers in the United States, and to generate patient demand in the form of prescriptions submitted to payors. We intend to leverage this advocacy as we expand into the broader headache market for both migraine and cluster headache in the third quarter of 2018.

Since our inception in 2005, we have devoted substantially all of our resources to the development of vagus nerve stimulation, or VNS, and the commercialization of our gammaCore therapy. Since our inception, we have received gross cash proceeds of approximately $160.3 million from the sale of our equity securities, including the conversion or exercise of our convertible promissory notes, term loan and warrants. From August 2017 through December 2017, in connection with closings of our Series B Preferred Unit financing, we received net cash proceeds of approximately $44.5 million net of the conversion of outstanding convertible promissory notes, or Bridge Notes, accrued interest thereon and advisor fees.

We have never been profitable and have incurred net losses in each year since our inception. We incurred net losses of $9.5 million and $6.4 million for the three months ended March 31, 2018 and March 31, 2017, respectively, and net losses of $35.8 million and $15.7 million for the years ended December 31, 2017 and December 31, 2016, respectively. As of March 31, 2018, our accumulated deficit was $162.4 million. We expect to continue to incur substantial net losses and negative cash flows from operations for at least the next several years as we commercialize gammaCore for the acute treatment of pain associated with migraine and episodic cluster headache in adults. We intend to make a significant investment in building our U.S. commercial infrastructure and in recruiting and training our sales representatives. We also intend to continue to make significant investments in research and development to expand our gammaCore therapy for the treatment of other indications, including additional headache conditions and rheumatology. Furthermore, upon the closing of this offering, we expect to incur additional

costs associated with operating as a public company, including significant legal, accounting, investor relations and other expenses that we did not incur as a private company.

As a result, we will need substantial additional funding to support our continuing operations and pursue our growth strategy. Until such time as we can generate sufficient revenue to cover our operating expenses and growth strategy, if ever, we expect to finance our operations through the sale of equity, debt financings or other capital sources, including potential collaborations with other companies and other strategic transactions. We may be unable to raise additional funds or enter into such other agreements or arrangements when needed on favorable terms, or at all. If we fail to raise capital or enter into such agreements as, and when needed, we may have to significantly delay, scale back or discontinue the development and commercialization of gammaCore, or delay our pursuit of potential additional labeling claims.

We face a variety of challenges and risks, which we will need to address and manage as we pursue our strategy, including our ability to develop and retain an effective sales force, achieve market acceptance of gammaCore among physicians, patients and third-party payors, and expand the use of gammaCore to additional therapeutic indications.

Because of the numerous risks and uncertainties associated with our commercialization efforts, as well as research and clinical development activities, we are unable to predict the timing or amount of increased expenses, or when, if ever, we will be able to achieve or maintain profitability. Even if we are able to increase sales of gammaCore, we may not become profitable. If we fail to become profitable or are unable to sustain profitability, then we may be unable to continue our operations at planned levels and be forced to reduce or terminate our operations.

As of March 31, 2018, we had cash and cash equivalents, debt securities and other investments available for sale, of $26.7 million. We believe that the anticipated net proceeds from this offering, together with our existing cash resources, will enable us to fund our operating expenses and capital expenditure requirements through at least June 2019. We have based these estimates on assumptions that may prove to be wrong, and we could exhaust our available capital resources sooner than we expect. See “—Liquidity and Capital Resources.”

Statutory Corporate Conversion

We currently operate as a Delaware limited liability company, under the name Electrocore, LLC. Prior to the closing of this offering, Electrocore, LLC will convert into a Delaware corporation pursuant to a statutory conversion and change its name to electroCore, Inc. As a result of the corporate conversion, the holders of the different classes and series of units of Electrocore, LLC will become holders of common stock and options to purchase common stock of electroCore, Inc. Our Common Units, other than Common Units issued as profits interests under the Code, or Profits Interests, Series A Preferred Units and Series B Preferred Units will convert into shares of our common stock on a one-for-one basis in the corporate conversion. Our Profits Interests will be converted into (i) shares of our common stock, and (ii) with respect to Profits Interests that are held by our current employees and consultants at the time of the corporate conversion, options to purchase our common stock. The number of shares of common stock and the number of options to be issued in respect of the Profits Interests will be determined based upon the appreciation in our value after the date of grant of the applicable Profits Interest through the completion of this offering. The exercise price of these options will be equal to our initial public offering price. Following the corporate conversion, the vesting provisions applicable to the Profits Interests as in effect prior to the corporate conversion will apply, in substantially the same manner, to the shares of common stock and options issued in respect of such Profits Interests in the corporate conversion. Other than warrants that expire in connection with the completion of this offering, holders of warrants to purchase units of ElectroCore, LLC will become holders of warrants to purchase common stock of electroCore, Inc.

The purpose of the corporate conversion is to reorganize our corporate structure so that the entity that is offering our common stock to the public in this offering is a corporation rather than a limited liability company and so that our existing investors will own our common stock rather than equity interests in a limited liability company. For further information regarding the corporate conversion, see "Corporate Conversion." References in this prospectus to our capitalization and other matters pertaining to our equity prior to the corporate conversion relate to the capitalization and equity of Electrocore, LLC, and after the corporate conversion, to electroCore, Inc.

The consolidated financial statements included elsewhere in this prospectus are those of Electrocore, LLC and its subsidiaries and affiliate. We expect that our conversion from a Delaware limited liability company to a Delaware corporation will not have a material effect on our consolidated financial statements at the time of the corporate conversion.

Components of Our Results of Operations

Net Sales

We expect to generate the majority of our net sales from the United States. In April 2017, we received FDA clearance for gammaCore for the acute treatment of pain associated with episodic cluster headache. In July 2017, we began a product registry for episodic cluster headache in the United States and as a result generated our first U.S. revenue relative to this FDA clearance. Through this registry, we are seeking to establish a base of advocacy among key opinion leaders in the headache field and to generate patient demand through prescriptions submitted to the payors. Given our limited resources, we believe that choosing to enter the market with a targeted product registry that prioritized early development of advocacy and reimbursement best positions us for commercial launch in the United States in the third quarter of 2018. In January 2018, we received FDA clearance for gammaCore for the acute treatment of pain associated with migraine headaches. In July 2017, we implemented a co-payment assistance program whereby we assumed responsibility for a fixed amount of copayment for the patient. Costs for this program were immaterial for the year ended 2017. For the three months ended March 31, 2018 costs for this program are reflected as a reduction of the transaction price of units sold within our net sales.

In February 2018 we began a formal physician training program highlighting the clinical evidence and benefits of gammaCore for the acute treatment of pain associated with migraine and episodic cluster headache. Concurrently, to incentivize these physicians to issue prescriptions and increase market penetration, we began a voucher program providing new patients with a one-time 31-day therapy at no charge to the patient. While the voucher program has increased demand, the transaction price for each unit sold through the voucher program is reduced by the amount of the one-time free 31-day therapy which offsets the effects of the increased demand for gammaCore. Our revenue reflects only gammaCore units sold either for new patients, or existing patients refills, that are not related to our voucher program.

Prior to December 31, 2017, we generated the majority of our revenue from the European CE Mark approval for gammaCore that we obtained in 2011 for five different indications, including primary headache. This allowed us to commercialize gammaCore in the European Economic Area and other countries that recognize the European CE Mark. Following receipt of our CE marks in 2011 and prior to receipt of our FDA clearance in the United States, we limited our commercialization effort outside the United States to Germany and the United Kingdom. Revenue, however, was minimal primarily due to limited published pivotal clinical data to support reimbursement in these countries. Now that our pivotal trials (ACT 1, ACT 2 and PRESTO) have been completed, we are awaiting publication of the PRESTO data. These data are expected to be published prior to the end of 2018, along with the published ACT 1 and ACT 2 data, to the reimbursement authorities in Germany and the United Kingdom for review for reimbursement consideration. We intend to explore select international markets to commercialize our gammaCore therapy based on reimbursement outcomes and as our resources permit, using direct, dealer and distributor sales models as the targeted market best dictates.

We expect net sales of gammaCore to increase in the future as a result of new FDA clearances for indications for our therapy and as we expand our sales, marketing and distribution capabilities to support growth in the United States and in select markets internationally.

Cost of Goods Sold

Cost of goods sold consists primarily of direct material, direct labor and overhead costs. A significant portion of our cost of goods sold consists of overhead costs such as quality assurance, warehousing and shipment, facilities, depreciation on equipment and operations supervision and management. Due to our relatively low production volumes compared to our available assembling capacity, a large portion of our costs for our gammaCore therapy consists of overhead expense. If our production volumes increase as expected in the future, we anticipate that our per unit production costs will decrease.

Gross Profit

We calculate gross profit as net sales less cost of goods sold. Our gross profit has been and will continue to be affected by a variety of factors, including production volumes, assembly costs, product reliability and the implementation of cost-reduction strategies over time. We expect our gross profit to increase over time as our production volume increases and as we spread the fixed portion of our assembly and production overhead costs over a larger number of units produced, thereby significantly reducing our per unit assembly costs. However, our gross profit as a percentage of net sales, or gross margin, will be impacted by numerous factors including commencement of sales of our next generation product gammaCore Sapphire in the United States, or any other future products, which may have higher product costs.

Research and Development

Our research and development expenses consist primarily of employee compensation, engineering, product development, tooling, proprietary data warehouse development and enhancements, quality assurance, clinical trial and regulatory expenses incurred in the development and FDA clearance of our gammaCore therapy. Research and development expenses also include consulting services, outside services and materials. We expense research and development costs as they are incurred.

Selling, General and Administrative

Our selling, general and administrative expenses consist primarily of personnel related costs (including compensation, benefits, and unit based compensation) for executive, finance, administrative and field based personnel, costs for commercial related infrastructure, and market development. In anticipation of clearance from the FDA and commencement of commercial sales in the United States, we incurred a significant increase in compensation costs as additional personnel were hired to oversee the execution of the commercial plan in the United States and Europe. Significant expenses include costs associated with marketing and advertising, salesforce, professional fees for legal services, including legal services associated with our efforts to obtain and maintain broad protection for the intellectual property related to our products, rent, compliance, payor reimbursement development, accounting services, and consulting fees.

We expect selling, general and administrative expenses to continue to grow as we seek to execute our commercial and research and development plans. We also expect other non-employee-related costs, including outside services and accounting and legal costs to increase. The timing of these increased expenditures and their magnitude are primarily dependent on the commercial success and sales growth of gammaCore and gammaCore Sapphire. In addition, we expect to incur increased selling, general and administrative expenses in connection with being a public company, which may further increase when we are no longer able to rely on certain “emerging growth company” exemptions we are afforded under the JOBS Act.

Amortization of Debt Issuance Costs

Amortization of debt issuance costs consist primarily of the amortization of costs, including cash, warrants and common units issued to advisors and bankers, in conjunction with our issuance of Bridge Notes. These items were recorded as a discount on the Bridge Notes and amortized on a straight line basis over the term of the Bridge Notes until their conversion to Series B Preferred Units in August 2017.

Net Loss on Settlement of Bridge Notes

The loss on settlement of debt is attributable to the conversion of the Bridge Notes into Series B Preferred Units in August 2017 (see Note 12 to the audited consolidated financial statements included elsewhere in this prospectus).

Interest Expense

Interest expense consists of interest on our term loans and Bridge Notes. Interest includes both the stated fixed rate of interest on the term loans and Bridge Notes, as well as the amortization of debt discount over the term of the Bridge Notes. The debt discount relates to the warrants, embedded derivative, and Common Units issued in conjunction with our Bridge Notes.

Net Income (Loss) Attributable to Non-Controlling Interest

From our inception through March 31, 2018, we consolidated the financial results of our affiliate, electroCore (Aust) Pty Limited. Although we did not have a controlling ownership interest in electroCore (Aust) Pty Limited during that period, we determined that electroCore (Aust) Pty Limited was a variable interest entity, of which we were the primary beneficiary.

Results of Operations

Three months ended March 31, 2018 compared to three months ended March 31, 2017

The following table sets forth amounts from our consolidated statements of operations for the three months ended March 31, 2018 and 2017.

	Three months ended March 31,	
	2018	2017
	(in thousands)	
Consolidated statements of operations:		
Net sales	$ 81.2	$ 116.9
Cost of goods sold	48.9	72.7
Gross profit	32.2	44.2
Operating expenses		
Research and development	2,306.3	1,726.6
Selling, general and administrative	6,824.8	3,059.3
Total operating expenses	9,131.1	4,785.8
Loss from operations	(9,098.9)	(4,741.6)
Interest expense	—	1,040.1
Amortization of debt issuance costs	—	269.2
Change in fair value of warrant liability	245.9	178.0
Change in fair value of derivative instrument related to convertible bridge notes	—	128.1
Interest and other income, net	(109.3)	—
Other	208.1	—
Net loss	(9,443.5)	(6,356.9)
Less: Net income attributable to noncontrolling interest	55.0	—
Net loss attributable to Electrocore, LLC, subsidiaries and affiliate	$ (9,498.5)	$ (6,356.9)

Net Sales

Net sales decreased $35.7 thousand to $81.2 thousand for three months ended March 31, 2018, from $116.9 thousand for the three months ended March 31, 2017. The decrease is primarily due to a reduction in the transaction price related to the cost of voucher program and the co-payment assistance program. Net sales are not recognized for gammaCore units redeemed, or estimated to be redeemed under the Company's voucher program.

Costs of Goods Sold

Cost of goods sold decreased $23.8 thousand to $48.9 thousand for three months ended March 31, 2018, from $72.7 thousand for the three months ended March 31, 2017. The decrease is a result of units dispensed under the voucher program. Units estimated to be dispensed under the voucher program are recognized in selling, general, and administrative expenses, which costs are not recognized in cost of goods sold.

Gross Profit

Gross profit decreased $12.0 thousand to $32.2 thousand for three months ended March 31, 2018, from $44.2 thousand for the three months ended March 31, 2017. This decrease reflects the impact of additional units sold offset by the costs of the voucher and co-payment program, which were subtracted from costs of goods sold for the period.

Research and Development

Research and development expenses increased $0.6 million to $2.3 million for three months ended March 31, 2018, from $1.7 million for the three months ended March 31, 2017. This increase was primarily the result of an increase in headcount and increased compensation expenses related to personnel of $563.0 thousand, an increase in research studies of $200.0 thousand, which was offset by a decrease in other related expenses. We plan to increase our research and development expenses in 2018 to support product development, product enhancements and future clinical studies, to further develop and update our existing technologies and to expand our gammaCore therapy for the treatment of other indications, including additional headache conditions and rheumatology.

Selling, General and Administrative

Selling, general and administrative expense increased $3.7 million to $6.8 million for three months ended March 31, 2018, from $3.1 million for the three months ended March 31, 2017. This increase is primarily a result of increased costs of $1.1 million related to newly hired personnel, increased consulting expense of $1.1 million, increased professional fees of $0.5 million, increased training costs of $0.4 million, increased third party valuation costs of $0.1 million and an increase in other related expenses.

Interest Expense

Interest expense for the three months ended March 31, 2017 was $1.0 million, which is primarily due to interest incurred on the outstanding Bridge Notes as well as amortization of the debt discount. There was no interest expense for the three months ended March 31, 2018 as a result of the conversion of the Bridge Notes into Series B Preferred Units in August 2017.

Amortization of Debt Issuance Costs

Amortization of debt issuance costs, which relate to the Bridge Notes issued during 2017 and 2016, was $269.2 thousand for three months ended March 31, 2017. There was no amortization of debt issuance costs for the three months ended March 31, 2018 as a result of the conversion of the Bridge Notes into Series B Preferred Units in August 2017. The debt issuance costs were amortized on a straight-line basis over the term of the Bridge Notes.

Change in Fair Value of Warrant Liability and Derivative Instrument related to Convertible Bridge Notes

The change in fair value of the warrant liability is based on revaluation of the warrants during the three months ended March 31, 2018. The effect of the revaluation of the warrant liability for the three months ended March 31, 2018 was a change of $245.9 thousand compared to a change of $178.0 thousand for the three months ended March 31, 2017. The effect of the revaluation of the derivative instrument was $128.1 thousand for the three months ended March 31, 2017. There was no liability associated with the derivative instrument as of March 31, 2018 as a result of the conversion of the related Bridge Notes into Series B Preferred Units in August 2017.

Interest and Other Income, Net

Interest and other income, net was $109.3 thousand for the three months ended March 31, 2018, which resulted from return on our debt securities and other investments available for sale. We had no debt securities or other investments available for sale as of March 31, 2017 and, as a result, there was no interest and other income, net for the three months ended March 31, 2017.

Other

Other expense includes, among other expenses, our best estimate of the costs expected to be incurred in connection with a lawsuit brought by a financial advisor seeking additional compensation in connection with our Series B Preferred Unit financing.

Net Income Attributable to Non-Controlling Interest

Net income attributable to non-controlling interest increased to $55.0 thousand for the three months ended March 31, 2018, from $0 for the three months ended March 31, 2017. This increase is due to increased income related to our joint venture entity in Australia.

Net Loss Attributable to Electrocore, LLC, subsidiaries and affiliate

Net loss attributable to Electrocore, LLC, subsidiaries and affiliate increased by $3.1 million to $9.5 million for the three months ended March 31, 2018, from $6.4 million for the three months ended March 31, 2017. The increase is primarily due to the items described above.

Year ended December 31, 2017 compared to year ended December 31, 2016

The following table sets forth amounts from our consolidated statements of operations for the years ended December 31, 2017 and 2016.

	Years ended December 31,	
	2017	2016
	(in thousands)	
Consolidated statements of operations:		
Net sales	$ 811.5	$ 254.1
Cost of goods sold	518.6	123.7
Gross profit	292.9	130.4
Operating expenses		
Research and development	7,830.9	7,971.3
Selling, general and administrative	18,106.6	7,169.3
Total operating expenses	25,937.5	15,140.6
Loss from operations	(25,644.6)	(15,010.2)
Interest expense	6,295.9	234.4
Net loss on settlement of convertible bridge notes	3,868.8	—
Amortization of debt issuance costs	827.3	536.9
Interest and other income, net	(99.0)	—
Change in fair value of warrant liability	(861.8)	—
Change in fair value of derivative instrument related to convertible bridge notes	348.2	—
Other	4.9	—
Net loss	(36,028.9)	(15,781.5)
Less: Net loss attributable to noncontrolling interest	(236.4)	(44.1)
Net loss attributable to Electrocore, LLC, subsidiaries and affiliate	$(35,792.5)	$(15,737.4)

Net Sales

Net sales increased $0.5 million to $0.8 million for the year ended December 31, 2017, from $0.3 million for the year ended December 31, 2016. This increase was primarily due to increased sales resulting from the establishment of our gammaCore product registry in the United States, as well as increased sales in Europe.

Costs of Goods Sold

Cost of goods sold increased $0.4 million to $0.5 million for the year ended December 31, 2017, from $0.1 million for the year ended December 31, 2016. This increase was due to an increase in the number of gammaCore units sold, and increased direct labor and overhead costs per unit as a result of additional staff required to assemble more units.

Gross Profit

Gross profit increased $0.2 million to $0.3 million for the year ended December 31, 2017 from $0.1 million for the year ended December 31, 2016. This increase was due to an increase in the number of gammaCore units sold, offset slightly by an increase of assembly cost per unit.

Research and Development

Research and development expenses decreased $0.2 million to $7.8 million for the year ended December 31, 2017 from $8.0 million for the year ended December 31, 2016. The decrease was the result of an increase of expenses related to the proprietary data warehouse development costs and associated software for gammaCore data collection of $1.2 million, offset by decreases in costs of manufacturing of $0.9 million, and other related costs of $0.5 million.

Selling, General and Administrative

Selling, general and administrative expense increased by $10.9 million to $18.1 million for the year ended December 31, 2017 from $7.2 million for the year ended December 31, 2016. This increase is primarily a result of increased personnel costs of $1.4 million related to newly hired personnel, increased legal and compliance costs of $0.6 million, increased costs of market preparation, medical education, materials, samples, studies and travel of $3.6 million, and increased costs of $4.2 million related to consultants and service providers associated with the anticipated commercial launch of gammaCore and gammaCore Sapphire.

Interest Expense

Interest expense increased by $6.1 million to $6.3 million for the year ended December 31, 2017 from $0.2 million for the year ended December 31, 2016. This increase is primarily due to the issuance of additional Bridge Notes in 2017 of $19.9 million and the related amortization of debt discount as well as interest incurred on the Bridge Notes. The Bridge Notes and any related accrued interest were converted to Series B Preferred Units in August 2017.

Net Loss on Settlement of Convertible Bridge Notes

Upon the conversion of the Bridge Notes into Series B Preferred Units, we incurred a loss on the settlement of $3.9 million in the year ended December 31, 2017. This loss was calculated as the difference between the Series B Preferred Units issued (and the related warrants and Common Units issued in conjunction with the Bridge Financing), and the carrying value of the settled Bridge Notes (which includes the related debt discount and discount for debt issuance costs), accrued interest, and the embedded derivative liability. There was no net loss on settlement for the year ended December 31, 2016 since all Bridge Notes were converted in August 2017.

Amortization of Debt Issuance Costs

Amortization of debt issuance costs, which relate to the Bridge Notes issued during 2017 and 2016, increased by $0.3 million to $0.8 million for the year ended December 31, 2017 from $0.5 million for the year ended December 31, 2016. These debt issuance costs were amortized on a straight-line basis over the term of the Bridge Notes that we issued in fiscal years 2017 and 2016. This increase was driven

by the additional Bridge Notes that were issued in 2017 and the full amortization of the remaining debt issuance costs as a result of the conversion of the debt to Series B Preferred Units in August 2017.

Change in Fair Value of Warrant Liability and Derivative Instrument related to Convertible Bridge Notes

The change in fair value of the warrant liability and derivative instrument is based on revaluation of those instruments occurring during the year ended December 31, 2017. Revaluation of the warrant liability and the liability associated with the derivative instrument was immaterial during the year ended December 31, 2016.

Net Loss Attributable to Non-Controlling Interest

Net loss attributable to non-controlling interest increased by $192.3 thousand to $236.4 thousand for the year ended December 31, 2017 from $44.1 thousand for the year ended December 31, 2016. The increase is due to losses related to our joint venture entity in Australia.

Net Loss Attributable to Electrocore, LLC, subsidiaries and affiliate

Net loss attributable to Electrocore, LLC, subsidiaries and affiliate increased by $20.1 million to $35.8 million for the year ended December 31, 2017 from $15.7 million for the year ended December 31, 2016. The increase is primarily due to the items described above.

Liquidity and Capital Resources

We have financed our operations to date primarily through the sale of our equity securities, including the issuance of equity securities upon the conversion of our convertible promissory notes, term loan and exercise of warrants. Historically, cash outflows have primarily been associated with cash used for operating activities such as the expansion and support of our sales and marketing infrastructure, increased research and development activities, and other working capital needs. As of March 31, 2018, we had cash and cash equivalents of $1.5 million, and debt securities and other investments available for sale of $25.2 million, and as of December 31, 2017 we had cash and cash equivalents of $13.2 million, and marketable securities of $24.0 million. Cash in excess of immediate requirements is invested with a view to liquidity and capital preservation. Currently, our cash and cash equivalents, and debt securities and other investments available for sale, are held in cash, money market bank accounts and treasury notes, all of which have original maturities of less than 90 days.

Until we can generate a sufficient amount of cash from operations, we expect to finance future cash needs through public or private equity or debt offerings. Additional capital may not be available on reasonable terms, if at all. If we are unable to raise additional capital in sufficient amounts or on terms acceptable to us, we may have to significantly scale back our operations or delay, scale back or discontinue the continuing development of gammaCore. If we raise additional funds through the issuance of additional debt or equity securities, it could result in dilution to our existing unitholders and increased fixed payment obligations, and these securities may have rights senior to those of our common units. If we incur indebtedness, we could become subject to covenants that would restrict our operations, such as limitations on our ability to incur additional debt, limitations on our ability to acquire, sell or license intellectual property rights and other operating restrictions that could adversely impact our ability to conduct our business. Any of these events could significantly harm our business, financial condition and prospects.

Cash Flows

The following table sets forth the significant sources and uses of cash for the periods noted below:

	Three months ended March 31,	
	2018	2017
	(unaudited; in millions)	
Net cash (used in) provided by		
Operating activities	$ (9.7)	$ (4.3)
Investing activities	(1.4)	—
Financing activities	(0.5)	4.2

Operating Activities

Net cash used in operating activities was $9.7 million for the three months ended March 31, 2018, compared to $4.3 million for the three months ended March 31, 2017. This increase in net cash used in operating activities of $5.4 million was associated with net changes in working capital and an increase in net loss of $3.1 million, which was the result of our increase in expenditures for selling, general and administrative items, including those related to our co-payment and voucher program.

Investing Activities

Net cash used in investing activities was $1.4 million for the three months ended March 31, 2018 compared to $0 for the three months ended March 31, 2017 and reflects the net investment activity of $1.3 million and the purchase of additional property and equipment of $0.1 million.

Financing Activities

Net cash used in financing activities was $0.5 million for the three months ended March 31, 2018, which was a decrease of $4.7 million from net cash provided by financing activities of $4.2 million for the three months ended March 31, 2017. This decrease was primarily the result of no financing activities during the first quarter of 2018, as well as the deferral of costs incurred for expected future financing.

The following table sets forth the significant sources and uses of cash for the periods noted below:

	Years ended December 31,	
	2017	2016
	(in millions)	
Net cash (used in) provided by		
Operating activities	$ (25.3)	$ (13.2)
Investing activities	(24.1)	—
Financing activities	62.5	9.3

Operating Activities

Net cash used in operating activities was $25.3 million for the year ended December 31, 2017, compared to $13.2 million for the year ended December 31, 2016. This increase in net cash used in operating activities of $12.1 million was associated with net changes in working capital and an increase in net loss of $20.2 million, which was the result of our increase in expenditures for selling, general and administrative items. The changes in working capital reflect the increased inventory associated with our product registry and the anticipated launch of gammaCore as well as net changes associated with the timing of payments. Offsetting uses were non-cash items including the amortization of debt discount and issuance costs of $6.1 million related to the Bridge Notes and the loss on the settlement of Bridge Notes of $3.9 million.

Investing Activities

Net cash used in investing activities was $24.1 million for the year ended December 31, 2017 compared to $0 for the year ended December 31, 2016, and reflects the utilization of cash proceeds from issuance of the Bridge Notes and the sale of the Series B Preferred Units for the purchase of marketable securities.

Financing Activities

Net cash provided by financing activities was $62.5 million for the year ended December 31, 2017 and $9.3 million for the year ended December 31, 2016, an increase of $53.2 million. This increase was primarily the result of the receipt of $19.9 million in net cash proceeds from the issuance of the Bridge Notes as well as $44.5 million in net cash proceeds from the issuance of the Series B Preferred Units.

Capital Resources

As of March 31, 2018, we had cash and cash equivalents of $1.5 million, and debt securities and other investments available for sale of $25.2 million. We believe that the anticipated net proceeds from this offering, together with our existing cash resources, will enable us to fund our operating expenses and capital expenditure requirements through at least June 2019. We have based these estimates on assumptions that may prove to be wrong, and we could exhaust our available capital resources sooner than we expect.

Series A Preferred Units

From March 28, 2013 through September 2016, we received net proceeds of $50.7 million from the sale of Series A Preferred Units at an initial closing and several required milestone closings, several optional milestone closings, as well as from the conversion of certain loan amounts and the exercise of certain related warrants, net of related issuance costs. Investors in the Series A Preferred Unit financings directly or indirectly included the following related parties of ours: Core Ventures II, LLC, or CV II, an entity that holds more than 5% of our outstanding units and in which Joseph P. Errico and Dr. Thomas J. Errico, two of our directors, have a pecuniary interest and for which they serve as managers with voting control; Peter S. Staats, M.D., our Chief Medical Officer and a former director, and Nicholas Colucci, a director, and Kathryn Theofilos, a former director of our company, invested through CV II; Merck Global Health Innovation Fund, LLC, or GHI, an entity for which one of our directors, David M. Rubin, serves as a Managing Director, and which owns greater than 5% of our outstanding units; and James L.L. Tullis, and the Tullis Opportunity Fund II, or TOP II, an entity in which Mr. Tullis, one of our directors, has a pecuniary interest and for which he serves as the managing partner of its general partner.

Term Loans

On December 22, 2015, Pacific Western Bank loaned us $1.25 million pursuant to a Loan and Security Agreement, which also provided for three additional term loans aggregating $6.25 million, available at various dates through June 2017. In connection with this loan, we issued 66,177 warrants to Pacific Western Bank to purchase our Series A Preferred Units at an exercise price of $0.85 per Unit. The warrants expire on December 22, 2025. In May 2016, the Company repaid the $1.25 million term loan balance in full and the Loan and Security Agreement was terminated.

On December 22, 2015, CV II also loaned us $1.25 million pursuant to a Loan and Security Agreement. In connection with this loan, we issued 66,177 warrants to CV II expiring on December 22, 2025 to purchase our Series A Preferred Units at an exercise price of $0.85 per unit. Pursuant to the terms of this loan, CV II elected to convert the loan of $1.25 million and related accrued interest of $49.9 thousand into approximately 1.5 million Series A Preferred Units in two installments in March 2016 and September 2016 at a price per unit of $0.85.

Bridge Note Financing

From September 2016 through June 2017, we issued an aggregate of $25.6 million of Bridge Notes to existing and new investors. The Bridge Notes accrued interest at an annual interest rate of 10% and had a maturity date one year from the date of issuance. Each Bridge Note was originally convertible into the equity securities issued in a subsequent equity financing that raised not less than $8.0 million, or a Qualified Equity Financing, at a 10% discount to the price of the equity securities issuable in the Qualified Equity Financing. The Bridge Notes were also convertible, at the option of the investors into Series A Preferred Units at $0.85 per Unit.

Each purchaser of a Bridge Note also received warrant coverage of 20% of the principal amount of its Bridge Note. The Bridge Note warrants are exercisable from the date of the issuance of the Qualified Equity Financing until June 29, 2021 and entitle each holder to purchase an amount of securities issued in the Qualified Equity Financing equal to 20% of principal amount of the Bridge Notes purchased by each such investor divided by the price of the Qualified Equity Financing. The exercise price is equal to the Qualified Equity Financing price. Upon the closing of our Series B Preferred Unit financing in August 2017, the outstanding Bridge Note warrants became exercisable for 7.7 million Series B Preferred Units with an exercise price of $0.70 per unit.

In September 2016 the terms of the Bridge Note Financing were amended to provide that, in addition to a Bridge Note and warrant, future bridge investors, depending on the purchaser and amount invested, would receive up to two common units for each dollar of principal amount of Bridge Note purchased.

From December 2016 to June 2017, as compensation for placing Bridge Notes with investors in the principal amount of $12.3 million, our placement agents received cash of $1.2 million, 5.4 million common units, and 1.6 million warrants to purchase Series B Preferred Units at an exercise price of $0.70 per unit. Investors in the Bridge Notes financing included related parties as described in “Certain Relationships and Related Party Transactions.”

Series B Preferred Units

In 2017, we issued and sold at a price of $0.70 per unit, in serial closings, $73.6 million of our Series B Preferred Units, inclusive of the automatic conversion of $25.6 million of our Bridge Notes plus $1.1 million of accrued and unpaid interest thereon. In connection with such closings, we issued to investors in such closings warrants for the purchase of 35.5 million Common Units at an exercise price of $1.25 per Common Unit. In connection therewith, we also issued to our financial advisors warrants for the purchase of 2.7 million Common Units at an exercise price of $0.70 per Common Unit, and warrants for the purchase of 0.3 million Series B Preferred Units at an exercise price of $0.70 per Series B Preferred Unit. Investors in the Series B Preferred Unit financings included related parties as described in “Certain Relationships and Related Party Transactions.”

Contractual Obligations

In the normal course of business, we enter into obligations and commitments that require future contractual payments. The commitments result primarily from lease for office space and leased equipment. The following table summarizes our contractual obligations and commercial commitments as of December 31, 2017:

	Less than 1 year	1 to 3 years	3 to 5 years	More than 5 years	Total
Lease Rental Payments	$ 552,524	$1,687,764	$195,437	$ —	$2,435,725

The table above reflects only payment obligations that are fixed and determinable based on our current agreements. Our operating lease commitment relates to the facility leased for our corporate headquarters in Basking Ridge, New Jersey.

Off-Balance Sheet Arrangements

We did not have during the periods presented, and we do not have any off-balance sheet arrangements, as defined in the rules and regulations of the SEC.

Internal Control Over Financial Reporting

In connection with the audit of our consolidated financial statements for the years ended December 31, 2017 and 2016, we identified a material weakness in our internal control over financial reporting related to the accounting for complex transactions. For additional information, see the "Risk Factors—Risks Related to Our Common Stock and This Offering—We have identified a material weakness in our internal control over financial reporting. If we are unable to remediate this material weakness, or if we experience additional material weaknesses in the future, we may not be able to accurately or timely report our financial condition or results of operations and investors may lose confidence in our financial reports and the market price of our common stock could be adversely affected."

Quantitative and Qualitative Disclosures About Market Risk

We develop our products in the United States and sell those products into more than four countries. As a result, our financial results could be affected by factors such as changes in foreign currency exchange rates or weak economic conditions in foreign markets. Most of our sales in Europe are denominated in the U.S. dollar and Euro. As our sales in currencies other than the U.S. dollar increase, our exposure to foreign currency fluctuations may increase. In addition, changes in exchange rates also may affect the end-user prices of our products compared to those of our foreign competitors, who may be selling their products based on local currency pricing. These factors may make our products less competitive in some countries.

If the U.S. dollar uniformly increased or decreased in strength by 10% relative to the currencies in which our sales were denominated, our net income would have correspondingly increased or decreased by an immaterial amount for the three months ended March 31, 2018.

Our exposure to market interest rate risk is confined to our cash and cash equivalents and debt securities and other investments available for sale. As of March 31, 2018, we had cash and cash equivalents of $1.5 million, and debt securities and other investments available for sale of $25.2 million. The goals of our investment policy are preservation of capital, fulfillment of liquidity needs and fiduciary control of cash and investments. We also seek to maximize income from our investments without assuming significant risk. To achieve our goals, we may maintain a portfolio of cash equivalents and investments in a variety of securities of high credit quality. The securities in our investment portfolio, if any, are not leveraged, are classified as either available for sale or held-to-maturity and are, due to their very short-term nature, subject to minimal interest rate risk. We currently do not hedge interest rate exposure. Because of the short-term maturities of our cash equivalents, we do not believe that an increase in market rates would have any material negative impact on interest income recognized in our statement of operations. We have no investments denominated in foreign currencies and therefore our investments are not subject to foreign currency exchange risk.

All of the potential changes noted above are based on sensitivity analyses performed on our financial position as of March 31, 2018.

Critical Accounting Policies and Estimates

The preparation of our financial statements are in accordance with GAAP . We are required to make estimates and assumptions that affect the reported amounts of assets and liabilities as of the date of the consolidated financial statements, the reported amounts of net sales and expenses during the reporting periods and the related disclosures in the consolidated financial statements. We believe that the following

accounting policies described in Note 2: “Summary of Significant Accounting Policies” in the audited consolidated financial statements included elsewhere in this prospectus, are critical because they involve a higher degree of judgment and uncertainty. As a result, these accounting policies could materially affect our financial statements.

On an ongoing basis, we evaluate these estimates and judgments based on historical experiences and various other factors that are believed to reflect the current circumstances. While we believe our estimates, assumptions and judgments are reasonable, they are based on information presently available. Actual results may differ significantly from these estimates due to changes in judgments, assumptions and conditions as a result of unforeseen events or otherwise, which could have a material impact on our financial position and results of operations.

Revenue Recognition

We operate in one reportable segment and all of our net sales are derived from sales of our gammaCore product, net of specialty pharmaceutical distribution discounts. Products are sold to a specialty pharmaceutical distributor on a per unit wholesale acquisition cost basis. We recognize revenue upon transferring product to our customer FOB destination. Transfer of control is deemed to occur when we have transferred physical possession of the product FOB destination, the customer has accepted the product and has legal title and significant risks and rewards of ownership, and we have present right to payment.

In the audited consolidated statements of operations for the years ended December 31, 2017 and 2016, revenue is presented under ASC Topic 605, *Revenue Recognition*. Under this basis, revenue is recognized when the following criteria are met: persuasive evidence of an arrangement exists, the customer assumes ownership and risk of loss, the sales price is fixed or determinable, and collection is reasonably assured. Accordingly, the Company recognized revenue when the delivery of the product was completed.

Effective January 1, 2018, we adopted ASC Topic 606, *Revenue from Contracts with Customers*. Under this basis, revenue is recognized when an entity transfers control of promised goods to a customer in an amount that reflects the consideration the entity is entitled to receive in exchange for those goods. Indicators that control has transferred include (1) the Company has a present right to payment for the product, (2) the Company has transferred the physical possession of the product, (3) the customer has legal title to the product, (4) the customer has significant risks and rewards of ownership and (5) the customer has accepted the product. The Company determined that, like under ASC 605, revenue is recognized when the delivery of the product is completed.

We adopted ASC 606 using the full retrospective method. The adoption did not result in material impacts to our historical financial statements and no adjustments were made to present the unaudited consolidated financial statements for the three months ended March 31, 2017.

Under ASC 606 the vouchers issued under our voucher program, which began in February 2018 represent consideration payable to our specialty pharmaceutical distributor’s customer, the specialty pharmacy. This voucher program, provides new patients with a one time, 31 days of therapy at no charge. As a result, vouchers are accounted for as a reduction in transaction price. Accordingly, the Company excludes from revenue the number of vouchers redeemed in the period and estimates of the number of vouchers to be redeemed. The corresponding costs associated with the vouchers are recorded as promotional expenses within selling, general and administrative expenses. Variable consideration estimates were made using the expected value amount method, which is appropriate when there are limited outcomes of variable consideration. In this case, vouchers are either redeemed, or they are not redeemed. For the three months ended March 31, 2018, $169.7 thousand of vouchers were redeemed and $124.7 thousand of vouchers were estimated to be redeemed in a subsequent period.

Similarly, our co-payment reimbursement program, which was implemented in July 2017, is also considered variable consideration and each co-payment reimbursement made was accounted for as a reduction in the transaction price, which impacted our net sales for the three months ended March 31, 2018 by $29.0 thousand. The reductions in revenue/costs of these programs are accounted for a promotional items and are included in our selling, general and administrative expenses. The co-payment reimbursement program costs for the year ended December 31, 2017 were immaterial.

At the current time, we do not provide an allowance for returns. Therapy delivered from our gammaCore products and subsequent refills are sold in 31-day increments to our specialty pharmaceutical distributor. Once activated, our products stop delivering therapy after 31 days, at which time the patient discards the product, in the case of gammaCore, and can receive a refill prescription for a new 31-day gammaCore product. In the case of the gammaCore Sapphire, which will begin commercial sales in mid-2018, patients with a prescription refill can receive the next 31 days of therapy via our refill RFID card.

We expense the cost, as incurred, of product damaged as a result of shipping to our specialty pharmaceutical distributors. This expense, historically, has been immaterial. We expect to receive payment on all of our customer receivables within one year and therefore classify all receivables as current assets.

Accounts receivable are net of an allowance for doubtful accounts, which are accounts from which payment is not expected to be received although product was provided and revenue was earned. Receivables are written off when deemed uncollectible. Recoveries of receivables previously written off are recorded when received. To date, we have not provided an allowance for doubtful accounts, based on historical experience.

Inventories

We value inventory at the lower of cost or net realizable value. Cost is determined on a first in first out basis. This policy requires us to make estimates regarding the net realizable value of our inventory, including an assessment of excess or obsolete inventory. We evaluate inventory for excess quantities and obsolescence based on an estimate of the future demand for our product within a specified timeframe, and record an allowance to reduce the carrying value of inventory as determined necessary. The estimates we use for demand are also used for near-term capacity planning and inventory purchasing and are consistent with our revenue forecasts. If our actual demand is less than our forecast demand, we may be required to take additional excess inventory charges, which would decrease gross margin and adversely impact net operating results in the future.

Income Taxes

Currently, we are a limited liability company and therefore tax attributes are passed through to our members. Prior to the closing of this offering, we will convert to a Delaware corporation. We will be taxed at the rates applicable within each jurisdiction in which we will operate and/or generate revenue. The composite income tax rate, tax provisions, deferred tax assets and deferred tax liabilities will vary according to the jurisdiction in which profits arise. Tax laws are complex and subject to different interpretations by management and the respective governmental taxing authorities, and require us to exercise judgment in determining our income tax provision, our deferred tax assets and liabilities and the valuation allowance recorded against our net deferred tax assets.

Research and Development Expenses

We incur significant expenditures on research and development costs, including clinical testing for regulatory purposes and these expenses have been expensed as incurred. Our research and development expenses primarily consist of pilot and pivotal clinical trials relative to current and future therapeutic

indications, product engineering, technical updates, quality assurance and regulatory expenses. Additionally, these expenses are comprised of development and enhancements to our proprietary data warehouse, which maintains patient product serial numbers and interacts in real time, with a device placed at the specialty pharmacy to program RFID refill cards. Research and development expenses also include employee unit-based compensation, consulting services, outside services, materials, and supplies relating to clinical trials including products revisions, data statistics and patient recruitment.

Unit-Based Compensation

We record compensation costs related to our unit-based awards, which currently include profits interests units, based on the fair value of such awards. Compensation expense is recognized over the vesting period during which an employee is required to provide services in exchange for the award. All unit-based awards are expensed on a straight-line basis over the vesting period, which is generally four years.

Measurement of unit-based payment transactions with non-employees is based on the fair value of whichever is more reliably measurable: (a) the goods or services received; or (b) the equity instruments issued. The fair value of the unit-based payment transaction is determined at the earlier of performance commitment date or performance completion date.

The estimation of the fair value of each profits unit grant or issuance on the date of grant involves numerous assumptions by management. Although we calculate the fair value under the Black-Scholes option pricing model, which is a standard option pricing model, this model still requires the use of numerous assumptions, including, among others, the expected life (turnover), volatility of the underlying equity security, a risk free interest rate and expected dividends. We do not have publicly traded equity and have a limited operating history and a lack of company-specific historical and implied volatility data, and therefore we have estimated stock price volatility based upon an index of the historical volatilities of a group of publicly-traded industry peer companies. We have estimated the expected term of our profits interest units using the “simplified” method, whereby the expected life equals the average of the vesting term and the original contractual term of the option. The use of different values by management in connection with these assumptions in the Black-Scholes option pricing model could produce substantially different results.

Determination of the Fair Value of Common Units

As there has been no public market for our common units to date, the estimated fair value of our common units has been supported by third-party valuations with input of a combination of objective and subjective factors that management believe are relevant. Our third-party valuations resulted in valuations of our Common Units of $0.14 per unit as of March 31, 2017, $0.21 per unit as of June 30, 2017, $0.35 per unit as of September 30, 2017, $0.69 per unit as of December 31, 2017 and $0.77 per unit as of March 31, 2018. These third-party valuations were performed in accordance with the guidance outlined in the AICPA’s Accounting and Valuation Guide, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation.*

Our third-party valuation of common units was prepared using the discounted cash flow, or DCF, method, a form of the income approach, to estimate our equity value. In order to estimate equity value, the DCF method uses the estimated present value of future net cash flows for the expected life of the related assets or business, discounted at a rate of return that considers the relative risk of achieving those cash flows, the time value of money and the current stage of development of the business. The total fair value of equity on a marketable basis was then allocated between each class of equity, including common units, preferred units, profits interests, and warrants, applying a hybrid method of allocation. Under the hybrid method, a probability-weighted expected return method and an option pricing model were utilized.

The assumptions underlying these valuations represent management's best estimates, which involve inherent uncertainties and the application of management judgment. As a result, if factors or expected outcomes change and we use significantly different assumptions or estimates, our share-based compensation expense could be materially different.

Following the closing of this offering, the fair value of our common shares will be determined based on the quoted market price of our common shares.

Profits Interests Granted

The following table summarizes by grant period the number of Profits Interests units granted by us during 2017 and the three months ended March 31, 2018 as well as the estimated fair value of such grants as of the grant date:

Three months ended	Number of units	Fair value per underlying unit at date of grant
March 31, 2017	1,022,500	$ 0.020 - 0.082
June 30, 2017	1,820,000	$ 0.020
September 30, 2017	11,170,335	$ 0.014 - 0.500
December 31, 2017	7,193,754	$ 0.029
March 31, 2018	19,112,218	$ 0.020 - 0.140

Bridge Notes and Warrants

The Bridge Notes, common units and warrants to purchase securities in the Qualified Equity Financing (except that, for issuances prior to September 9, 2016, no Common Units were issued in respect thereof) were issued to investors simultaneously in exchange for cash equal to the principal amount of the Bridge Notes. In addition, the Bridge Notes were issued with an embedded automatic conversion feature in which outstanding Bridge Notes are converted to Series B Preferred Units upon occurrence of the Qualified Equity Financing. Each of these separate financial instruments and embedded features require separate accounting.

The proceeds of the bridge financing transactions were required to be allocated to each of the Bridge Notes, Common Units, and warrants. In addition, the embedded option to convert to Series A Preferred Units and the automatic conversion feature to Series B Preferred Units were determined to be embedded derivatives that require bifurcation from the Bridge Notes and separate accounting.

The warrants were evaluated by management and determined to be liability classified. As such, the warrants are measured at fair value with changes in fair value recognized in net income. After subtracting the fair value of the warrants at issuance, the remaining proceeds were allocated to the Bridge Notes (inclusive of the embedded automatic conversion feature) and common units at their relative fair values. The embedded option to convert to Series A Preferred Units and the automatic conversion feature to Series B Preferred Units was then separated from the Bridge Notes and measured at fair value with changes in fair value recognized in net income. The residual amount of proceeds were then allocated to the Bridge Notes.

As a consequence of the allocation of proceeds of the bridge financing to the financial instruments and embedded derivative described above, the Bridge Notes were issued at a discount. This discount has been amortized over the life of the Bridge Notes.

Valuation of Bridge Notes

In order to allocate proceeds of the bridge financing transactions, a determination of the fair value of the common unit, warrant and conversion features of the Bridge Notes was required. We used an alternative discounted cash flow method to value the Bridge Notes. More specifically, we determined the fair value of the straight convertible debt component by discounting principal and interest payments back to the present value at a 45% required rate of return over a dollar-weighted average term of 0.84 years as of December 31, 2016 and as of June 30, 2017 we used a 45% required rate of return over a dollar-weighted average term of 0.17 years. As of December 31, 2016 and June 30, 2017, we determined the fair value of the embedded value of the option's ability to convert at a 10% discount into the next Qualified Equity Financing. For June 30, 2017, this was done by discounting the difference between the aggregate Bridge Note principal plus interest at a 10% discount to the next Qualified Equity Financing and the aggregate Bridge Note principal plus interest at a 45% required rate of return less a 10% discount for lack of marketability times a 95% probability of a Qualified Equity Financing closing prior to the maturity date of the Bridge Note. For December 31, 2016, this was done by discounting the difference between the aggregate Bridge Note principal plus interest at a 10% discount to the next Qualified Equity Financing and the aggregate Bridge Note principal plus interest at a 50% required rate of return less a 10% discount for lack of marketability times an 80% probability of a Qualified Equity Financing closing prior to the maturity date of the Bridge Note. Changes to the assumptions used in such valuation could have a significant impact on these fair values.

Valuation of Derivative Liability Associated with Bridge Notes

The derivative liability relating to the debt component of the Bridge Notes is measured at fair value and is subsequently remeasured at fair value at each reporting date. Changes in the fair value of the derivative liability are recognized as a component of amortization of debt discount and issuance cost in our consolidated statement of operations. We continued to recognize changes in the fair value of the derivative liability embedded in the Bridge Notes until the conversion into the Qualified Equity Financing, which occurred in connection with the conversion of the Bridge Notes into Series B Preferred Units in August 2017.

The embedded option to convert to Series A Preferred Units was deemed to be de minimus. The derivative liability related to the automatic conversion of the Bridge Notes in the Qualified Equity Financing was recorded at fair value using an alternative discounted cash flow method. The derivative liability related to the Bridge Notes was recorded at fair value determined by using an alternative discounted cash flow method. This method of valuation involves using inputs such as a 50% required rate of return, an 80% probability of a Qualified Equity Financing closing prior to the maturity of the Bridge Notes, and an option's ability to convert at a 10% discount into the expected next Qualified Equity Financing. Changes to the assumptions used in such valuation could have a significant impact on the fair value of the derivative liability.

Valuation of Warrant Liability

As discussed above, the warrants to purchase securities in the Qualified Equity Financing were determined to be liability classified. We determined that such warrants potentially obligated us to repurchase or redeem the future Qualified Equity Financing, as the terms of the Qualified Equity Financing was unknown at the time the warrants were issued alongside the Bridge Notes.

The warrants are recorded as a liability on our balance sheet at their fair value and are revalued at each reporting date, with fair value changes recognized as amortization of debt discount and issuance cost in the consolidated statement of operations. We will continue to adjust the liability for changes in fair value until the earlier of the exercise or expiration of the warrants, or the issuance of securities in a Qualified Equity Financing, at which time the classification of the warrants as liabilities or as equity is reassessed. We estimate the fair value of the liability using option pricing models and assumptions that are based on the individual characteristics of the warrants or instruments on the valuation date, including assumptions for expected volatility, expected life, yield, and risk-free interest rate.

Valuation of Series B Preferred Units and Warrants

Beginning in August 2017 through December 2017, we simultaneously issued Series B Preferred Units (which constituted the Qualified Equity Financing noted above), warrants to purchase Series B Preferred Units at $0.70 per unit, warrants to purchase Common Units for $1.25 per unit, and warrants to purchase Common Units for $0.70 per unit. The Series B Preferred Units and warrants were evaluated by management and determined to be equity classified. Both of these instruments require separate accounting and the proceeds of the issuance of the Series B Preferred Units were required to be allocated to each instrument on a relative fair value basis.

In order to allocate proceeds of the issuance of Series B Preferred Units and warrants to purchase Common Units, a valuation of both instruments at fair value was required. We used a hybrid method to value the Series B Preferred Units and warrants to purchase Common Units. Under the hybrid method, a probability-weighted expected return method and an option pricing model were utilized.

Recent Accounting Pronouncements

A description of recently issued accounting pronouncements that may potentially impact our financial position and results of operations is disclosed in Note 2 “Summary of Significant Accounting Policies” in each of our audited and unaudited consolidated financial statements appearing elsewhere in this prospectus.

Emerging Growth Company Status

In April 2012, the JOBS Act was enacted by the federal government. Section 107 of the JOBS Act provides that an emerging growth company can take advantage of the extended transition period for complying with new or revised accounting standards. Thus, an emerging growth company can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected to “opt out” of this provision and, as a result, we will comply with new or revised accounting standards when they are required to be adopted by public companies that are not emerging growth companies.

In addition, as an emerging growth company, we will not be required to provide an auditor’s attestation report on our internal control over financial reporting in future annual reports on Form 10-K as otherwise required by Section 404(b) of the Sarbanes-Oxley Act.

BUSINESS

Overview

We are a commercial-stage bioelectronic medicine company with a platform non-invasive vagus nerve stimulation therapy initially focused on neurology and rheumatology. Our therapy, gammaCore, has pharmacologic effects on the peripheral and central nervous systems, which modulate neurotransmitters and immune function. gammaCore is FDA-cleared for the acute treatment of pain associated with migraine and episodic cluster headache in adults. Based on our clinical data, we are pursuing label expansions for the prevention of migraine, migraine in adolescents and post-traumatic headache, and we are also engaging in clinical development for potential new labeling claims in rheumatology, including Sjôgren's syndrome and rheumatoid arthritis.

gammaCore is the first FDA-cleared, prescription-only vagus nerve stimulation, or VNS, therapy administered in discrete doses using a proprietary, simple-to-use handheld delivery system. Multiple published studies suggest that VNS works through the modulation of neurotransmitters, and has a measurable pharmacologic effect similar to several classes of medications, including selective serotonin reuptake inhibitors, serotonin norepinephrine reuptake inhibitors, GABA analogues, acetylcholine esterase inhibitors and triptan medications, all of which are commonly prescribed. gammaCore activates those fibers in the vagus nerve which are therapeutically relevant for neurotransmitter modulation. This is enabled by our proprietary high-frequency burst waveform that safely and comfortably passes through the skin and stimulates the targeted nerve fibers. Research also indicates that VNS, including gammaCore, modulates the immune system to produce a measurable effect on inflammatory cytokines, as measured in blood samples, comparable to medications that inhibit these cytokines.

Migraine is a debilitating primary headache condition characterized by severe throbbing pain or a pulsing sensation, usually on one side of the head. Migraine affects approximately 12% of the adult population globally and disproportionately impacts women of childbearing years. In the United States, there are approximately 36 million migraine sufferers and, according to the U.S. Pharmacist, a leading pharmacy publication, upwards of 60% of the migraine patient population is dissatisfied with, or has contraindications to, the current standard of care treatments for migraine, such as triptan medications. We estimate the total addressable market for the acute treatment of migraine in the United States in 2018 will be approximately $3.8 billion. Five million migraine sufferers are treated by approximately 1,100 U.S. headache specialists, primarily neurologists.

Cluster headache, or CH, is a series of relatively short but extremely painful headaches that has been described by patients and physicians as one of the most painful conditions in medicine. The suicide rate among these patients is 20 times the U.S. national average, leading to the condition being referred to as the "suicide headache." There are approximately 350,000 CH sufferers in the United States, approximately 225,000 of whom seek treatment each year primarily from the same headache specialists who treat migraine, and we estimate the total addressable U.S. market for the acute treatment of these patients in 2018 is approximately $400 million. We believe the significant unmet need and highly-targeted market of CH represents an ideal entry point for our therapy into the headache market, providing an opportunity to gain relevance with treating clinicians in order to support an expansion into migraine. Prior to gammaCore, there was only one FDA-approved, commercially available acute CH treatment, injectable sumatriptan, and according to a 2016 market research survey, 87% of respondents reported dissatisfaction with the then-available treatment options for CH.

Historically, vagus nerve stimulation, or VNS, required a highly invasive surgical procedure to implant a costly medical device that cannot be removed. Due to these limitations, VNS has only been indicated for the most severe patients. gammaCore stimulates the vagus nerve through an easy-to-use handheld delivery system dispensing therapy on a 31-day prescription basis, enabling access to VNS therapy to a

much broader patient population than previously possible. gammaCore's successor, gammaCore Sapphire, is a rechargeable and reloadable version of our product intended for multi-year use. It is activated on a monthly basis through the input of a unique, prescription-only authorization code, delivered via a radio-frequency identification, or RFID, card. In the future, this authorization code may be delivered through the internet, leveraging the Bluetooth capabilities of the gammaCore Sapphire.

Following the FDA's review and grant of our *de novo* application, in April 2017, our gammaCore therapy was FDA-cleared for commercial sale in the United States for the acute treatment of pain associated with episodic cluster headache, or eCH, in adults. A *de novo* review is a regulatory pathway for products deemed by the FDA to be low to moderate risk, but without an applicable predicate. With the successful completion of our *de novo* review, a new regulatory category was created, which enabled us to seek label expansion for our product through the less burdensome 510(k) pathway, utilizing our own product as the predicate. The new regulatory category for external vagal nerve stimulation resulting from our *de novo* review encompasses the treatment of all headache conditions. gammaCore Sapphire was cleared by the FDA through the 510(k) pathway in December 2017. In January 2018, the FDA cleared our gammaCore therapy as an acute treatment for pain associated with migraine in adults.

In addition to our lead indications for the acute treatment of pain associated with both migraine and eCH in adults, we are also pursuing clinical programs to support label expansion filings for adolescent migraine, headache prevention indications, and the treatment of post-traumatic headache. Table 1 below summarizes our headache-related areas of focus for gammaCore:

Table 1: Our Headache Pipeline

Indication	Preclinical / Pilot Trials	Pivotal Trials	FDA Clearance	Commercial Launch [1]	Key Milestones
Acute Treatment of Episodic Cluster Headache					• FDA clearance April '17 • Commercial registry initiated 3Q '17 • Full commercial launch expected 3Q '18
Acute Treatment of Migraine					• FDA label expansion January '18 • Full commercial launch expected 3Q '18
Migraine Prevention					• Final PREMIUM trial data expected 2Q '18 • 2nd pivotal trial initiation expected 2H '18
Migraine in Adolescents					• Pivotal trial initiation expected 2H '18
Post-Traumatic Headache					• Initial preclinical studies in progress • Pilot trial initiation expected 2H '18

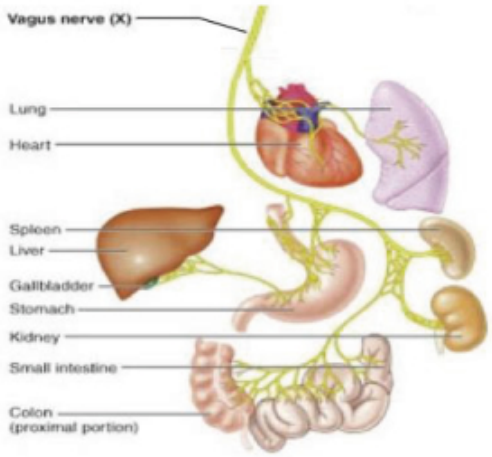
1. The gammaCore product registry for the acute treatment of cluster headache constitutes our initial commercialization efforts for our product. The full product launch is expected in the third quarter of 2018.

Modulation of the peripheral immune system by VNS provides mechanistic support for the study of gammaCore in the treatment of inflammatory disorders. Based on initial positive results from our pilot trials, we expect to initiate a series of pivotal trials designed to support regulatory approvals in multiple rheumatologic conditions, including Sjôgren's syndrome and rheumatoid arthritis.

Background of VNS

The vagus nerve is the largest and most extensive cranial nerve, connecting the brainstem to nearly every organ in the chest and abdomen, including the heart, lungs, liver, stomach, spleen, kidneys, and digestive tract, as shown in Figure 1 below.

Figure 1: The distribution of the vagus nerve to multiple organs



Activation of the vagus nerve causes the release of neurotransmitters, both in the central and peripheral nervous systems, modulating how the brain and peripheral organs function. In the central nervous system, VNS activates areas of the brainstem that release norepinephrine, acetylcholine, serotonin, GABA and other important neurotransmitters. These effects can be used to treat multiple conditions, including epilepsy, depression and headache. The impact of neurotransmitter modulation in the periphery has been shown to have multiple beneficial effects, including the reduction of systemic inflammatory cytokines. VNS is being studied for use in a number of inflammatory conditions, including Sjôgren's syndrome, rheumatoid arthritis and Crohn's disease.

Over the past two decades, the body of scientific evidence in support of VNS in multiple medical conditions has been growing. However, this potential has remained unfulfilled because the therapy could only be delivered using electrodes wrapped around the vagus nerve, connected to a signal generator implanted in the chest wall. To implant these devices, the vagus nerve must be surgically exposed from its anatomical position, entwined with the carotid artery.

Prior to gammaCore, VNS was only accessible to the most refractory patients, who were willing to endure surgery, and payors were forced to spend tens of thousands of dollars prior to determining the efficacy of the post-surgical therapy for those patients. With the clearance of gammaCore, this safe and effective therapy can now be noninvasively self-administered, at a fraction of the initial cost, exponentially expanding its accessibility for the potential treatment of multiple medical conditions.

Preclinical Evidence of gammaCore's Activation of the Vagus Nerve

During the development of gammaCore, we pioneered a series of inventions that enable the comfortable passage of our proprietary therapeutic signal to specifically targeted fibers of the vagus nerve. Confirmation that our delivery technology successfully activates the vagus nerve has been published by independent researchers who performed electromagnetic field modeling demonstrating that our therapy

establishes the necessary charge gradients in the targeted nerve fibers, without depositing a net charge to the overall tissue that would cause significant discomfort.

Confirmation of this electromagnetic field modeling has been conducted in humans, and published by multiple independent research groups. Specifically, these experiments show that gammaCore produces changes in electroencephalography, or EEG, similar to what has been observed with VNS delivered using surgically implanted devices, and does so in a dose-dependent manner, consistent with chemical and biologic pharmaceutical products.

In addition, we have sponsored research by multiple groups of independent scientists to demonstrate that gammaCore activates the critical areas in the brainstem necessary to provide clinically beneficial effects. These studies included both functional magnetic resonance imaging, and magnetoencephalography, both of which showed that gammaCore activates critical areas in the brainstem, including the substantia nigra, the nucleus raphe magnus, or NRM, the periaqueductal gray, or PAG, and the thalamus.

Additional studies showed that when these areas of the brainstem were activated by VNS, including gammaCore, there was a measurable upregulation in the neurotransmitters that modulate pain, including norepinephrine, GABA, acetylcholine, and serotonin. VNS modulates not only the functional state of the central nervous system, but also the activation state of the immune system. VNS, including gammaCore, has also been shown to produce a measureable inhibition of the inflammatory cytokines IL-6, IL -1ß and TNF-a.

Multiple peer-reviewed publications suggest that by upregulating these neurotransmitters and by inhibiting inflammatory cytokines,VNS, including gammaCore, has pharmacologic effects similar to that of selective serotonin reuptake inhibitors, serotonin norepinephrine reuptake inhibitors, GABA analogues, acetylcholine esterase inhibitors, triptans and many anti-inflammatory therapies because they are thought to function through the same or similar mechanisms, and produce similar, measurable changes in neurotransmitter and cytokine levels.

Our Therapy Delivery Platform

Our gammaCore therapy is the first and only treatment that non-invasively activates the therapeutically relevant fibers in the cervical trunk of the vagus nerve. More specifically, our therapy employs proprietary signals that are capable of passing through skin while minimizing the activation of skin pain receptors.

Our therapy is prescription-only, and like medications delivered by metered-dose inhalers, patients self-administer discrete doses using a handheld unit that can be either disposable or reusable. In either case, the therapy is dispensed through a monthly prescription from a specialty pharmacy.

gammaCore Sapphire is the non-disposable, rechargeable and reloadable option for patients requiring therapy on an on-going basis. It is refilled monthly through the input of a unique, prescription-only authorization code, delivered through an RFID card dispensed by mail through our specialty pharmacy distributor. In the future this refill may be dispensed directly through the internet using Bluetooth. We currently expect to commercially launch gammaCore Sapphire in the United States in the third quarter of 2018 and within select foreign markets in the fourth quarter of 2018. In general, we will no longer market the predicate disposable version of our gammaCore product in markets where the gammaCore Sapphire is launched. In select cases, we may continue to use the predicate gammaCore product, for example, there may some clinical studies in which we may still use the original gammaCore product.

Competitive Strengths

We believe the competitive strengths of our company and our novel and proprietary self-administered bioelectronic therapy include:

- ***Innovative bioelectronic medicine approach.*** Our gammaCore therapy uses a proprietary electric signal to safely deliver bioelectronic medicine, which causes targeted pharmacologic-like changes in neurotransmitter expression and in the immune system, without systemic exposure to exogenous chemicals.
- ***Our non-invasive therapy unlocks the long-held potential of VNS.*** VNS therapy can, for the first time, be delivered safely and comfortably through the skin using gammaCore. This eliminates the need for costly, invasive surgery that requires the implantation of a permanent medical device. VNS therapy is no longer reserved for the most refractory patients, and is now a first-line treatment option.
- ***Commercializing our therapy through traditional pharmaceutical channels.*** Our non-invasive delivery modality permits medical professionals to prescribe VNS through the same channel they would any other specialty medication. Refills delivered on a monthly basis enable us to seek widespread commercial payor coverage and reimbursement under a traditional pharmaceutical model. We have agreements in place with commercial payors that we believe, based on our estimates, will provide for reimbursement for gammaCore as a pharmacy benefit for approximately 17 million commercial lives, with such number expected to increase to as many as 45 million lives under those agreements over the next several calendar quarters.
- ***Highly scalable and low investment manufacturing with digital refills***. Our low manufacturing and assembly costs allow us to scale to meet demand with minimal additional investment. Refills through RFID or Bluetooth may offer attractive gross margins.
- ***Potential for rapid label expansion in headache and regulatory approval in additional indications.*** The safety profile of gammaCore enabled us to utilize the *de novo* regulatory pathway through which the FDA established a new therapeutic category: external vagal nerve stimulator for the treatment of headache. Through the 510(k) pathway, we received clearance for our gammaCore therapy for the acute treatment of pain associated with migraine in adults in January 2018. We believe a similar regulatory pathway may be available to us for additional indications in rheumatology.
- ***Broad intellectual property protection.*** Among our key issued patents, we have coverage on using our high-frequency burst signal for treating certain medical conditions until 2031, the low-pass filtering of that signal to ensure safe and comfortable transmission through the skin until 2031, the non-invasive treatment of headache conditions until 2029, and the remote network-enabled communication for the delivery of neuromodulation therapy for a broad range of medical conditions until 2033.
- ***Highly experienced management team***. Our management team includes a diverse group of executives with significant experience in senior positions in the pharmaceutical and medical device industries, including positions at Pfizer, Merck, Novartis, Stryker and Zimmer Biomet. Members of our team have been involved in the launch and marketing of products including Motrin, Celebrex, and the migraine drugs Axert and Maxalt. Our team's pharmaceutical experience in clinical development, sales, marketing and reimbursement, and its medical device experience in research, development and regulatory affairs, allow us to pursue our strategy and growth plans.

Our Strategy

Our goal is to be a leader in bioelectronic medicine by using our proprietary non-invasive VNS platform therapy to deliver better patient outcomes. The key elements of our strategy include:

- ***Drive acceptance of our gammaCore products as a leading headache therapy, introducing it in cluster headache and expanding into migraine.*** We plan to establish gammaCore as the first-line treatment option for neurologists when treating eCH patients, who have few alternative treatment options available to them. We will then leverage this position to expand into the broader headache market for migraine in the third quarter of 2018.
- ***Drive reimbursement of our therapy***. We are actively engaging with over 50 national and regional commercial insurance payors in the United States with the goal of securing reimbursement coverage as a pharmacy benefit. To date, we have secured agreements with commercial payors that we believe, based on our estimates, will provide for reimbursement for gammaCore as a pharmacy benefit for approximately 17 million commercial lives, with such number expected to increase to as many as 45 million lives under those agreements over the next several calendar quarters, and are in active clinical review discussions with more than a dozen additional insurance plans covering approximately 120 million additional commercial lives.
- ***Build a leading commercial presence.*** We are establishing a robust commercial capacity, including a specialty distribution channel with a patient-focused concierge service to quickly onboard patients and manage payor interactions. We are expanding our direct sales force to target high prescribing neurology specialists and headache centers that originate the substantial majority of new prescriptions for severe headache patients in the United States. In the first year following our commercial launch into migraine, we expect to be able to target 120 national headache centers and approximately 6,400 physicians.
- ***Rapidly advance our pipeline***. In 2018, we expect to initiate pivotal trials to support potential label expansion in headache, including additional trials in migraine prevention and migraine in adolescents. In 2018, we also expect to initiate our first major trial in rheumatology, a pivotal trial in Sjôgren's syndrome. Over the next 24 months, we anticipate additional sponsored trials will be conducted in both neurology and rheumatology, including in rheumatoid arthritis.

Our Lead Indications in Headache

In January 2018, gammaCore was cleared by the FDA for commercial sale in the United States as an acute treatment for pain associated with migraine in adults. This followed the April 2017 grant of our *de novo* application by the FDA that cleared our gammaCore for commercial sale in the United States for the acute treatment of pain associated with episodic cluster headache, or eCH, in adults. In accordance with our strategy to establish gammaCore as the preferred treatment for neurologists across headache, we initially targeted a high unmet need population in eCH to establish relevance with prescribing clinicians and gain reimbursement from payors. From this position, we are now expanding into the broader headache market, starting with migraine.

CH sufferers experience a series of relatively short but extremely painful headaches that have been described by patients and physicians as one of the most painful conditions in medicine. CH predominantly affects males in their prime earning ages of 20 to 50, with bouts of frequent attacks, known as cluster periods, often occurring every other day, and up to eight times a day. Individual attacks can last from 15 minutes to as long as three hours, with these frequent attacks continuing for a prolonged period. Among CH patients, 85% to 90% experience eCH, with cluster periods, or bouts, lasting from two to 12 weeks, followed by a remission period often cycling into bout twice per year. Chronic CH, or cCH, patients experience no periods of remission or remission periods of less than 3 months in a 12-month period. The suicide rate of CH sufferers is 20 times the U.S. national average, leading to the condition being referred to as the "suicide headache." In the United States, CH affects approximately 350,000 people. There is only one FDA-approved commercially available pharmaceutical option for acute CH treatment, and none for its prevention.

Migraine, the third most common disease in the world, is a debilitating primary headache condition characterized by severe throbbing pain or a pulsing sensation, usually on one side of the head, often associated with nausea and sensitivity to light and sound. Migraine impacts more than 36 million people in the United States, disproportionately affecting women of childbearing years, with peak onset during the adolescent ages of 12 to 16. While migraine sufferers have a number of approved and available treatments, the side effects and incomplete efficacy of these options continues to drive a high level of dissatisfaction with current therapies.

Our first FDA clearance, received following the grant of our *de novo* application, was for the acute treatment of eCH in adults, and is supported by two pivotal trials: our ACT 1 trial, or ACT 1, and our ACT 2 trial, or ACT 2. The primary endpoints of these trials were pain reduction and pain-freedom within 15 minutes of the onset of the attack, respectively. While neither trial reached statistical significance with respect to its primary endpoint in the combined eCH and cCH populations, both trials reached statistical significance (ACT 1; 34.2%; ACT 2; 47.5%; $p<0.01$ in each trial) on the primary endpoint in the eCH cohort.

Our FDA clearance for the acute treatment of migraine in adults is principally supported by our pivotal trial, PRESTO. The primary endpoint of PRESTO was pain-freedom at 120 minutes. While this trial did not reach statistical significance with respect to its primary endpoint, statistical significance was achieved for complete pain relief at 30 minutes (12.7%; $p=0.01$), and maintained at 60 minutes (21.0%; $p=0.02$), and under a repeated-measures analysis, through the full 120-minute period (30.4%; $p=0.01$).

The Limitations of Pharmaceutical Treatment Options in Headache

There is only one FDA-approved commercially available pharmaceutical treatment for the acute treatment of CH, injectable sumatriptan. Patients have typically been limited to fewer than 10 injections per month, primarily due to cost and toxicity. In addition, the technical difficulty of subcutaneously self-injecting a medication during a CH attack may also limit use of this therapy. As a result, patients typically have enough medication to treat, on average, only a fraction of their monthly CH attacks. There are no approved treatments for the prevention of CH, driving patients to use off-label medications, such as lithium, valproic acid and high-dose verapamil, which have unproven efficacy and the potential for significant toxicity, including adverse cardiac events. In a 2016 market research survey of CH patients, 87% of the respondents were dissatisfied with the then-available treatment options.

Although there are more prescription therapies available for migraineurs than CH sufferers, according to the U.S. Pharmacist, a leading pharmacy publication, upwards of 60% of the migraine patient population has reported dissatisfaction with, or has contraindications to, the current standard of care treatments for migraine. These medications include triptans, ergotamines and anti-epileptic medications. Despite the fact that neurologists recognize the limited efficacy of, and the potential for abuse associated with, opioids, they continue to be prescribed at high rates, particularly in emergency departments for the treatment of migraine. Many other primary headache conditions, and secondary headaches, such as post-traumatic headache, have proven refractory to pharmaceutical interventions, presenting a significant unmet need in the market.

Cluster Headache

The Condition. CH sufferers experience a series of relatively short but extremely painful headaches. The clinical criteria for CH define the attacks as frequent, severe, short-duration head and eye socket pain, accompanied by autonomic symptoms, such as sweating, tearing, swelling of the eyelid, and sinus congestion on only one side of the face. CH patients are typically agitated, pacing, moaning and sobbing, and often beat or claw at their heads in desperation.

CH patients, and the physicians who treat them, describe the attacks as one of the most painful conditions in medicine. The prevalence of CH is three times higher in males than in females, and peaks in their prime earning ages of 20 to 50. Attacks can last from 15 minutes to as long as three hours, with these frequent attacks occurring, on average, twice per day. For some, they can occur as many as eight times per day. CH is known as the “suicide headache” because the suicide rate among CH sufferers is a reported 20 times higher than that for the general population in the United States. During attacks, CH patients have been known to harm themselves as a distraction from the excruciating pain.

CH can be either episodic, eCH, or chronic, cCH. eCH sufferers experience alternating periods of attacks and remission lasting weeks or months. cCH sufferers experience extended periods of attacks, occurring without a remission period, or with remissions lasting less than three months, for at least one year.

Prevalence and market size. The estimated prevalence of CH in the United States ranges from 0.1% to 0.2% of the total population, with consensus around 350,000 as the number of affected patients, of which 225,000 patients seek medical treatment annually. eCH patients average approximately four months per year in bout. We estimate the total addressable market for the acute treatment of eCH in the United States in 2018 will be approximately $400 million.

Economic Burden. According to a recent published study in The American Journal of Managed Care, the overall average medical costs for eCH patients over a three-year period exceeded $22,500, compared with $10,140 among non-headache sufferers. Similarly, the overall average pharmacy costs per eCH patient during this period were $8,200, which was nearly double that of the non-headache sufferers. Participants in surveys of sufferers indicate that CH is associated with a large socioeconomic burden. For example, research found that nearly 20% of patients with CH reported loss of employment and approximately 8% are unemployed or receiving disability services due to the disorder.

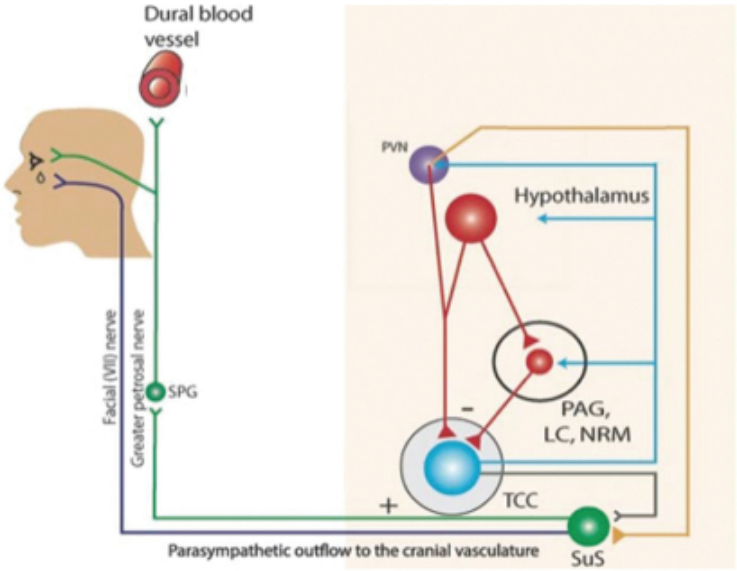
Other Therapies for Cluster Headache. Other than gammaCore, there is only one FDA-approved commercially available therapy for acute treatment for CH, injectable sumatriptan (Imitrex). The side effect profile and cost of Imitrex, however, typically limits patient access to only six to 10 doses per month, which usually enables patients to treat only a small fraction of their attacks each month. Even at this limited access level, the monthly cost of Imitrex for CH patients and their insurance providers averages more than $700. Imitrex use is also limited by the requirement for patients to subcutaneously self-inject, which may be particularly difficult to do while experiencing a CH attack. In a 2016 market research survey of CH patients, 87% of the respondents were dissatisfied with the then-available treatment options.

Preclinical Evidence of VNS Mechanisms of Action in Acute Cluster Headache

It is generally believed that the neural circuit involved in CH includes activation and inhibition of the trigeminal cervical complex, or TCC, shown in Figure 2 below. The TCC is a region of the brainstem associated with pain processing. Activation of facial nerves, including those relaying through the sphenopalatine ganglion, or SPG, activate the TCC. This belief is supported by evidence showing that activation of this pathway can cause CH-like attacks. Inhibition of the TCC is provided by inhibitory neurotransmitters, like serotonin, GABA and norepinephrine, which are released by neurons residing in the PAG, the NRM, and the locus coeruleus, or LC.

Table of Contents

Figure 2: The neural circuit believed to be associated with CH.



(Figure adapted from S. Akerman and P. Goadsby, with permission)

One possible mechanism by which gammaCore acutely treats CH attacks may be through enhancement of inhibitory signals to the TCC. To test this, we sponsored research in which recording electrodes were inserted into the TCCs of rats to measure the effects of VNS on normal activity, or ongoing spontaneous neuronal firing, and activity under pain-simulated conditions, or dural-evoked pain fiber firing, the latter being caused by irritation of the outermost covering of the brain, or dura. As seen in the published graphs in Figures 3 and 4 below, VNS significantly suppressed activity in the TCC in both cases. These data suggest that the strengthening of the inhibition pathways is a mechanism of action for gammaCore.

Figure 3: VNS applied in two doses, separated by five minutes, was able to suppress ongoing spontaneous firing of the neurons in the TCC, by more than 50%, with a duration of effect greater than two hours.

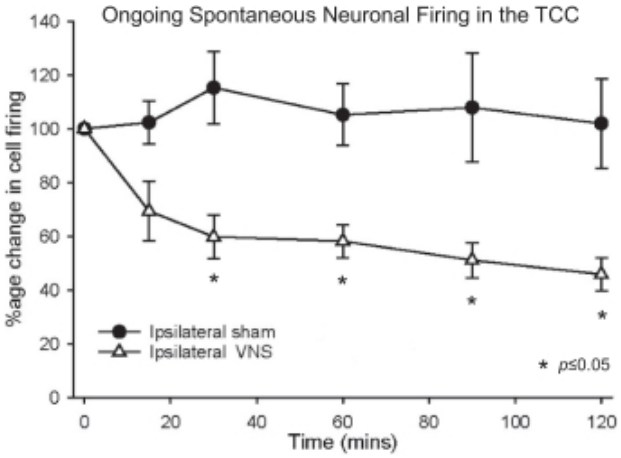
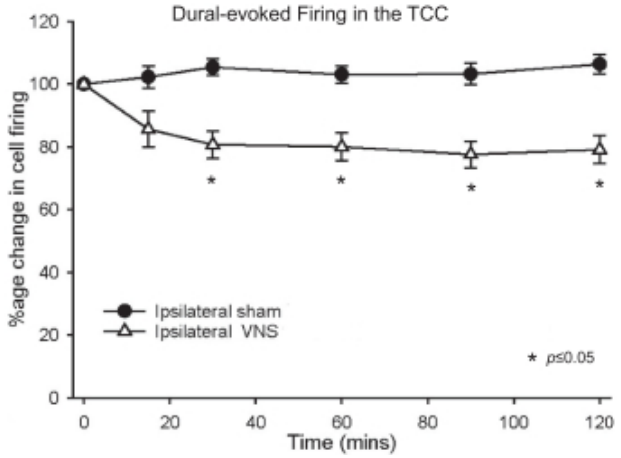


Figure 4: A pair of VNS doses, separated by five minutes was able to suppress firing of the pain fibers in the TCC under pain simulated conditions by approximately 30%, with a stable duration of effect of more than two hours.



Clinical Data of gammaCore as an Acute Treatment for Cluster Headache

We have completed one pilot trial and two parallel pivotal trials examining the efficacy, safety and tolerability of gammaCore for the acute treatment of CH as summarized in Table 2 below:

Table 2: Overview of our CH trials for gammaCore

Trial	Phase	Enrolled Patients (n)	Design	Date Published
Royal Free Hospital Pilot Trial	Pilot	25	Single-site, Open-label	2015
ACT 1	Pivotal	150	Multi-center, randomized, sham-controlled	2016
ACT 2	Pivotal	103	Multi-center, randomized, sham-controlled	2017

Our First Open-Label Trial

We sponsored an open-label trial of gammaCore for the acute treatment and prevention of CH at the Royal Free Hospital, published in 2015. The trial enrolled 25 patients, 19 of whom provided evaluable data. Of these evaluable patients, 11 had cCH and 8 had eCH. Seven of the cCH patients were considered to be drug-refractory and had failed reasonable attempts with multiple different preventative agents. Five patients with cCH provided long-term data for a full 52 weeks. In this trial, an evaluation of the efficacy of the therapy was based on patient-reported estimates of their CH attack frequency.

Fifteen of the 19 evaluable patients in this trial reported an overall improvement in their condition from baseline, with four stating that their condition had remained the same. No patients reported a worsening of their preexisting condition. Results demonstrated a mean improvement of 48% in CH attack frequency. Five of the eleven cCH patients had a one-year extended follow-up, which showed a mean estimated improvement in attack frequency at 26 weeks of 62% and maintenance at 52 weeks of 58%. In regard to acute efficacy, patients in this trial reported that gammaCore aborted attacks within an average time of 11 minutes of initial treatment. The long-term durability of this response was stable in four of the five patients with cCH who reported on their gammaCore use at both 26 and 52 weeks.

No serious adverse events were reported in this trial during and after treatment. Adverse events of mild severity reported in this trial included local discomfort during and after device use and mild skin reactions to the conductive gel.

Our Registration Trials for Acute Treatment of CH – ACT 1 and ACT 2

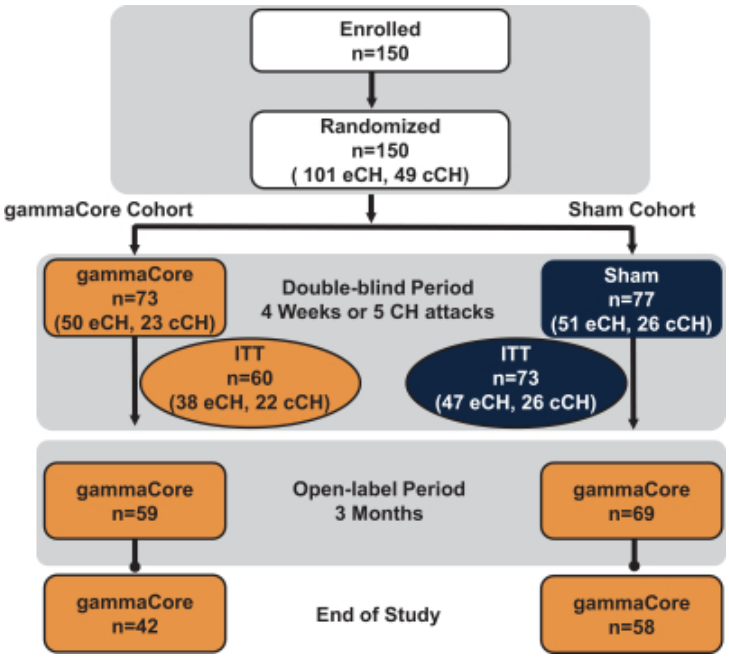
Our first FDA clearance, received following the grant of our *de novo* application, was for the acute treatment of eCH, and is supported by two multi-center, randomized clinical studies, ACT 1 and ACT 2. These trials, in aggregate, enrolled 253 patients, including both eCH and cCH patients. The primary endpoints of these trials were pain reduction and pain freedom within 15 minutes of the onset of the attack, i.e. mild pain or pain-free in ACT 1 and pain-free in ACT 2. Neither trial reached statistical significance with respect to the primary endpoint in the total population, but they did reach statistical significance on the primary endpoint and multiple secondary endpoints in their eCH subpopulation. eCH represents 80-90% of the overall CH population. In ACT 1, our gammaCore therapy demonstrated an ability to reduce pain to mild or pain-free status in eCH patients within 15 minutes of the onset of the attack more than three times as frequently as the sham treatment (gammaCore, 34.2%; sham, 10.6%; $p<0.01$). In ACT 2, which had a more stringent primary endpoint, our gammaCore therapy

demonstrated an even stronger therapeutic effect compared to the sham treatment among eCH patients (gammaCore, 47.5%; sham, 6.2%; $p<0.01$).

Our ACT 1 Trial – gammaCore for the Acute Treatment of Episodic and Chronic Cluster Headache

ACT 1 was a pivotal, randomized, double-blind, sham-controlled prospective trial of gammaCore for the acute treatment of CH. The trial enrolled 150 patients and was conducted at 20 centers in the United States, including academic medical centers and other tertiary headache clinics. ACT 1 was designed to assess the superiority of our gammaCore therapy in comparison to sham treatment and was comprised of two phases: (1) a double-blind phase in which patients were randomized to receive gammaCore therapy or sham treatment for one month or until five CH attacks were treated and (2) an open-label phase in which patients who completed the double-blind phase could subsequently receive three months of our gammaCore therapy. The primary endpoint for the trial was response rate, defined as the proportion of patients who achieved pain relief (pain intensity of 0 or 1 on a 5 point scale) at 15 minutes after treatment initiation for the first CH attack treated. Investigators, patients, and study coordinators were blinded to treatment assignments in the double-blind phase of the trial. The ACT 1 results were published in 2016.

Figure 5: ACT 1 Trial Consort Diagram



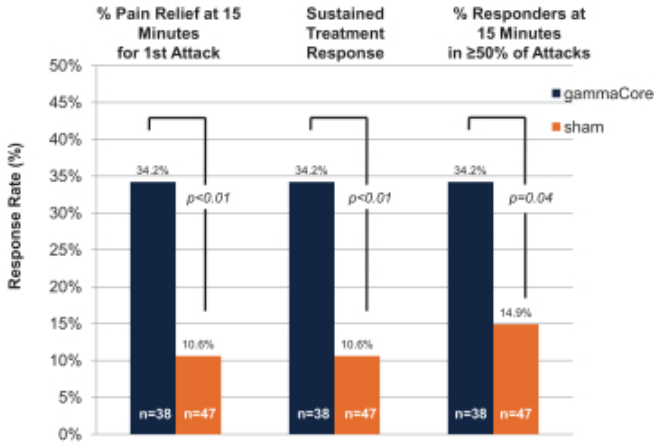
As shown in Figure 5 above, in ACT 1, 150 patients were enrolled and 133 patients met the criteria for the intent-to-treat, or ITT, population (gammaCore, n=60; sham, n=73). Of the 133 patients in the ITT population, 128 patients entered the open-label period, 100 of whom completed the trial. Twenty-eight patients did not complete the open-label period for a variety of reasons, the most common of which was persistence of their CH condition during the treatment period. Demographic and baseline characteristics were similar between the gammaCore and sham cohorts and were consistent with those of a typical CH population. Of the 133 patients in the ITT cohort, most had eCH (85) and the remaining had cCH (48).

Response rates for the primary endpoint in the total ITT population, which includes both eCH and cCH patients, were numerically superior for gammaCore than for sham treatment (gammaCore, 26.7%; sham,

15.1%; *p*=0.1). Additionally, as shown in Figure 6 below, in a predefined analysis of the eCH subpopulation, a significantly higher response rate was demonstrated with gammaCore than with sham (gammaCore, 34.2%; sham, 10.6%; *p*<0.01).

Superior sustained treatment response rates were statistically significant for gammaCore compared with sham among the total population (gammaCore, 26.7%; sham, 12.3%; *p*=0.04), however, this superior response was most pronounced for the eCH subpopulation (gammaCore, 34.2%; sham, 10.6%; *p*<0.01). This observation of strongest clinical benefit in the eCH cohort was also demonstrated with respect to the proportion of patients who were responders at 15 minutes for [3]50% of their treated attacks (gammaCore, 34.2%; sham, 14.9%; *p*=0.04). Results were also significant in the eCH subpopulation for the proportion of those who were pain-free at 15 minutes for [3]50% of treated attacks (gammaCore, 15.8%; sham, 2.1%; *p*=0.04).

Figure 6: Selected Results for eCH Patients in the ACT 1 Trial



No serious adverse events, or SAEs, were attributable to gammaCore in ACT 1. Across all patients, 33% (49/150) had one or more adverse events, or AEs, during the double-blind period (gammaCore, 18; sham, 31). AEs occurred in 35 patients during the double-blind phase, at more than double the rate in the sham cohort than the gammaCore subpopulation. During the open-label period, 33% (42/128) of all patients had one or more AEs. As shown in Table 3 below, the most commonly occurring adverse events relating to the therapy, or ADEs, were application site reactions, all of which were mild, transient, and tended to be self-limiting in nature.

Table 3: Most Commonly Reported ADEs from the ACT 1 Trial

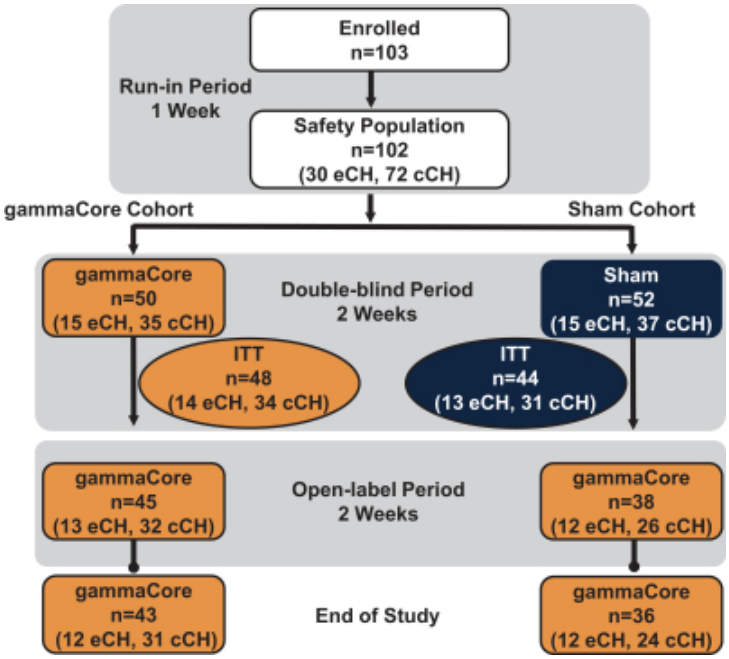
	Double-Blind Phase		Open-Label Phase
	gammaCore (n=73)	Sham (n=77)	gammaCore (n=128)
ADEs Occurring in >1 Subject in Any Treatment Group, No. (%)			
Application site reactions (skin irritation, tingling)	2 (2.7)	16 (20.8)	6 (4.7)
Muscle twitching	8 (11.0)	0	9 (7.0)
Metallic taste	0	7 (9.1)	2 (1.6)

ACT 1 was the first randomized, double-blind, sham-controlled trial evaluating the effects of non-invasive neuromodulation for the acute treatment of CH. As seen in the pre-defined subpopulation analysis, gammaCore demonstrated significant therapeutic benefit across a broad range of endpoints for the eCH subpopulation, including first attack response rate, sustained treatment response rate, the percentage of patients who responded to gammaCore for ³50% of their attacks, and of those, the percentage who were pain-free. These results suggest that response to an initial gammaCore treatment predicts likely response to treatment for subsequent attacks. In addition, among the full study population, the average duration of attack for the first attack treated was reduced among the gammaCore-treated cohort by an average of 9.5 minutes while the sham-treated group reported an attack duration that increased by 12.8 minutes. This difference was statistically significant (p=0.03). Among the eCH subpopulation, this difference was more pronounced, with the gammaCore group experiencing an average decrease in attack duration of 14.4 minutes, while the sham-treated group reported their average attack duration rise by 16.3 minutes (p=0.03). Attack duration has not traditionally been used to quantify clinical meaningfulness of treatments in CH, however, given the extreme nature of the pain associated with these attacks, it is further support for the value of our gammaCore therapy, especially among eCH patients.

Our ACT 2 Trial – gammaCore for the Acute Treatment of Episodic and Chronic Cluster Headache

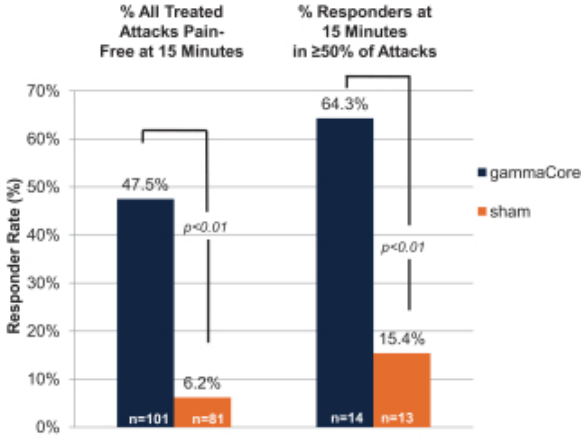
ACT 2 was a pivotal, randomized, double-blind, sham-controlled prospective trial of gammaCore for the acute treatment of eCH and cCH. The trial enrolled 103 patients and was conducted in four European countries at academic medical centers and other tertiary headache clinics. ACT 2 was designed to assess the superiority of our gammaCore therapy in comparison to sham treatment and was comprised of three phases: (1) a one-week run-in period, (2) a two-week, randomized, double-blind period during which patients were treated with either our gammaCore or sham therapy, and (3) a two-week, open-label period in which patients could subsequently receive gammaCore therapy. The primary endpoint for the trial was response rate, defined as the proportion of all attacks that achieved pain freedom at 15 minutes after treatment initiation. Investigators, patients, and trial coordinators were blinded to treatment assignments during the double-blind period. In total, 495 attacks were treated with active gammaCore therapy and 400 with the sham treatment. The ACT 2 trial results were published in 2017.

Figure 7: ACT 2 Trial Consort Diagram



As shown in Figure 7 above, in ACT 2, 103 patients were enrolled, 102 patients met the criteria for the safety population, and 92 patients met the criteria for the ITT population (gammaCore, n=48; sham, n=44). Of the 92 patients in the randomized phase of our ACT 2 trial, 83 entered the open-label period and 79 completed the trial. Demographic and baseline characteristics were similar between the gammaCore and sham cohorts and were consistent with those of a typical CH population. Of all 102 patients in the safety population, most had cCH (71%) and the remaining 29% had eCH. Although eCH occurs more frequently than cCH, we enrolled more cCH patients in the ACT 2 trial because a greater proportion of them are in bout at any given time.

Figure 8: Selected Results for predefined eCH subpopulation in the ACT 2 Trial



As shown in Figure 8 above, consistent with the results from the ACT 1 trial, a predefined subpopulation analysis in ACT 2 demonstrated a higher response rate to gammaCore in the eCH subpopulation than in the cCH subpopulation. In the eCH subpopulation, a higher proportion of treated attacks achieved pain-free status with gammaCore than with sham (gammaCore, 47.5%; sham, 6.2%; $p<0.01$). No treatment difference for this endpoint was seen in the cCH cohort (gammaCore, 4.8%; sham, 12.9%; $p=0.13$) in this trial.

The mean proportion of treated attacks per subject that achieved responder status within 30 minutes was greater with gammaCore than with sham for the total ITT population (gammaCore, 42.7%; sham, 27.6%; $p=0.05$).

As shown in Table 4 below, the proportion of subjects who achieved responder status with statistical significance for ^{3}50% of treated attacks at 15 minutes was higher with gammaCore than with sham in the total ITT population (gammaCore, 39.6%; sham, 13.6%; $p<0.01$) and the eCH subpopulation (gammaCore, 64.3%; sham, 15.4%; $p<0.01$), but was not higher with statistical significance in the cCH cohort (gammaCore, 29.4%; sham, 12.9%; $p=0.11$).

Table 4: Selected Results for the ACT 2 Trial

	Total Population	eCH	cCH
gammaCore	39.6%	64.3%	29.4%
sham	13.6%	15.4%	12.9%
p-value	$p<0.01$	$p<0.01$	$p=0.11$

No SAEs were attributable to gammaCore in ACT 2. Of all patients, 33% (34/102) had one or more AEs during the double-blind phase of the trial. Of the non-serious AEs, 19 patients (gammaCore, 9; sham, 10) experienced one or more treatment-related AEs during the double-blind phase of the trial. As shown in Table 5 below, the most commonly occurring of these AEs were application site reactions, all of which were mild, transient, and tended to be self-limiting in nature.

Table 5: Most Commonly Reported ADEs from the ACT 2 Trial

	Double-Blind Phase		Open-Label Phase
	gammaCore (n=50)	Sham (n=52)	gammaCore (n=83)
ADEs Occurring in >1 Subject in Any Treatment Group, No. (%)			
Application site reactions (irritation, paresthesia, rash)	7 (14.0)	3 (5.7)	2 (2.4)
Muscle pain or twitching	0	1 (1.9)	4 (4.8)

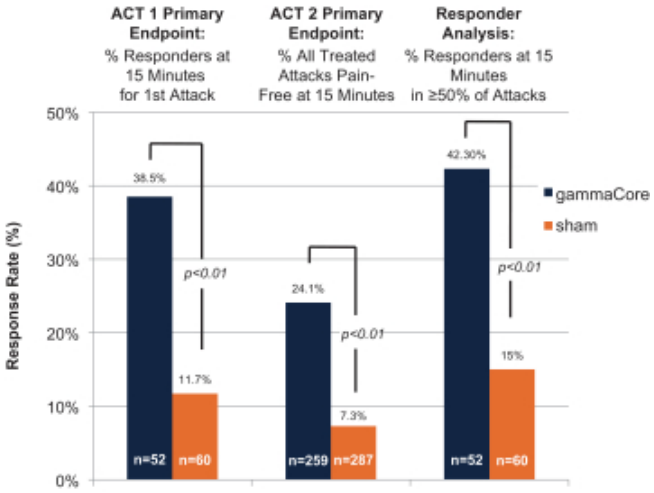
The ACT 2 trial results confirm and extend the findings from ACT 1. ACT 2 demonstrated the significant therapeutic benefit of gammaCore across a broad range of endpoints, including the mean proportion of treated attacks per subject that achieved responder status within 15 minutes across all patients. The greatest clinical benefit was observed in a predefined analysis of the eCH subpopulation, including the proportion of all treated attacks that achieved pain-free status within 15 minutes and 30 minutes. These results suggest that initial response to our gammaCore therapy predicts likely response to treatment for subsequent attacks. As with our ACT 1 trial, gammaCore was well tolerated in ACT 2.

Our Pooled Analysis of ACT1 and ACT2 for the Acute Treatment of Episodic Cluster Headache

To further define the benefit of gammaCore for the acute treatment of eCH, the data from ACT 1 and ACT 2 were pooled to assess the overall response to each trial's primary endpoint, as shown in Figure 9 below. Collectively there were 112 eCH patients and 113 cCH in the pooled data set. Among the 112 patients with eCH, more patients who treated with gammaCore achieved mild or pain-free status at 15 minutes for the first attack treated (the ACT1 primary endpoint) compared with those in the sham cohort (gammaCore, 38.5%; sham, 11.7%; $p<0.01$). Similarly, the proportion of all treated attacks in these eCH subpopulation reaching pain freedom at 15 minutes (the ACT 2 primary endpoint) was greater in the gammaCore cohort compared to the sham cohort (gammaCore, 24.1%; sham, 7.3%; $p<0.01$). Both studies individually met statistical significance on this endpoint (ACT 1: gammaCore, 15%; sham, 6%; $p<0.05$; ACT 2: gammaCore, 48%; sham, 6%; $p<0.05$).

The proportion of these eCH patients who achieved mild or pain-free status at 15 minutes in ³50% of their treated attacks was higher for gammaCore compared to sham (gammaCore, 42.3%; sham, 15.0%; $p=0.01$). These findings are consistent with the findings of each trial individually (ACT 1: gammaCore, 34.2%; sham, 14.9%; $p=0.04$; ACT 2: gammaCore, 64.3%; sham, 15.4%; $p=0.02$).

Figure 9: Selected Results of the Pooled Analysis of the ACT 1 and ACT 2 Trials for eCH Patients



This analysis demonstrated that gammaCore is effective and well tolerated in aborting attacks in eCH, but did not appear to have similar efficacy in cCH. Important advantages over existing treatment options are that gammaCore is easy-to-use and may be applied for as many attacks as a patient experiences per day, without the frequency-of-use restrictions and contraindications associated with other treatments.

Migraine

The Condition. Migraine is a debilitating condition characterized by severe throbbing pain usually on one side of the head, often associated with nausea and sensitivity to light and sound. The pain associated with migraine attacks often has a pulsing quality that is synchronized with heartbeat and is typically worsened by physical activity. According to the International Classification of Headache Disorders, the pain phase of a migraine can last for four to 72 hours. More than two-thirds of sufferers are unable to work or function normally during the pain phase of a migraine attack.

Migraine attacks are characterized by the presence or absence of a preceding aura phase. Aura is a phenomenon associated with neural hyperactivation and synchronized depolarization in the brain, and is

characterized by visual or other functional disturbances. 30% of patients report aura preceding at least a portion of the migraine attacks they experience. Migraines are categorized by the frequency with which they occur. With chronic migraine, affecting 10% of the total migraine population, patients suffer migraine attacks on 15 or more days of the month, on average. With episodic migraine, patients experience 14 or fewer migraine attacks per month.

Prevalence and Market Size. According to the World Health Organization, migraine ranks as the third most common disease in the world and the leading cause of disability among neurological disorders. Migraine will affect approximately 12% of the adult population globally, currently affecting approximately 36 million people in the United States, the majority of whom are women of childbearing years. Population-based studies of insured individuals reveal that, annually, 4.5% of the adult population seeks treatment for primary headache, the vast majority of which is for migraine. In the United States and EU, research has found that the age of first diagnosis of migraine peaks in the early-to-mid teens and the disease continues to persist throughout adulthood for many of these sufferers, demonstrating that it is often a disorder of long duration.

An estimated five million migraine patients in the United States require the care of a headache specialist. These specialists, many of whom also treat CH, comprise the approximately 1,100 physicians who practice in over 120 tertiary care centers in the United States. Although the triptan drug class is the current standard of care for the acute treatment of migraine, according to the U.S. Pharmacist, a leading pharmacy publication, more than 60% of patients have reported dissatisfaction with, or have contraindications to, the current standard of care, such as triptan medications. This dissatisfaction may partly explain the sub-25% penetration rate for available generic triptan medications. Despite these limitations, we estimate that the addressable market for the acute treatment of migraine in the United States in 2018 will be approximately $3.8 billion.

Economic Burden. Over the past several decades, migraine has been associated with persistently greater total annual medical costs. An independent study conducted in 1999 found that migraine sufferers in California had annual total medical expenses two and a half times higher than non-migraine sufferers. A 2011 study conducted by GNS Healthcare and sponsored by us demonstrated consistent results among the nearly 5% of 21 million privately insured patients in the United States who receive diagnosis of migraine annually.

Current Acute Migraine Treatments and Their Limitations. Triptan medications, or Triptans, are a family of tryptamine-based drugs first sold in the 1990s, which account for approximately 80% of the acute treatments prescribed for migraine. Triptans are sold in oral, nasal, and subcutaneous formulations. Through their binding to specific seratonin receptor subgroups, Triptans cause constriction of blood vessels in the outer covering of the brain, or the meninges. This vasoconstrictive activity also affects blood vessels in other areas of the body, including the heart, which accounts for important risks associated with their use, and labeling limitations on the frequency of their use.

Other less commonly prescribed acute migraine treatments include ergotamines and analgesics, including non-steroidal anti-inflammatory drugs, or NSAIDs, acetaminophen and antiemetics. Dihydroergotamine, or DHE, is a grain fungus derivative that, like triptans, is a potent vasoconstrictor. DHE has been used for more than 50 years for the treatment of migraine, but modern physicians rarely prescribe it because of significant side effects. More specifically, ergotamines and triptans are both vasoconstrictors with labels citing the risk of their use in migraine sufferers with risk factors for cardiovascular disease.

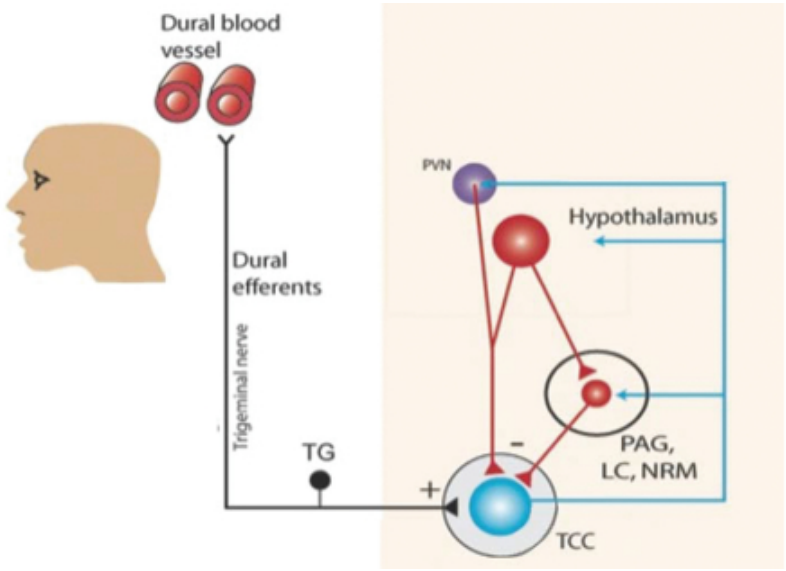
Opioids are often dispensed for migraine attacks in emergency departments; however, in the treatment guidelines referenced by the National Institutes of Health, their use is not recommended for the acute treatment of migraine. Opioid use for migraine is associated with increased disability and health care utilization. The U.S. Centers for Disease Control and Prevention has recognized the growing issue of

opioid misuse, abuse and addiction and officially classified prescription opioid abuse as an epidemic. Data from a 2009 study conducted by the American Migraine Prevalence and Prevention Study suggests that about 16% of migraine patients are current opioid users and 16% of those patients are likely dependent.

Preclinical Evidence of nVNS Mechanism of Action in Acute Migraine

Although the cause of migraine is multifactorial, one validated model, shown in Figure 10 below, involves the activation of nerve fibers in the dura through a mechanism similar to the one previously described for CH. These fibers lie in close proximity to blood vessels passing through the dura, and connect through the trigeminal ganglion to the TCC. Excessive firing of the TCC involves the increased release of the excitatory neurotransmitter glutamate and is associated with migrainous pain. As in the case of CH, this activation is typically opposed by the release of inhibitory neurotransmitters, including serotonin, norepinephrine, and GABA. Migraine pain may be experienced when excessive firing from the TCC exceeds the inhibitory mechanisms, or if the inhibitory mechanisms are not present.

Figure 10: The neural circuit believed to be associated with migraine



(Figure adapted from S. Akerman and P. Goadsby, with permission)

To show the effects of nVNS, we sponsored a preclinical study at Thomas Jefferson University, published in 2014. In this study, animals were sensitized, rendering them allodynic, or sensitive to touch, and susceptible to increased pain when the known migraine trigger, nitroglycerine, or GTN, was administered. Previous research had shown significant increases in glutamate expression in the TCC, specifically in the trigeminal nucleus caudalis from GTN exposure. The results of our study, provided in Figures 11 and 12 below, showed that administration of nVNS simultaneously with, or 90 minutes after GTN was administered, reduced both the pain behavior and the over-expression of glutamate.

Figure 11: Co-administered nVNS prevents the significant increase in glutamate expression triggered by GTN in sensitized animals.

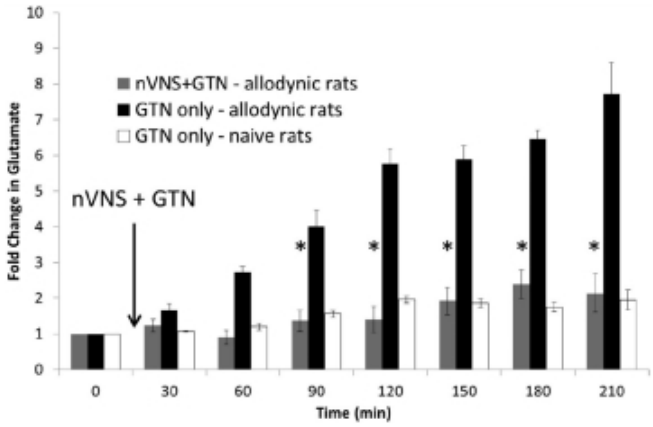
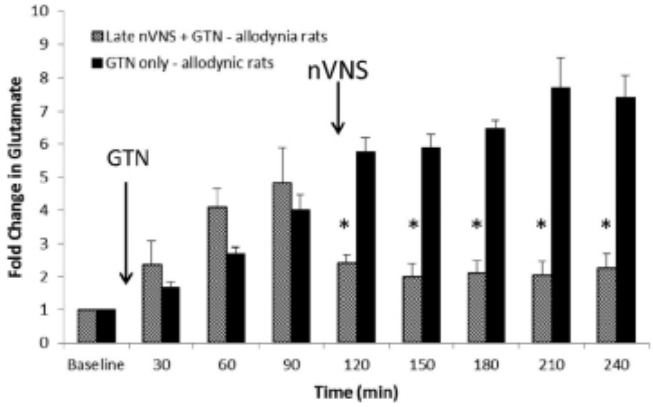


Figure 12: Administration of nVNS, 90 minutes after GTN reduces over-expression of glutamate that occurs in sensitized animals.

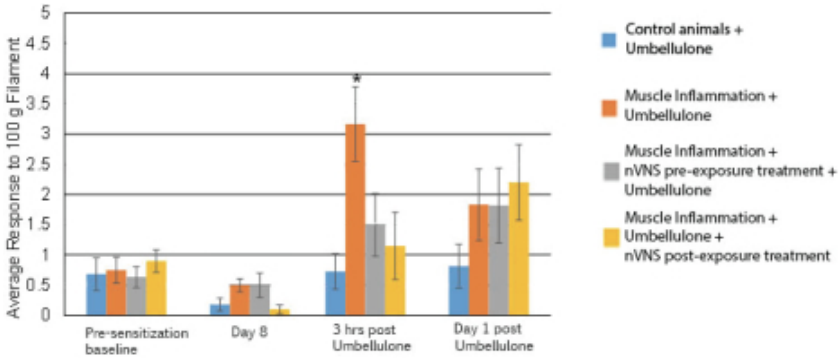


The pulsating character of migraine pain supports the inference of a relationship between activated nerve fibers and blood vessels that are in close proximity with one another. This pulsating feature, typically exacerbated by exercise, led early observers to suspect vasodilation as an underlying cause. As previously mentioned, triptans, which are vasoconstrictors, are the most widely prescribed medications for the acute treatment of migraine. Further, over the past decade, research in headache has included a focus on calcitonin gene-related peptide, or CGRP, which is a peptide released by neurons under a variety of stress conditions. CGRP is the most potent, endogenously produced vasodilator. The administration of exogenous CGRP in sensitized animals and human migraineurs has been shown to trigger pain-related behavior and migraines.

Models of CGRP activity in migraine suggest that neurons releasing CGRP in the TCC result in the activation of pain pathway neurons, leading to acute headache pain. While several stresses can cause the release of CGRP, the inflammatory cytokine tumor necrosis factor alpha, or TNF-a, is known to trigger its synthesis and release from neurons. Heightened expression of TNF-a has been correlated with heightened expression of CGRP as well as its receptors. As previously mentioned, published results of multiple studies show that VNS is capable of suppressing TNF-a in the central nervous system.

To further study the effects of our gammaCore therapy in migraine, and specifically as it relates to CGRP, we sponsored a series of studies in which animals were sensitized by chronic inflammation. These animals experience migraine-like pain upon exposure to a known migraine trigger, umbellulone. The results of this study, as shown in Figure 13 below, demonstrated that nVNS reduces pain responses of sensitized animals relative to that of naïve animals, whether the therapy is delivered before or after the trigger is administered.

Figure 13: Administration of nVNS after umbellulone exposure reduces pain-associated behavior in inflammation-sensitized animals.



In addition to the reduction in pain, nVNS reduced the expression of intracellular biomarkers of inflammation. These biomarkers are associated with an upregulation in TNF-a, and correspondingly, in CGRP synthesis and expression.

Clinical Data in support of gammaCore for Acute Migraine Treatment

We have completed one pilot and one pivotal trial examining the efficacy, safety and tolerability of gammaCore for the acute treatment of migraine headache as summarized in Table 6 below:

Table 6: Overview of Our Acute Migraine Trials for gammaCore

Trial	Phase	Enrolled Patients (n)	Design	Date Published
Acute Treatment	Pilot	30	Open label, single-arm, multiple-attack trial	2014
PRESTO	Pivotal	285	Multi-site, randomized, double-blind, parallel-group, sham-controlled	2017

Our First Open Label Trial in Acute Migraine

We sponsored a multi-center, pilot clinical trial to investigate the use of gammaCore for the acute treatment of migraine headache, published in 2014. The trial was an open-label, single-arm, multiple-attack trial conducted at four headache centers in the United States. Patients were asked to treat up to four acute migraine attacks with gammaCore over a six week period. The trial enrolled 30 patients, 25 of whom were female and 27 of whom treated at least one attack.

Nineteen of the 27 patients treated their first attack at a pain level that was moderate or severe at baseline. Four of these 19 patients (21%) reported being pain free at two hours. Nine of 19 patients

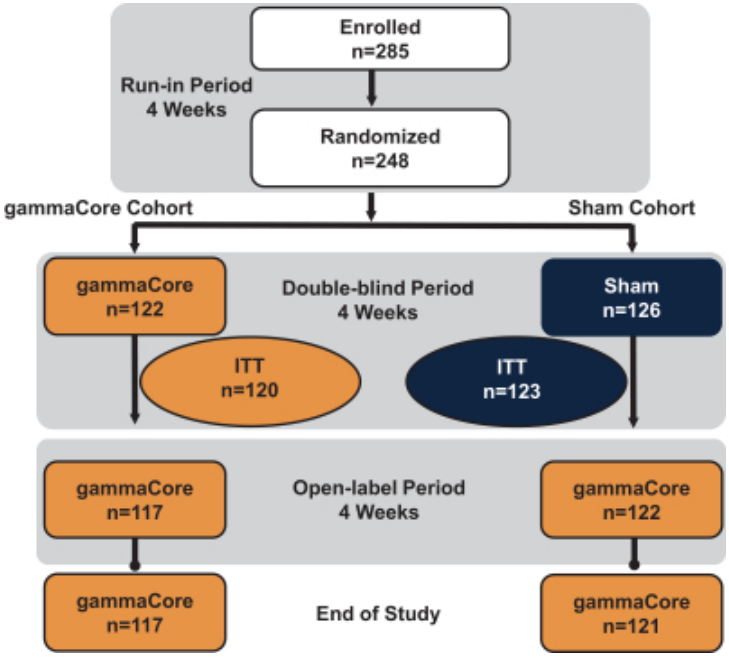
(47%) reported pain relief, defined as mild pain or pain free, at the same time point. The eight remaining patients treated their first attack while at mild pain at baseline, five of whom (63%) were pain free at two hours. Overall, these 27 patients treated 80 migraines, 54 of which were treated with a baseline pain level of moderate or severe. Twelve of 54 attacks (22%) were reported as pain free at two hours, and 23 of 54 attacks (43%) reached pain relief. The remaining 26 attacks were treated at mild pain, and pain freedom was achieved for 10 of these attacks (38%). The efficacy results from this trial are similar to other acute treatments for migraine.

This pilot trial demonstrated gammaCore is well tolerated in patients with acute migraine. Adverse events were of mild severity, transient in duration, and included local discomfort during and after gammaCore use, as well as mild skin reactions to the conductive gel. Based on the results of this trial, the authors noted that gammaCore seemed better tolerated than triptan medications and did not appear to have the cardiovascular or cerebrovascular risks associated with them.

The PRESTO Trial – Our Registration Trial for the Acute Treatment of Migraine

Our PRESTO trial, or PRESTO, was a pivotal, randomized, double-blind, sham-controlled prospective trial of gammaCore for the acute treatment of migraine. The trial enrolled 285 patients and was conducted at 10 centers in Italy, including academic medical centers and other tertiary headache clinics. PRESTO was designed to assess the superiority of our gammaCore therapy in comparison to sham treatment and included three four-week periods: (1) a run-in period; (2) a double-blind period; and (3) an open-label period. Patients treated up to five migraine attacks with gammaCore or sham in the double-blind period and up to five additional attacks with gammaCore in the open-label period. The primary endpoint for the trial was response rate, defined as the proportion of patients who achieved pain freedom at 120 minutes after treatment initiation for the first migraine treated. Investigators, patients, and study coordinators were blinded to treatment assignments in the double blind phase of the trial.

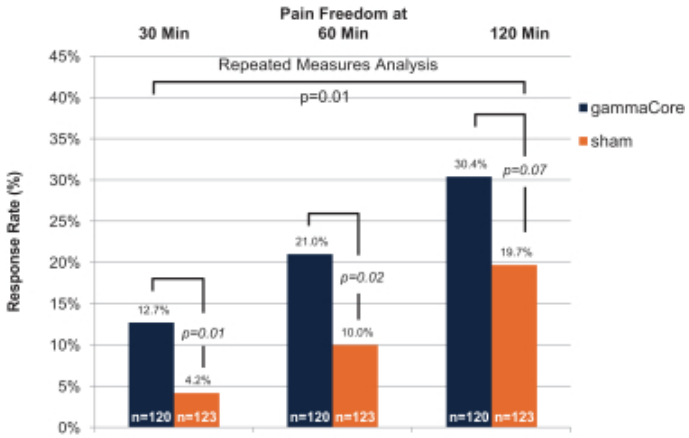
Figure 14: PRESTO Trial Consort Diagram



As shown in Figure 14 above, 285 patients were enrolled into the run-in period of PRESTO, 248 of whom were eligible for randomization into the double-blind period. 37 patients did not randomize, the majority of whom failed to meet the entry criteria for randomization. 243 of the 248 enrolled patients treated at least one attack and represent the ITT population (gammaCore, n=120; sham, n=123). Of the ITT population, 239 entered the open label period, and 238 finished the open label period. Demographic and baseline characteristics were generally well balanced between the gammaCore and sham cohorts, however, clinically relevant trends were observed with respect to preventative medication use and pain level at baseline. A higher proportion of patients in the gammaCore cohort treated their first attack when its intensity was severe.

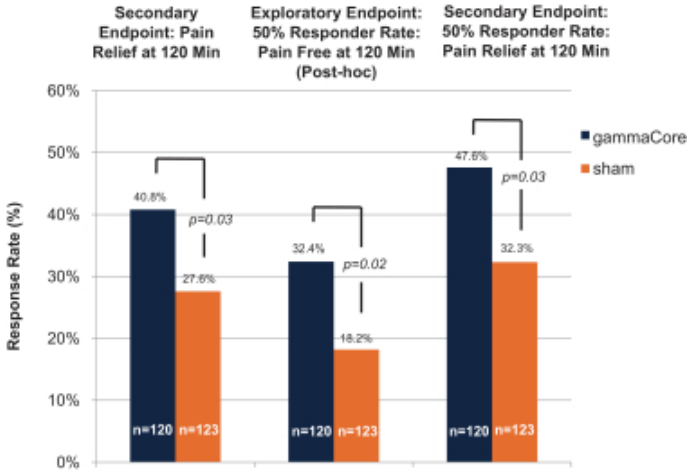
As shown in Figure 15 below, the proportion of patients in the gammaCore cohort who became pain-free after treating the first attack was significantly higher than those who treated with sham at 30 minutes (gammaCore, 12.7%; sham, 4.2%; *p*=0.01) and 60 minutes (gammaCore, 21.0%; sham, 10.0%; *p*=0.02) but not at 120 minutes (gammaCore, 30.4%; sham, 19.7%; *p*=0.07; primary endpoint). A repeated-measures test, recommended by our independent statisticians, examined the inconsistency between the 120-minute finding and the 30- and 60-minute findings and demonstrated the statistical significance of gammaCore's superiority over sham for the pain-free outcome through 120 minutes (odds ratio: 2.3; 95% CI: 1.2, 4.4; *p*=0.01).

Figure 15: Primary Endpoint and Repeated Measures Analysis of the PRESTO Trial for Acute Migraine



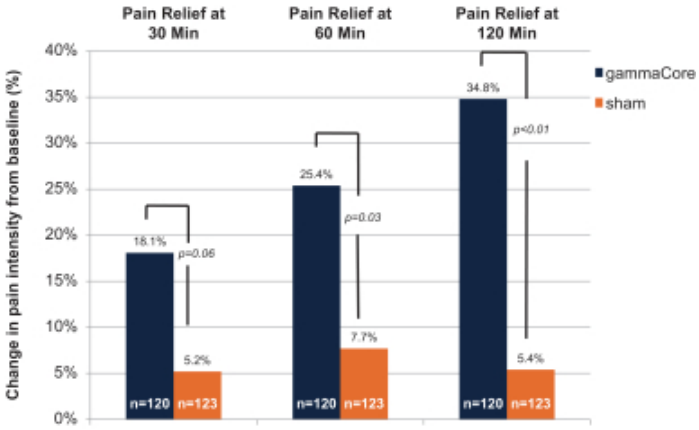
As shown in Figure 16 below, the proportion of patients who achieved pain relief, defined as mild or no pain, at 120 minutes was significantly higher with gammaCore than with sham for the first treated migraine attack (gammaCore, 40.8%; sham, 27.6%; *p*=0.03). The proportion of patients who responded at 120 minutes for ³50% of their attacks was significantly higher with gammaCore than with sham for both pain freedom (gammaCore, 32.4%; sham, 18.2%; *p*=0.02) and pain relief (gammaCore, 47.6%; sham, 32.3%; *p*=0.03).

Figure 16: Selected Secondary and Exploratory Results of the PRESTO Trial for Acute Migraine



As shown in Figure 17 below, mean percentage pain reduction for the first attack was significantly greater with gammaCore than with sham at 60 minutes (gammaCore, -25.4%; sham, -7.7%; *p*=0.03) and 120 minutes (gammaCore, -34.8%; sham, -5.4%; *p*<0.01).

Figure 17: Percent Pain Relief Results of the PRESTO Trial for Acute Migraine



No SAEs were attributable to gammaCore in PRESTO. Of all patients, 18% (45/248) had [31] AE during the trial. As shown in Table 7 below, the most commonly occurring device-related AEs of these were application site reactions, all of which were mild, transient, and tended to be self-limiting in nature. The PRESTO trial demonstrated gammaCore to have a highly favorable tolerability profile.

Table 7: Most Commonly Reported Device-Related ADEs from the PRESTO Trial

	All Study Periods	
	gammaCore (n=122)	Sham (n=126)
ADEs Occurring in >1 Subject in Any Treatment Group, No. (%)		
Application site reactions (discomfort, pain, irritation)	3 (2.5)	7 (4.8)
Dizziness	0	2 (1.6)

Headache Prevention

The grant by FDA of our *de novo* application resulted in a new Class II regulatory category: external vagal nerve stimulator for headache. The establishment of this product category permits us to apply for label expansions through the 510(k) regulatory pathway utilizing our own product as the predicate. It is our intention to seek the expansion of our label for the prevention of both migraine and eCH. As described below, we have run, and continue to conduct, additional clinical studies which may support label expansion for the acute treatment and prevention of other primary and secondary headaches.

Cluster Headache Prevention

As described previously, CH is believed to be the result of stimuli from facial nerves that activate the TCC, and which are opposed by inhibitory neurotransmitters from key areas of the brainstem. Acute activation of these inhibitory mechanisms has been proposed as the basis for gammaCore's clinical efficacy in the treatment of CH attacks. The clustering of these attacks suggests a prolonged susceptibility of CH patients to loss of inhibition, or excessive activation. Prevention, therefore, may be possible by reducing the susceptibility of the circuit either by sustained elevation of baseline inhibition, or elimination of the stimuli activating the facial nerves.

In one model of CH, prolonged irritation of the facial tissue, which includes the sinus passages around the orbital socket, may cause activation of the facial nerves. Periodic inflammation of the sinuses may be related to the observed increase in episodic CH activity in the spring and fall, when allergens are more prevalent. Consistent with this mechanism, corticosteroids, like prednisone, have shown efficacy as a preventative treatment for patients entering a cluster bout. Unfortunately, because of the side effects of prolonged steroid use, steroids are typically only prescribed in short duration.

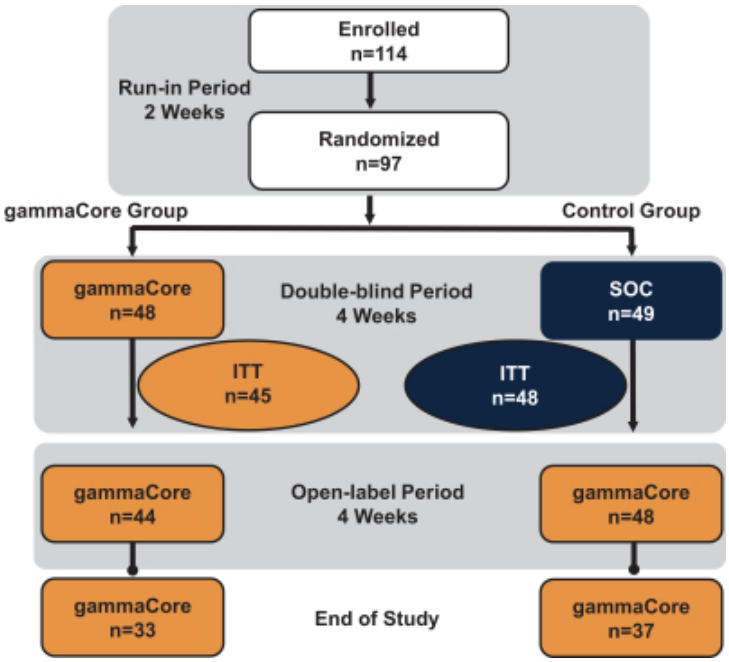
Currently Used Therapies for Cluster Headache Prevention and Their Limitations. There are currently no FDA approved medications for the prevention of CH, driving off-label use of medications, such as lithium, valproic acid and high-dose verapamil. These medications have unproven efficacy and the potential for significant health risks, including adverse cardiac events, organ toxicity and birth defects. As a result, patients are confronted with the difficult choice of continuing to suffer CH attacks unabated or to try treatments with uncertain clinical benefit and the potential for serious medical consequences.

Our PREVA Trial – gammaCore for Prevention and Acute Treatment of Chronic Cluster Headache

Our PREVA trial, or PREVA, was a prospective, multi-center, open-label, randomized, controlled, parallel-group trial of gammaCore for the prevention of cCH. The trial enrolled 114 patients with 97 patients randomized and was conducted at 10 sites in Europe, including academic medical centers and other tertiary headache clinics. PREVA was designed to assess the superiority of adjunctive use of our gammaCore therapy with standard of care medications in comparison to standard of care medication alone, and included three periods: (1) a two-week baseline phase during which all patients received only their individualized standard of care, or SoC, (2) a four-week randomized period during which

participants were randomly assigned the adjunctive treatment or SoC arms; and (3) a four-week open label period during which all participants received adjunctive gammaCore therapy. The primary endpoint for the trial was defined as the mean change from baseline in the number of weekly attacks in the third and fourth week of the randomized period compared with the average weekly attack rate in the baseline period.

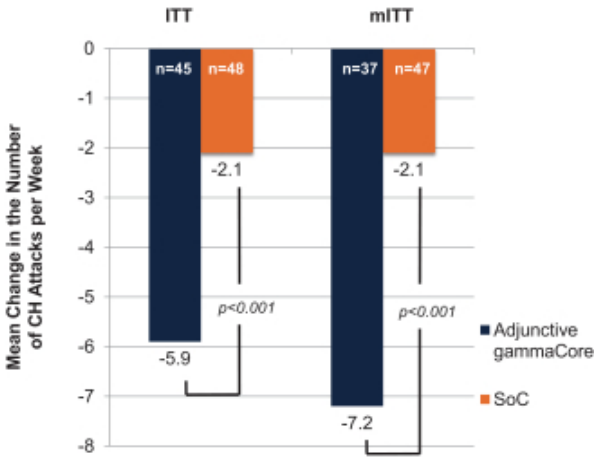
Figure 18: PREVA Trial Consort Diagram



As shown in Figure 18 above, in PREVA, 114 patients were enrolled and assessed at baseline, 97 of whom provided baseline data and were considered reliable trial participants. Of these patients, 93 met the criteria for inclusion in the ITT population having provided evaluable data (gammaCore, n=45; SoC, n=48). Of the ITT population, 92 provided data in the open-label period (gammaCore, n=44; SoC, n=48). Demographics and baseline characteristics were similar between these groups and were representative of the overall CH population. Use of SoC medications was also comparable between groups. A modified ITT, or mITT, population, defined to include only patients with measurable data across the respective study periods (gammaCore, 37/45; SoC, 47/48), was also provided in the primary publication of these data in 2016.

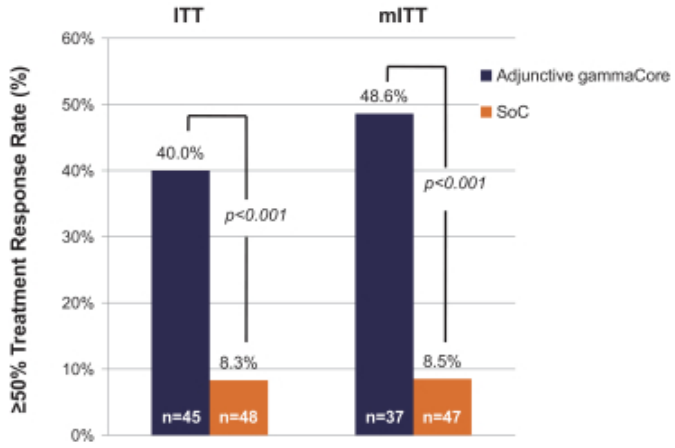
As shown in Figure 19 below, during the randomized period, participants receiving adjunctive gammaCore treatment had a significantly greater reduction from baseline in the number of CH attacks per week compared to those receiving SoC alone (gammaCore, -5.9; SoC, -2.1; $p<0.02$). In the mITT population, the therapeutic benefit was more pronounced in the adjunctive gammaCore cohort (gammaCore, -7.2; SoC, -2.1; $p<0.001$). To determine the efficacy of longer-term prophylactic use of gammaCore, the reduction in the number of CH attacks during the open label period was examined in the 30 patients who continued adjunctive gammaCore use through this period. These patients reported a statistically significant reduction of two CH attacks per week ($p<0.001$) compared with the randomized period, suggesting further benefit with continued adjunctive use of our therapy.

Figure 19: Primary Endpoint Analysis of the ITT and mITT Populations for the PREVA Trial



As shown in Figure 20 below, in the ITT population, a significantly higher proportion of the patients receiving adjunctive gammaCore treatment experienced a ³50% reduction in CH attack frequency during the randomized period compared with the SoC cohort (gammaCore, 40.0%; SoC, 8.3%; $p<0.001$). Similarly, the response rate in the mITT population was also significantly higher for individuals receiving adjunctive gammaCore therapy (gammaCore, 48.6%; SoC, 8.5%; $p<0.001$), suggesting that patients who remained in the trial had greater response.

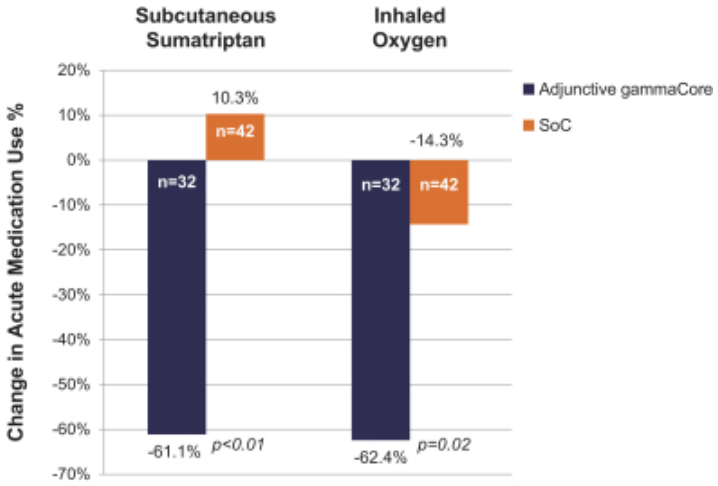
Figure 20: Responder Rate Analysis for the ITT and mITT Populations in the PREVA Trial



The use of abortive medications to acutely treat CH attacks was reported during all three periods of the trial. Changes in the use of acute medication are generally used as a surrogate for efficacy in preventing the occurrence of CH attacks. Reliable data on the use of abortive medications was only available in the mITT population. The number of times abortive medications were used in this population during the last two weeks of each trial period is shown in Figure 21 below. During the randomized period, the gammaCore cohort reported a statistically significant decrease of 61.1% ($p<0.01$) in the frequency of use of subcutaneous sumatriptan injections over the baseline period, whereas the SoC cohort reported an 10.3% increase in the use of this injected medication over baseline. Changes in the use of high-flow oxygen showed a similar difference in favor of adjunctive gammaCore use in that the reduction in its use

among the gammaCore cohort was 62.4% (p=0.02) compared with only a 14.3% reduction in the SoC cohort. Similar results were seen in the open-label period.

Figure 21: Change in Abortive Medication Use for the mITT Population in the PREVA Trial



In our PREVA trial, no SAEs were attributable to gammaCore. During the two months of treatment, similar proportions of participants in the gammaCore cohort and SoC cohort (gammaCore, 52%; SoC, 49%) reported AEs. Most AEs were mild or moderate (93% (108/116)). Overall, as shown in Table 8 below, the most common AEs were CH attacks (gammaCore, 1; SoC, 5), along with nasopharyngitis, dizziness, oropharyngeal pain, and neck pain.

Table 8: Most Commonly Reported AEs from the PREVA Trial

	gammaCore (n=48)	Control (n=49)
ADEs Occurring in ≥ 5% Subjects in Any Treatment Group, No. (%)		
CH	1 (2)	5 (10)
Dizziness	3 (6)	3 (6)
Headache	4 (8)	1 (2)
Nasopharyngitis	1 (2)	4 (8)
Oropharyngeal pain	3 (6)	1 (2)
Neck pain	3 (6)	0

In summary, this trial met its primary endpoint by demonstrating that daily adjunctive prophylactic use of our gammaCore therapy significantly reduced the number of CH attacks per week, which led to substantial reductions in abortive medication use.

Prevention of Migraine

At sufficient exposure, migraine triggers such as lack of sleep, low oxygen levels and toxins, like alcohol, are capable of causing headaches. Some individuals experience migraine attacks after modest exposure to

these and other triggers. When identifiable, avoidance of such triggers is a staple technique for migraine prevention.

Despite trigger identification and employment of a corresponding avoidance strategy, there remains a high unmet need among migraineurs for safe and effective preventative therapies. According to the U.S. Agency for Healthcare Research and Quality, only about 12% of adults with high frequency or chronic migraine take preventive medications. According to the American Migraine Foundation, medication side effects often limit the use of migraine medications.

Currently Used Therapies for Migraine Prevention and Their Limitations. Five products are currently approved by the FDA for the prevention of migraine: anti-epileptic drugs, topiramate (Topamax) and valproic acid (Depakote), beta-blockers, propranolol (Inderal) and timolol (Blocadren), and BOTOX. BOTOX is the only product that has been approved by the FDA for the prevention of chronic migraine, and its label is limited to that subgroup. In all cases, these medications were first approved for other uses.

These current treatments are ineffective or inconvenient for many patients, and their use has been limited by issues with tolerability and side effects, including cognitive impairment, nausea, fatigue and sleep disturbance. Anti-epileptic drugs are also associated with poor pregnancy outcomes and fetal abnormalities, which is a concern for women of childbearing years. In clinical trials, these medications require four to six weeks of daily administration before most patients experience measurable clinical benefit. For example, BOTOX requires approximately 31 subcutaneous injections at various sites on the head and neck, repeated every 12 weeks.

We believe there is a need for a new therapy that can either prevent migraines or reduce their severity to a level at which supplemental existing abortive therapies can provide relief as needed, with reduced side effects. Such a therapy could provide benefit for both patients on existing therapies and patients who have abandoned therapy.

Mechanisms of Action Evidence Supporting gammaCore Use in Migraine Prevention

Approximately 25% of all migraine patients experience sensory symptoms known as “aura” prior to the pain stage of at least a portion of their migraine attacks. Aura is characterized by visual symptoms, most frequently, or by other symptoms associated with synchronized depolarization in the brain. This synchronized depolarization, referred to as cortical spreading depression, or CSD, is believed to occur more readily when the brain is in a hyperexcitability state. Based on their ability to reduce brain hyperexcitability, several anti-epileptic drugs are used for the prevention of migraine.

To investigate the effects of VNS, which was first used clinically in epilepsy, on hyperexcitability, we sponsored a series of pre-clinical studies at the Massachusetts General Hospital. The results, published in 2016, showed that our gammaCore therapy rapidly increased the thresholds for triggering CSDs, and reduced brain hyperexcitability. In contrast to the chemical medications mentioned above, a two-minute dose of our therapy was able to multiply by approximately 2.5 times the intensity of the trigger required to initiate CSDs within 20 minutes of initial treatment. This compares favorably to drug treatments that require weeks to months of daily administration, often with associated side effects, before achieving clinical benefit.

Recently published genetic and epigenetic studies suggest a strong association between migraine and genes tied to severe inflammatory conditions. These findings, coupled with recent breakthroughs in our understanding of how the immune system affects the expression of neurotransmitters, CGRP, and their receptors, may enhance our explanations of how hyperexcitability arises. To further this understanding, we sponsored studies in which prolonged inflammation was used to sensitize animals to respond to migraine triggers.

In this work, twice-daily gammaCore treatments, administered during the prolonged inflammation period, inhibited sensitization. Animals treated with gammaCore were indistinguishable from a non-sensitized animal group in their lack of response to the migraine trigger, which contrasted with the sensitized group not treated with gammaCore, which responded with pain behavior. Brainstem tissue from the untreated, sensitized group was analyzed, and showed evidence of CGRP synthesis, as well as a greater number of actual CGRP vesicles. In contrast, both non-sensitized animals and gammaCore-treated animals exhibit normal intracellular biomarkers of CGRP synthesis and normal levels of CGRP vesicles. Further tissue analysis revealed that pain pathway neurons in sensitized animals exhibited elevated expression levels of CGRP receptors. In contrast, the non-sensitized and the gammaCore-treated animals showed no elevation in CGRP receptor populations.

We believe these preclinical studies provide mechanistic support for the development of gammaCore for the prevention of migraine.

Clinical Data in Support of gammaCore for Migraine Prevention

Our EVENT Trial – Chronic Migraine Headache Prevention with gammaCore

Our EVENT trial was a multi-center, randomized, sham-controlled pilot clinical trial with respect to the use of our gammaCore therapy for the prevention of chronic migraine and was published in 2016. This prospective double-blind pilot trial was conducted at six tertiary care headache centers in the United States. The trial included three consecutive periods: (1) a one-month baseline period during which patients provided data regarding their frequency of headache attacks to serve as a baseline comparator; (2) a two-month, randomized, sham-controlled period during which patients received prophylactic treatment with gammaCore or a sham; and (3) a six-month open-label period during which all patients received gammaCore. The primary objective of the EVENT trial was to assess the feasibility, safety, and tolerability of our gammaCore therapy, and as such, was not powered to reach statistical significance with respect to any efficacy measures. The trial enrolled 59 patients.

At baseline, the mean number of headache days in the gammaCore cohort (n=30) was 20.8 and 22.0 for the sham cohort (n=29). At the conclusion of the randomized period, the gammaCore cohort had experienced an average reduction of 1.4 migraine days while the sham cohort experienced a 0.2 migraine day decrease. The mean change from baseline was not statistically significant between groups. A per protocol cohort was identified in whom the mean migraine day reductions for the gammaCore and sham cohorts were 2.0 and 0.1, respectively.

During the open-label period, the original gammaCore cohort experienced continued reductions in migraine days. In this period, patients in the sham cohort gained access to gammaCore and began to show improvement. The data from this trial demonstrated that continued use of our gammaCore therapy provides increased benefit. A *post hoc* completers analysis demonstrated statistically significant and clinically meaningful reductions from baseline at the conclusion of the trial in both cohorts (initial gammaCore randomization cohort, 8.0 migraine-day reduction; initial sham randomization cohort, 6.0).

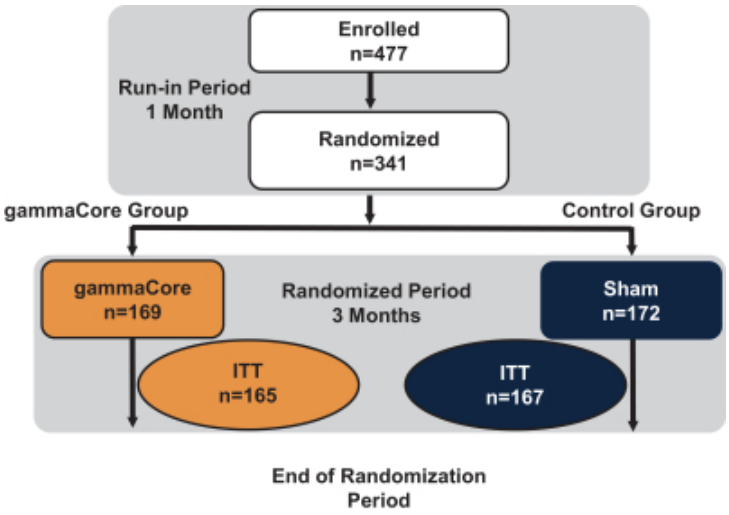
The primary purpose of this trial was safety and tolerability. Our gammaCore therapy was well tolerated and mild to moderate adverse events were generally similar in both groups.

The PREMIUM Trial – Our Registration Trial for the Prevention of Migraine

Our PREMIUM trial, or PREMIUM, is a pivotal, randomized, double-blind, sham-controlled prospective trial of gammaCore for the prevention of migraine. The trial is being conducted at 22 centers in Europe, included academic medical centers and other tertiary headache clinics, and enrolled 477 patients into a 28-day baseline run-in period, 341 of whom are included in the safety population and 332 of whom are included in the ITT population. PREMIUM was designed to assess the superiority of our gammaCore

therapy in comparison to sham treatment and included three distinct periods: (1) a 28-day run-in period; (2) a three-month double-blind period; and (3) a six-month open-label period. PREMIUM has progressed through the randomized period and is currently in the open-label period. The data presented herein below relate to the randomized period only and are the result of preliminary analytics performed by our independent third-party statisticians. Patients were instructed to treat themselves with two 120-second doses of gammaCore therapy or sham treatment, twice per day. Patients randomized to the sham treatment were offered the opportunity to use gammaCore during the open-label period. The primary endpoint for the trial is a reduction in the average number of migraine days per month during the third month of the randomized period compared to the average number of migraine days per month in the baseline period between the two cohorts. Investigators, patients, and study coordinators were blinded to treatment assignments in the double blind phase of the trial.

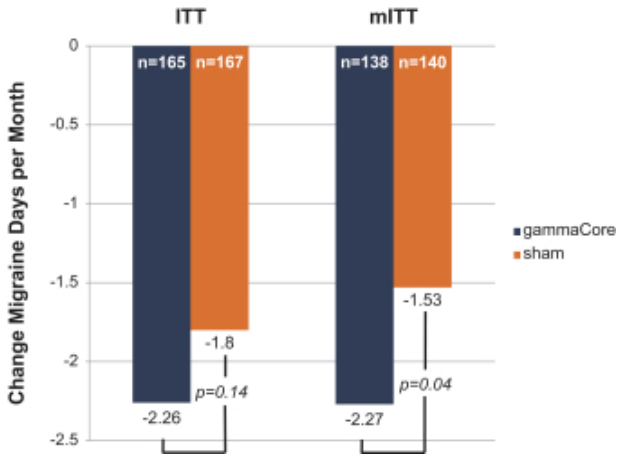
Figure 22: PREMIUM Trial Consort Diagram



As shown in Figure 22 above, in PREMIUM, all patients randomized (gammaCore, n=165; sham, n=167) represent the ITT population. Of these patients, 278 (gammaCore, n=138; sham, n=140) complied with the trial requirement to self-administer no fewer than two-thirds of the specified treatments per month during the randomized period. This population represents an mITT. Demographic and baseline characteristics were generally well balanced between the gammaCore and sham cohorts.

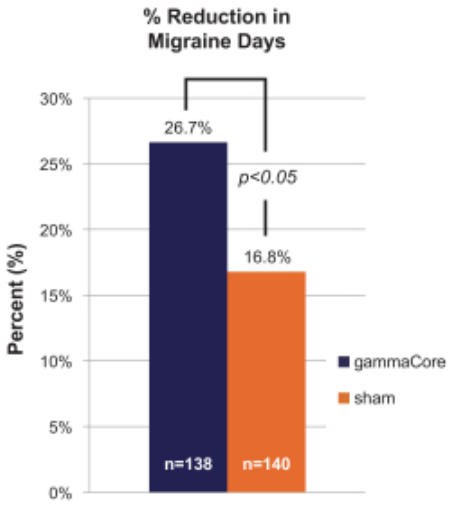
For the ITT and mITT populations, the baseline average number of migraine days per month was similar between the two cohorts (gammaCore, 7.94 and 8.06, respectively; sham, 7.80 and 7.78, respectively). The primary endpoint was not met for the ITT population (gammaCore, -2.26; sham, -1.80; p=0.15; linear regression). However, as shown in Figure 23 below, statistical significance was achieved in reduction of migraine days per month, the primary endpoint metric, for the mITT population (gammaCore, -2.27 migraine days; sham, -1.53 migraine days; p=0.04; linear regression).

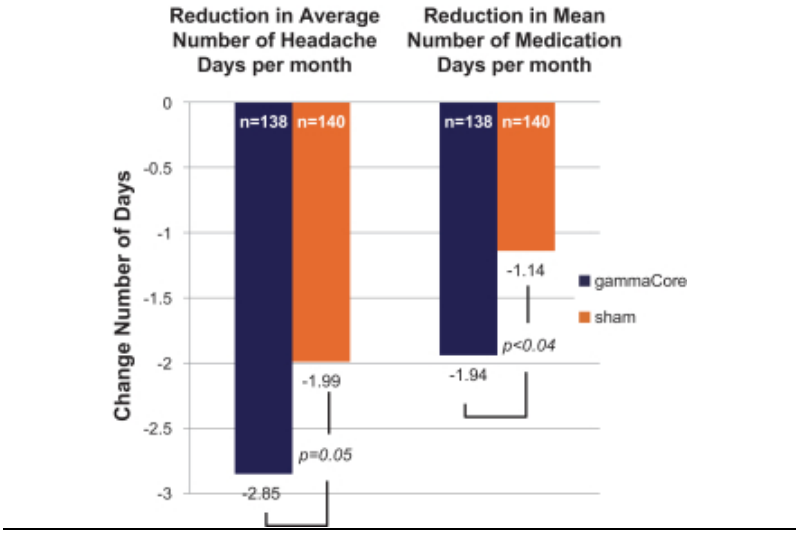
Figure 23: Primary Endpoint Analysis of the ITT and mITT Populations for the PREMIUM Trial



As shown in Figures 24 and 25 below, with respect to key secondary and exploratory endpoints, statistical significance was achieved across several measurements in the mITT population. As shown in Figure 24 below, the average percentage reduction in migraine days per month among the mITT population was greater for the gammaCore cohort compared with sham (gammaCore, 26.7%; sham, 16.8%; $p<0.05$). As shown in Figure 25 below, the reduction in the average number of headache days per month among the mITT population was greater for the gammaCore cohort compared with sham (gammaCore, -2.85; sham, 1.99; $p=0.05$). The mean reduction in days on which medication was required was statistically significant greater in the gammaCore cohort as compared with sham among the mITT population (gammaCore, -1.94; sham, -1.14; $p<0.04$). While not reaching statistical significance, the proportion of patients experiencing at least a 50% reduction in migraine days per month demonstrated a trend toward significance consistent with the previously reported endpoints (gammaCore, 31.6%; sham, 22.1%; $p<0.08$).

Figures 24 and 25: Additional Secondary and Exploratory Endpoint Analysis for the PREMIUM Trial





In our PREMIUM trial, no SAEs were attributed to gammaCore. Of all randomized patients, 25.8% (88/341; gammaCore, 31/169; sham, 57/172) had [3] to 1 ADE during the trial. As shown in Table 9 below, the most commonly occurring ADEs were application site irritation, all of which were non-serious, transient, and tended to be self-limiting in nature. The PREMIUM trial demonstrated that our gammaCore therapy for acute migraine treatment has a highly favorable tolerability profile.

Table 9: Most Commonly Reported ADEs from the PREMIUM Trial

	Randomized Period	
	gammaCore (n=169)	Sham (n=172)
ADEs Occurring in >1 Subject in Any Treatment Group, No. (%)		
Application site reactions (discomfort, pain, irritation)	3 (1.8)	7 (4.1)

Additional Headache Opportunities

Migraine in Adolescents. Peak migraine penetrance occurs during adolescence and parents may be hesitant to place children on medication. Our clinician advisors have indicated their belief that our gammaCore therapy would be particularly well received in this population given its tolerability profile. We are currently partnered with opinion leaders from academic medical centers and other tertiary headache centers to develop a clinical trial that we expect to initiate in the second half of 2018 to support a label expansion for gammaCore to include patients as young as 12 years of age.

Post-Traumatic Headache. Unlike migraine and CH, which are primary headaches, Post-Traumatic Headaches, or PTH, are classified as secondary headaches because they have a clear causation associated with head trauma. Research has shown that head trauma activates immune cells in the central nervous system. This activation can lead to a disruption in neurotransmitter expression, hyperexcitation, and to the production of CGRP.

VNS, including gammaCore therapy, has been shown to be effective in reducing this immune cell activation. Our clinical and scientific advisors have indicated their belief that our gammaCore therapy has the potential to offer therapeutic benefit for this patient population. We are currently developing a clinical trial that we expect to initiate in the second half of 2018 to support a label expansion for gammaCore to include PTH.

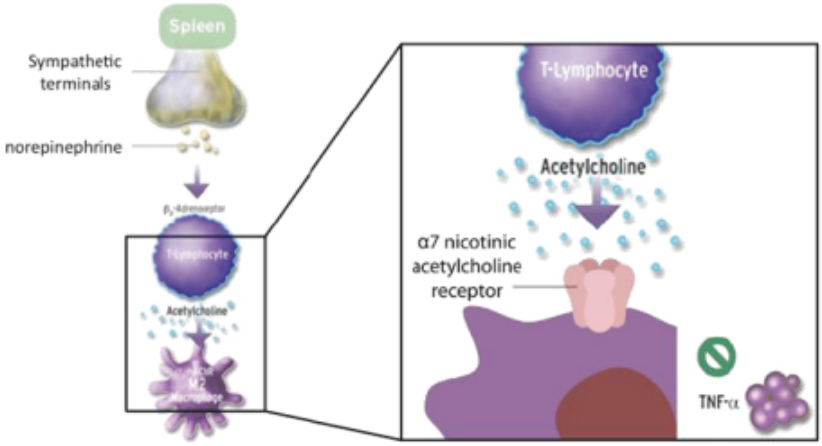
Our Pipeline

Rheumatology

The Anti-inflammatory Mechanisms of VNS

The systemic anti-inflammatory effects of VNS are believed to result from the activation of sympathetic fibers in the splenic nerve, through a connection at the celiac ganglion. These sympathetic fibers release norepinephrine into the spleen in close proximity to a specialized group of immune cells that release acetylcholine, or ACh. This release of ACh activates a receptor, the alpha 7 nicotinic ACh receptor, or a7nAChR, on cytokine-releasing immune cells called macrophages. Activation of these receptors is believed to function by blocking transcription factors that promote inflammatory cytokine expression. Based on the role of ACh in activating this pathway, which is shown in Figure 26 below, it has been termed the cholinergic anti-inflammatory pathway, or CAP.

Figure 26: The Cholinergic Anti-Inflammatory Pathway



Sjôgren's Syndrome

Paralleling our market penetration strategy in headache, we have chosen to enter rheumatology in Sjôgren's syndrome, a condition with high unmet need and no currently approved disease modifying treatments. We believe that further expansion into other areas of rheumatology from this base of relevance among clinicians will maximize our ability to penetrate areas like rheumatoid arthritis.

Sjôgren's syndrome is a chronic inflammatory condition characterized by damage to, and ultimate loss of, moisture-producing glands. The primary clinical consequence of this damage is dry mouth and dry eyes, which can cause significant tooth loss and ocular injury. Related similar symptoms can include dry skin, a chronic cough, and vaginal dryness. Primary Sjôgren's syndrome, defined as being independent of other rheumatologic conditions, affects approximately 600,000 people in the United States, primarily women. Secondary Sjôgren's syndrome arises in conjunction with other inflammatory conditions, and increases the number of Sjôgren's sufferers to approximately four million people in the United States.

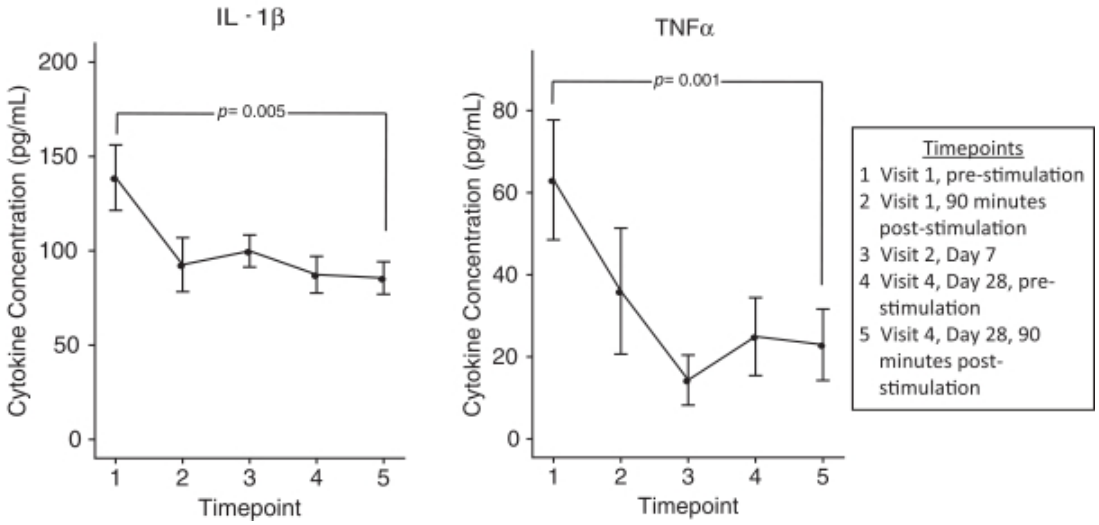
It is believed that the disease begins with increased inflammatory cytokine levels of interleukin-1 beta, or IL-1ß. The elevated level of IL-1ß is believed to be the underlying cause of the debilitating fatigue and sleepiness, symptoms that are often the cause of the greatest loss in quality of life among Sjôgren's patients. This fatigue is a symptom of what is referred to as cytokine-induced sickness behavior.

Sickness behavior is a coordinated set of behavioral changes associated with extended periods of inflammation, including inability to concentrate, lethargy, malaise, fatigue, sleepiness, hyperalgesia, depression, and anxiety. These symptoms are common across many conditions in rheumatology.

An initial open label pilot trial of gammaCore for the treatment of primary Sjôgren's syndrome was funded by the U.K. Arthritis Foundation, the results of which were recently presented at the 2017 American College of Rheumatology annual meeting. This trial enrolled 15 patients, all of whom provided evaluable data. At the beginning of this trial, enrolled patients provided baseline self-assessments of multiple key symptoms of their condition and blood samples were taken to establish baseline cytokine and other biomarker expression levels. During this first visit, patients were treated with gammaCore and additional blood samples were taken 90 minutes after this initial treatment. Patients were instructed to self-administer gammaCore twice daily, each treatment comprising two doses. Patients returned after seven days to provide self-assessments and additional blood samples. Patients continued this treatment protocol through a total of 26 days. On day 28, after a two-day treatment hiatus, patients provided self-assessments of their symptoms and additional blood samples both before, and 90 minutes following a final gammaCore treatment.

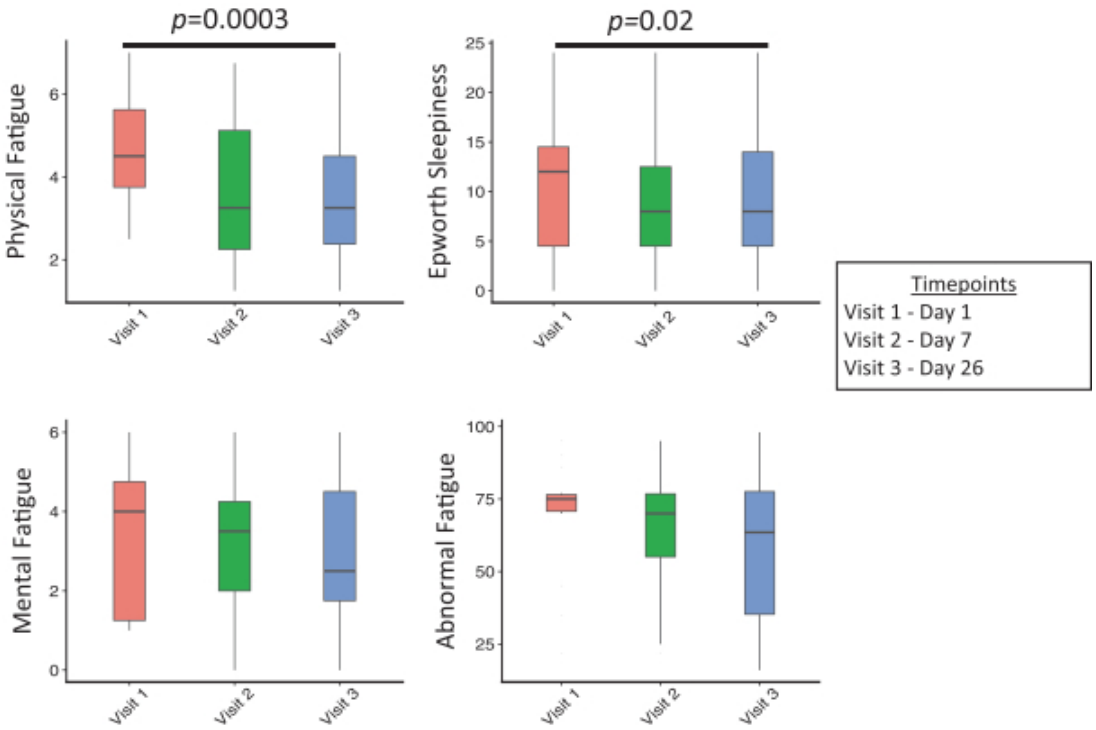
As shown in Figure 27 below, cytokine levels of both IL-1ß and TNF-a were significantly reduced from timepoint 1, or baseline, to timepoint 2, 90 minutes following their first treatment with gammaCore. The levels of these cytokines remained at these reduced levels, or lower, at timepoint 3, which was their day seven visit, and timepoints 4 and 5, both of which occurred at their day 28 visit (both before and after their final gammaCore treatments).

Figure 27: Reductions in IL-1ß and TNF-a from baseline through Day 28 in Sjôgren's syndrome patients using gammaCore therapy.



As shown in Figure 28 below, the clinical results from this open-label pilot trial demonstrated statistical significance for reductions in physical fatigue and sleepiness, and trends toward significance for mental fatigue and abnormal fatigue.

Figure 28: Reductions in key fatigue and sleepiness measurements from baseline through Day 26 in Sjôgren's syndrome patients using gammaCore therapy.



We are currently preparing for a pre-investigational device exemption, or IDE, meeting with the FDA to gain clarity regarding a pivotal trial design that could support an application for a labeling claim for the signs and symptoms of Sjôgren's syndrome, and confirm that the FDA's review of such an application would proceed through the *de novo* pathway.

Rheumatoid Arthritis

Rheumatoid arthritis, or RA, is a chronic autoimmune disorder primarily affecting joints, and in particular the synovial tissue within the joint capsule. The condition is characterized by observable inflammation in the synovial tissue of affected joints, with associated warmth, swelling, pain, and loss of function around the inflammation. Symptoms typically worsen following rest. The most commonly affected areas include smaller joints of the body such as the wrists, hands, and feet, and typically affects the same joints on both sides of the body.

Uncontrolled RA is associated with significant morbidity and increased mortality. The current standard of care involves treating patients early and aggressively to prevent, or significantly retard the progression of joint damage. This is important, as progression of joint damage is directly correlated with debility, disability and loss of function. Approximately 2.4 million patients, predominantly women, suffer from RA in the United States. Current treatments for RA have been shown to possess a disease modifying effect, in addition to being effective at controlling signs and symptoms. Some agents used in the treatment of RA, most notably the biologics have shown effectiveness in the treatment of psoriatic arthritis and ankylosing spondylitis.

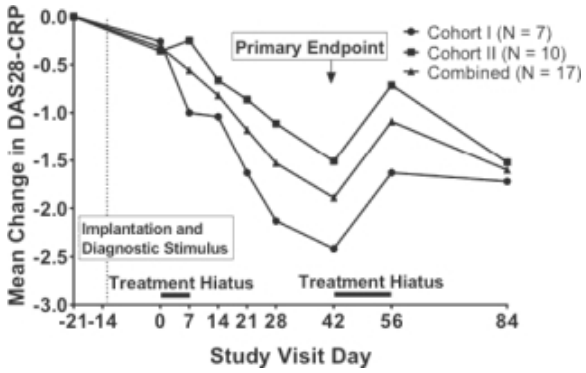
Inflammatory cytokines have long been identified in the pathogenesis of RA. Medications that inhibit immune activity, either broadly, like corticosteroids, or biologic agents, specifically targeting individual cytokines, have been key treatment options for RA patients. Typically, patients with RA initiate treatment with methotrexate, or MTX, which is sufficient to arrest the disease progression and provide relief of the disabling symptoms in approximately 25% of the affected population. Despite being generically available, the average cost of chronic MTX treatment in the United States still averages greater than $200 per month.

Incomplete response to MTX requires additional therapy, typically in the form of a biologic treatment, the most common of which are antibodies or antibody-like proteins that bind to TNF-a. By targeting TNF-a, these treatments alter the normal functioning of the immune system, and as such carry significant risks related to opportunistic infections and several forms of cancers. Approximately 40% of patients with RA are successfully treated with this class of medications, but at an average cost of $30,000 per year. Estimates suggest that of the more than $30 billion of annual global sales of these medications, sales for RA and related conditions of ankylosing spondylitis and psoriatic arthritis exceed $15 billion.

Those patients who are inadequately managed by MTX and/or anti-TNF-a agents, typically advance to other biologic agents that attempt to either block the circulating levels of other target inflammatory cytokines, or block the intracellular pathways that promote the production of inflammatory cytokines. The latter includes the Janus kinase inhibitors, such as Xeljanz, which have an annual cost currently ranging from $40,000 to over $60,000.

Initial clinical evidence for the use of VNS in RA was published in 2016 reporting on an open label pilot trial of implanted VNS among a group of 17 RA patients who had failed standard of care therapy (7 MTX incomplete responders and 10 who had failed at least two biologic agents). As shown in Figure 29 below, the results of this trial demonstrated clinical improvement in disease activity score, or DAS28, over a six-week period of about 2.5 points in MTX incomplete responders and about 1.5 points in biologic failures greater than 1.5 points. Patients had their VNS therapy deactivated for a two-week period following the initial six-week treatment period, during which time DAS28 scores rapidly returned to prior activity levels. This trend reversed and trended towards improvement when VNS therapy was re-initiated.

Figure 29: Mean change in DAS scores reported following implantation of and activation of VNS devices.



We are currently preparing for a pre-IDE meeting with the FDA to confer with its reviewers regarding a multi-center, randomized, double blind, sham-controlled trial of gammaCore therapy for the treatment of RA and to confirm that the FDA's review of such an application would proceed through the *de novo*

pathway for a signs and symptoms labeling claim. As our potential trials progress, we may, at the appropriate time, conduct premarket activities in rheumatology, such as market analysis, physician and patient segmentation research, and promotional and campaign development.

Manufacturing

We are the FDA-registered manufacturer of our gammaCore products. We rely upon third-party suppliers, located both within and outside the United States, for substantially all of the component parts of gammaCore, including injection molded housings, printed circuit board assemblies, batteries, electrodes and conductive gel.

At our facility in Basking Ridge, NJ, we inspect the component parts following receipt to ensure they meet their design specifications. This quality inspection involves physical measurements and electrical performance testing. After successful completion of this inspection, our proprietary software is loaded into the microcontroller located on the printed circuit board. The battery and electrodes are connected to the printed circuit board, which is then placed in a plastic housing. The gammaCore is then configured to deliver the number of days of therapy to be prescribed, and a final test is performed on the unit to ensure it meets our performance specifications. The unit is then packaged, along with appropriate labeling, instructions for use and conductive gel, and shipped into our distribution network.

We currently have sufficient capacity to meet anticipated demand for our therapy for the foreseeable future. As demand rises, we may choose to maximize operating efficiencies by transferring manufacturing to one or more company-approved contract manufacturers. We are currently evaluating potential third-party manufacturers; however, we do not anticipate such a transfer will occur prior to 2019.

In order to protect against the risk of supply chain disruption, we are qualifying alternative vendors and suppliers to ensure timely access to components necessary for the manufacture and assembly of our gammaCore products. We will also retain the expertise and capabilities to fulfill our commercial product needs internally, if necessary. These measures include purchasing a sufficient advanced supply of key components to reasonably assure that no component shortages will interrupt our ability to manufacture and deliver our products to patients on a timely basis.

The generation of our proprietary signal does not require custom electronic components. Therefore, we believe long-term manufacturing, supply and quality agreements with our suppliers are not necessary as all the components used in our products are either high-volume, non-custom commodity components, or are readily available from multiple vendors. The majority of these components have multiple sources, and the few with single-sources have been purchased with sufficient reserves to permit continued production of our product should simple design modifications be required.

Coverage and Reimbursement

Commercial payors in the United States typically make coverage and reimbursement decisions with respect to new therapies based on three key factors: the strength of the therapy’s clinical data; initial patient demand; and the absolute and relative cost of the therapy. Our payor engagement strategy was initiated 18 months prior to market entry, with pipeline presentations across the largest two-dozen commercial payors in the United States. We engaged with payors directly and through experienced consultants specializing in securing coverage and reimbursement. Many of these payors have indicated that we should advocate for reimbursement of our product as a pharmacy benefit. This pathway may allow patients to obtain our therapy through payment of a co-payment rather than being personally responsible for the costs of our product until meeting an annual deductible. The pathway may also permit payors to manage utilization of gammaCore through different tiers of coverage requiring varying co-pay amounts, prior authorizations, and requirements that patients fail less expensive treatments before gaining access to more expensive therapies. While some commercial payors may provide coverage

under their pharmacy benefit plans, other payors, including governmental and private insurers, may not be willing or authorized to provide coverage for our therapy under pharmacy plans that more commonly cover prescription drug products. These payors may require us to seek coverage for gammaCore as a medical supply or item of durable medical equipment, which could result in the application of different pricing, reimbursement, and patient cost-sharing policies to our products.

Our strategy has been to gain early access for the narrowly defined market of CH where patients have only one other FDA-approved commercially available acute treatment option. To address the key factors used to make coverage and reimbursement decisions, we provide payors published data from our multiple clinical trials. Our commercial product registry is designed to generate patient demand in the form of prescriptions submitted to the payors. In concert with this commercial registry, we have established a comprehensive publication program to highlight evidence of the high cost of CH patients and to support the use of gammaCore as a cost-effective treatment option. To demonstrate this, we hired a pharmacy benefit management company that reviewed data from four of its regional health plans, totaling 2.5 million members. This review revealed that pharmacy costs for CH patients were double that of patients in a matched group of non-CH sufferers, and were 2.3 times more likely to be prescribed an opioid. However, many third-party payors do not currently cover our products because they have determined gammaCore and other non-invasive VNS treatments to be experimental or investigational.

In addition, the U.S. government, state legislatures and foreign governments have continued implementing cost-containment programs, including price controls and restrictions on coverage and reimbursement. Adoption of price controls and cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures, could limit our net sales and results. Decreases in third-party reimbursement for our products or decisions by third-party payors to not cover our products could reduce physician utilization of our products and have a material adverse effect on our sales, results of operations and financial condition.

As part of our broad payor engagement strategy we are seeking to secure pharmacy benefit reimbursement for our therapy by working with both commercial payors and pharmacy benefit managers, also known as PBMs. PBMs are third party groups who manage the pharmacy benefits offered by the commercial payors. In the U.S. market, there are three major large PBMs. We have entered into an agreement with one of these major PBMs, which manages approximately 60 million U.S. lives. Pursuant to this agreement, gammaCore will be covered, depending on the commercial payor that the PBM serves, and the specific plan, for commercially covered U.S. patients, as either a preferred brand or non-preferred brand. As a preferred brand, or Tier 2 product, the coverage would require a monthly copayment paid by the patient of approximately $30. As a non-preferred brand, considered a Tier 3 product, the monthly copayment would likely be between $60 and $75. Under this agreement, we anticipate, based on our estimates, that approximately 15 million U.S. commercial lives will shortly have access to our therapy as either a Tier 2 or Tier 3 product, and we anticipate this number will grow to at least 45 million lives under this agreement over the coming quarters as we, together with this PBM, engage with additional commercial payors to position our product across the payors' plans. The strategy of engaging with payors and PBMs is continuing as we engage the other major PBMs and payors towards the goal of increasing patient access to our therapy.

Commercialization

Our commercial strategy will initially focus on the following priorities:

- ***Drive advocacy of gammaCore as a leading headache therapy.*** Our strategy is to establish gammaCore as a preferred treatment option, initially in eCH and expanding into migraine.
    - We are developing advocacy for gammaCore among key opinion leaders, who are well-known or emerging leaders in the areas of headache and neurology, through our

clinical program and initial product registry. We currently have in excess of 300 clinicians trained on gammaCore use and over 600 unique prescribers. Of these, 50 are key opinion leaders who are compensated by us on a per diem basis pursuant to one-year agreements to lead a series of programs to educate their colleagues on our clinical data and our specialty pharmacy distributor and its network of specialty pharmacies. Through the second quarter of 2018, we have scheduled 50 peer-to-peer educational programs, which will be led by these key opinion leaders. An additional 150 such programs are scheduled for the third and fourth quarters of 2018.

- We established our proprietary gammaCore product registry in July 2017 to enroll patients diagnosed with eCH. Through our registry, which we maintain, non-federal health care program patients are offered two free months of gammaCore therapy and are asked to report their outcomes across quality of life criteria. At enrollment, patients report baseline information such as number of years living with eCH, time, duration and intensity of attacks. Patients also provide information regarding their medication usage prior to and during registry participation in conjunction with their use of gammaCore, their number of attacks treated with gammaCore, their number of stimulations with our therapy and the impact of our therapy on their pain intensity and duration. Because payors and physicians value real world data, we believe the registry data will aid in their assessment of gammaCore.

- ***Drive reimbursement of our therapy***. Through our product registry and initial commercialization efforts we are generating prescriptions and patient claims to prompt commercial payors to initiate clinical review and subsequent reimbursement policies for gammaCore. We have engaged over 50 national and regional commercial insurance payors in the United States with the goal of obtaining reimbursement coverage as a pharmacy benefit. Agreements with commercial payors are in place that we believe, based on our estimates, will provide for reimbursement for gammaCore as a pharmacy benefit for approximately 17 million commercial lives, including a contract with a large PBM that we believe, based on our estimates, will initially cover 15 million commercial lives, with such number expected to increase over the next several quarters to as many as 45 million lives under such agreement. In addition, our access negotiations have entered the active clinical review stage with more than a dozen additional insurance plans covering approximately 120 million additional commercial lives.
- ***Build a leading commercial presence.*** Our sales force targets high-prescribing neurology practices and headache centers in the United States. Currently, our sales force consists of four regional business directors and 18 territory business managers. In addition, three medical science liaisons provide medical affairs support. We plan to hire an additional 14 territory business managers, who will ultimately cover 6,400 high-prescribers of headache medications and an additional two medical science liaisons. Based on the extent and nature of insurance coverage provided by payors for gammaCore, we may hire up to an additional 16 territory business managers for aggregate coverage of 9,600 prescribers.
- ***Leveraging a national specialty pharmacy distribution network*.** Through our specialty pharmacy distributor, we have access to an established national specialty pharmacy distribution network that provides physician and patient support to quickly onboard patients and manage payor interactions. This support includes adjudication of all gammaCore prescriptions, payor claims for reimbursement, and patient support and training. Our specialty pharmacy distributor is national in scope, supports the national shipping and dispensing of our therapy and has access to a network of hundreds of individual specialty pharmacists throughout the United States. This pharmacy network is scalable in size allowing for customized solutions to fit our distribution needs for the foreseeable future. It also has the capacity to adjudicate claims for reimbursement for our products from all commercial payors segments.

Our Proprietary gammaCore Ecosystem. We continue to focus on fostering advocacy among key opinion leaders and securing reimbursement policies with payors by leveraging the high unmet need in CH, setting the stage for our expansion into migraine. Consistent with this strategy, we have structured our distribution around a pharma-like model, forming an essential piece of our proprietary stakeholder-connecting ecosystem. This ecosystem engages patients, physicians, insurance providers, and our specialty pharmacy in a network that offers these stakeholders:

- ***Physician ease of use.*** Physicians can enter prescriptions through a web-based interface engaging our trained care specialists to register new patients;
- ***Rapid prescription insurance adjudication.*** These care specialists work with our specialty pharmacy distributor to accelerate the insurance adjudication process, contacting the physician and/or the patient if additional information is required;
- ***Concierge patient engagement and personalized training.*** The specialty pharmacy contacts the patient to obtain the co-pay, ships gammaCore directly to the patient's home, reviews the contents of the shipment with the patient on delivery, trains the patient on gammaCore use, and follows up within 48 hours to answer any additional questions the patient may have; and
- ***Ongoing patient support.*** Care specialists follow up with patients every month to answer any questions, remind them of refills, and support compliance with the therapy.

A key feature of the highly connected ecosystem we have constructed is our HIPAA-compliant, cloud-based data warehouse. The web portal feature of this network enables unprecedented engagement with patients through which we can provide training and educational material, and offer interactive diaries that provide us real-time feedback. This interactive experience will be expanded to engage with patients through their smart phones, informing them of key information such as the distance they are from their gammaCore and the time to their next dose or refill. In the future, we intend to incorporate additional features that may allow the smartphone to assist patients with identification and/or prediction of their risk factors and triggers. The portal is designed to promote patient engagement and the ability for the ecosystem to improve treatment outcomes.

The logistics of gammaCore distribution are significantly more efficient than that of traditional pharmaceutical therapies. Pharmaceutical therapies are typically distributed through a multi-tiered supply chain involving wholesalers, warehoused supply centers, and individual pharmacy branches, all of which separate the patient from the manufacturer.

By connecting our proprietary data warehouse directly to the specialty pharmacies that distribute our therapy, gammaCore's distribution eliminates several tiers of the traditional supply chain. Each gammaCore can be refilled electronically through the delivery of unique digital authorization codes, which are maintained in this cloud-based warehouse. We provide these codes to these specialty pharmacies by permitting them access to our database, and to the patient through RFID cards programmed by the pharmacists we have trained. More specifically, following adjudication of the prescription and securing payment or payor authorization, these trained pharmacists are granted access to our cloud-based system and program an RFID card, in real-time, using a tablet computer that we provide. This digital warehouse has the capability to provide refill authorization codes directly from the warehouse to the patient through Bluetooth technology, further increasing the ease and efficiency of prescription refills by eliminating the need for RFID cards.

An important limitation of the traditional pharmaceutical distribution model is that manufacturers can only track prescriptions through the purchase of data from a third party, which is typically several months old, making real-time responsiveness impossible. Our system captures real-time information regarding the patient, therapy usage, and refill status. All sales and marketing data are completely

current, and available at a maximally granular level, enabling real-time decision-making. The build out of our specialty distribution channel will require specialized scanning hardware for use by our specialty pharmacy distributor and its network of specialty pharmacies, enhancements to our data warehouse including custom software, the training of specialty pharmacists who will distribute our therapy, and increased patient support for handling expected increases in patient volume. We also expect to create and develop patient and professional promotional tactics across multiple channels including social, digital, and print media.

In October 2016, we entered into a non-exclusive master services agreement for the provision of specialty pharmacy distribution services in the United States with Asembia LLC, or Asembia. Asembia provides us with access to its national network of specialty pharmacies and distribution services pursuant to one or more statements of work, or SOWs, arising under the agreement, including product stocking programs and integrated pharmacy dispensing systems, patient education and support, claims management and reimbursement assistance, professional compliance counseling and a patient hub services program with data capture and reporting capabilities. The agreement has an initial term of three years and is renewable automatically for successive one-year terms unless either party submits a termination notice at least 90 days prior to the end of the then-current term. We may terminate the agreement or all or any part of any SOW at any time upon 90 days' written notice to Asembia. The agreement may also be terminated for cause upon written notice to the other party in the event of a material breach that is uncured for 30 days following written notice of such deficiency. The agreement provides for customary transitional services in those instances where we elect to use another service provider or our own employees to perform the services.

Competition

While we believe that our proprietary gammaCore therapy provides us with competitive advantages, we face potential competition from many different sources, including pharmaceutical, biotechnology and other healthcare companies. In addition, academic institutions, governmental agencies and public and private research institutions are actively conducting research in overlapping fields of interest. Our gammaCore therapy will compete with existing therapies and therapies that may become available in the future.

We believe the key competitive factors affecting the success of our therapy are its safety, efficacy, convenience, price, the availability of generic drugs and the availability of coverage and reimbursement from government and other third-party payors.

Many of the companies we are competing with now, or with which we may compete in the future, have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals and marketing approved drugs than we do. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These competitors also compete with us in recruiting and retaining qualified scientific and management personnel and establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs.

In primary headache, we face competition from companies that develop and/or sell the following types of treatments:

Treatments for Cluster Headache

The most frequently used acute treatments for CH attacks are subcutaneous sumatriptan and inhaled oxygen. Alternative treatments include intranasal triptans and intravenous DHE. Only subcutaneous sumatriptan and intravenous DHE are approved in the United States for the acute treatment of CH. There are currently no FDA-approved commercially available medications for the prevention of CH. Medications that are used off-label include verapamil, lithium, and valproate.

Treatments for Migraine

The most frequently prescribed therapy for the acute treatment of migraine are oral or nasal triptans. Additional prescribed products include prescription strength NSAIDs. Small molecule CGRP receptor agonists are currently in Phase 3 development by Allergan plc and Biohaven Pharmaceuticals Inc. for the acute treatment of migraines. Certain classes of anti-epileptic medicine and beta-blocker medications have been approved by the FDA for the prevention of migraine. There is currently only one therapy approved for the prevention of chronic migraine, BOTOX marketed by Allergan plc. There are currently three antibodies to CGRP and its receptor in Phase 3 development for the prevention of migraine by Alder Biopharmaceuticals, Inc. Teva Pharmaceutical Industries Ltd., and Eli Lilly and Company, with a fourth product developed by Amgen Inc., which is in a co-marketing partnership with Novartis International AG, approved by the FDA in May 2018. There are a number of medical devices that have been marketed for the treatment of migraine, including Cefaly and the Spring TMS device.

Intellectual Property

We actively seek to protect the intellectual property and proprietary technology that we believe is important to our business, which includes seeking and maintaining patents covering our technology and products, proprietary processes and any other inventions that are commercially or strategically important to the development of our business. We also rely upon trademarks to build and maintain the integrity of our brand, and we seek to protect the confidentiality of trade secrets that may be important to the development of our business. For more information, please see “Risk Factors—Risks Related to Intellectual Property.”

Patents and Patent Applications

As of February 1, 2018, we held more than 140 patents and patent applications, including more than 70 issued U.S. patents, more than 25 U.S. patent applications, and more than 40 international patents and applications. All of our current issued patents are projected to expire between 2026 and 2033.

More specifically, our current therapy embodies a number of critical proprietary innovations, including a patented high-frequency burst signal that is capable of passing comfortably through the capacitance of the skin. In addition, our therapy utilizes a patented low pass filtration that substantially eliminates high frequency harmonics that would otherwise activate pain receptors in the skin. The combined result is a mild sensation that activates the target fibers in the cervical vagus nerve. While physically possible to administer electricity through the skin of the neck that will activate the same vagal fibers without these innovations, the intensity of pain receptor activation makes it virtually impossible to do so without causing unacceptably high pain levels.

Additionally, we have claims covering the methods of treating various headache conditions using our innovative therapy. We also have claims covering our innovative distribution capabilities, including the remote network-enabled communication for delivery of neuromodulation therapy for a broad range of medical conditions.

The term of individual patents depends on the legal term for patents in the countries in which they are granted. In most countries, including the United States, the patent term is generally 20 years from the earliest claimed filing date of a non-provisional patent application in the applicable country. We cannot assure you that patents will be issued from any of our pending applications or that, if patents are issued, they will be of sufficient scope or strength to provide meaningful protection for our technology. Notwithstanding the scope of the patent protection available to us, a competitor could develop treatment methods or devices that are not covered by our patents. Furthermore, numerous U.S. and foreign issued patents and patent applications owned by third parties exist in the fields in which we are developing

products. Because patent applications can take many years to issue, there may be applications unknown to us, which applications may later result in issued patents that our existing or future products or proprietary technologies may be alleged to infringe.

There has been substantial litigation regarding patent and other intellectual property rights in the medical device industry. In the future, we may need to engage in litigation to enforce our issued patents, to protect our trade secrets or know-how, to defend against claims of infringement of the rights of others or to determine the scope and validity of the proprietary rights of others. Litigation could be costly and could divert our attention from other functions and responsibilities. Adverse determinations in litigation could subject us to significant liabilities to third parties, could require us to seek licenses from third parties and could prevent us from manufacturing, selling or using our gammaCore products, any of which could severely harm our business.

Copyrights, Trademarks and Trade Secrets

The software programs associated with gammaCore and our proprietary ecosystem are protected by U.S. copyright law.

As of February 1, 2018, our trademark portfolio contained six U.S. trademark registrations, including electroCore®, gammaCore® and gammaCore Sapphire®, four pending U.S. trademark applications and one registered European trademark, electroCore®.

We also rely upon trade secrets, know-how and continuing technological innovation, and may pursue licensing opportunities in the future, to develop and maintain our competitive position. We seek to protect our proprietary rights through a variety of methods, including confidentiality agreements and proprietary information agreements with suppliers, employees, consultants and others who may have access to proprietary information, under which they are bound to assign to us inventions made during the term of their employment or term of service.

Government Regulation

United States

Our products and operations are subject to extensive and rigorous regulation by the U.S. Food and Drug Administration, or FDA, under the Federal Food, Drug, and Cosmetic Act, or FFDCA, and its implementing regulations, guidance documentation, and standards. Our gammaCore products are regulated by the FDA as medical devices. The FDA regulates the design, development, research, testing, manufacturing, safety, labeling, storage, recordkeeping, promotion, distribution, sale and advertising of medical devices in the United States to ensure that medical products distributed domestically are safe and effective for their intended uses. The FDA also regulates the export of medical devices manufactured in the United States to international markets. Any violations of these laws and regulations could result in a material adverse effect on our business, financial condition and results of operations. In addition, if there is a change in law, regulation or judicial interpretation, we may be required to change our business practices, which could have a material adverse effect on our business, financial condition and results of operations.

Under the FFDCA, medical devices are classified into one of three classes—Class I, Class II or Class III—depending on the degree of risk associated with each medical device and the extent of control needed to ensure safety and effectiveness.

Class I devices are those for which safety and effectiveness can be assured by adherence to FDA's "general controls" for medical devices, which include compliance with the applicable portions of the FDA's Quality System Regulation, or QSR, facility registration and product listing, reporting of adverse

medical events, and appropriate, truthful and non-misleading labeling, advertising, and promotional materials. Some Class I devices also require premarket clearance by the FDA through the 510(k) premarket notification process described below.

Class II devices are subject to FDA's general controls, and any other "special controls" deemed necessary by FDA to ensure the safety and effectiveness of the device, such as performance standards, product-specific guidance documents, special labeling requirements, patient registries or post-market surveillance. Premarket review and clearance by the FDA for Class II devices is accomplished through the 510(k) premarket notification procedure, though certain Class II devices are exempt from this premarket review process. When a 510(k) is required, the manufacturer must submit to the FDA a premarket notification submission demonstrating that the device is "substantially equivalent" to a legally marketed device, which in some cases may require submission of clinical data. Unless a specific exemption applies, 510(k) premarket notification submissions are subject to user fees. If the FDA determines that the device, or its intended use, is not substantially equivalent to a legally marketed device, the FDA will place the device, or the particular use of the device, into Class III, and the device sponsor must then fulfill much more rigorous premarketing requirements.

Class III devices, consisting of devices deemed by the FDA to pose the greatest risk, such as life-sustaining, life-supporting or implantable devices, or devices deemed not substantially equivalent to a predicate device. The safety and effectiveness of Class III devices cannot be assured solely by general or special controls. Submission and FDA approval of a premarket approval, or PMA, application is required before marketing of a Class III device can proceed. As with 510(k) submissions, unless subject to an exemption, PMA submissions are subject to user fees. The PMA process is much more demanding than the 510(k) premarket notification process. A PMA application, which is intended to demonstrate that the device is safe and effective, must be supported by extensive data, typically including data from preclinical studies and human clinical trials.

510(k) Clearance

To obtain 510(k) clearance for a medical device, an applicant must submit to the FDA a premarket notification submission demonstrating that the proposed device is "substantially equivalent" to a legally marketed device, known as a "predicate device." A legally marketed predicate device may include a device that was legally marketed prior to May 28, 1976 for which a PMA is not required (known as a "pre-amendments device" based on the date of enactment of the Medical Device Amendments of 1976), a device that has been reclassified from Class III to Class II or Class I, or a device that was found substantially equivalent through the 510(k) process. A device is substantially equivalent if, with respect to the predicate device, it has the same intended use and has either (i) the same technological characteristics, or (ii) different technological characteristics, but the information provided in the 510(k) submission demonstrates that the device does not raise new questions of safety and effectiveness and is at least as safe and effective as the predicate device. A showing of substantial equivalence sometimes, but not always, requires clinical data.

Before the FDA will accept a 510(k) submission for substantive review, the FDA will first assess whether the submission satisfies a minimum threshold of acceptability. If the FDA determines that the 510(k) submission is incomplete, the FDA will issue a "Refuse to Accept" letter which generally outlines the information the FDA believes is necessary to permit a substantive review and to reach a determination regarding substantial equivalence. An applicant must submit the requested information before the FDA will proceed with additional review of the submission. Once the 510(k) submission is accepted for review, by regulation, the FDA has 90 days to review and issue a determination. As a practical matter, clearance often takes longer. The FDA may require additional information, including clinical data, to make a determination regarding substantial equivalence.

If the FDA agrees that the device is substantially equivalent to a predicate device currently on the market, it will grant 510(k) clearance to commercially market the device. If the FDA determines that the device is "not substantially equivalent" to a previously cleared device, the device is automatically designated as a Class III device. The device sponsor must then fulfill more rigorous PMA requirements, or can request a risk-based classification determination for the device in accordance with the "de novo" process, which is a route to market for novel medical devices that are low to moderate risk and are not substantially equivalent to a predicate device.

After a device receives 510(k) marketing clearance, any modification that could significantly affect its safety or effectiveness, or that would constitute a major change or modification in its intended use, will require a new 510(k) marketing clearance or, depending on the modification, PMA approval. The determination as to whether or not a modification could significantly affect the device's safety or effectiveness is initially left to the manufacturer using available FDA guidance. Many minor modifications today are accomplished by a "letter to file" in which the manufacture documents the rationale for the change and why a new 510(k) is not required. However, the FDA may review such letters to file to evaluate the regulatory status of the modified product at any time and may require the manufacturer to cease marketing and recall the modified device until 510(k) clearance or PMA approval is obtained. The manufacturer may also be subject to significant regulatory fines or penalties.

PMA Approval

A PMA must be submitted to the FDA for any device that is classified in Class III or otherwise cannot be cleared through the 510(k) process (although the FDA has discretion to continue to allow certain pre-amendment Class III devices to use the 510(k) process). PMA applications must be supported by, among other things, valid scientific evidence demonstrating the safety and effectiveness of the device, which typically requires extensive data, including technical, preclinical, clinical and manufacturing data. The PMA must also contain a full description of the device and its components, a full description of the methods, facilities, and controls used for manufacturing, and proposed labeling. Following receipt of a PMA application, once the FDA determines that the application is sufficiently complete to permit a substantive review, the FDA will formally accept the application for review. The FDA, by statute and by regulation, has 180-days to review an "accepted" PMA application, although the review of an application more often occurs over a significantly longer period of time, and can take up to several years. During the review period, the FDA will typically request additional information or clarification of the information already provided. Also, an advisory panel of experts from outside the FDA may be convened to review and evaluate the application and provide recommendations to the FDA as to the approvability of the device. The FDA may or may not accept the panel's recommendation. In addition, the FDA will generally conduct a pre-approval inspection of the manufacturing facility or facilities to ensure compliance with the QSR.

If the FDA evaluations of both the PMA application and the manufacturing facilities are favorable, the FDA will either issue an approval letter or an approvable letter, which usually contains a number of conditions that must be met in order to secure final approval of the PMA. If the FDA's evaluation of the PMA or manufacturing facilities is not favorable, the FDA will deny approval of the PMA or issue a not approvable letter. A not approvable letter will outline the deficiencies in the application and, where practical, will identify what is necessary to make the PMA approvable. The FDA may also determine that additional clinical trials are necessary, in which case the PMA approval may be delayed for several months or years while the trials are conducted. Once granted, PMA approval may be withdrawn by the FDA if compliance with post-approval requirements, conditions of approval or other regulatory standards is not maintained or problems are identified following initial marketing.

In approving a PMA the FDA may also require some form of post-market surveillance when necessary to protect the public health or to provide additional safety and effectiveness data for the device. In such

cases, the manufacturer might be required to follow certain patient groups for a number of years and makes periodic reports to the FDA on the clinical status of those patients.

New PMAs or PMA supplements are required for modifications that affect the safety or effectiveness of a PMA-approved device, including, for example, certain types of modifications to the device's indication for use, manufacturing process, labeling and design. PMA supplements often require submission of the same type of information as a PMA, except that the supplement is limited to information needed to support any changes from the device covered by the original PMA and may not require as extensive clinical data or the convening of an advisory panel.

De Novo Classification

Medical device types that the FDA has not previously classified as Class I, II or III are automatically classified into Class III regardless of the level of risk they pose. The Food and Drug Administration Modernization Act of 1997 established a new route to market for low to moderate risk medical devices that are automatically placed into Class III due to the absence of a predicate device, called the "Request for Evaluation of Automatic Class III Designation," or the *de novo* classification procedure. This procedure allows a manufacturer whose novel device is automatically classified into Class III to request down-classification of its medical device into Class I or Class II on the basis that the device presents low or moderate risk, rather than requiring the submission and approval of a PMA application. Prior to the enactment of the Food and Drug Administration Safety and Innovation Act of 2012, or the FDASIA, a medical device could only be eligible for *de novo* classification if the manufacturer first submitted a 510(k) premarket notification and received a determination from the FDA that the device was not substantially equivalent. FDASIA streamlined the *de novo* classification pathway by permitting manufacturers to request *de novo* classification directly without first submitting a 510(k) premarket notification to the FDA and receiving a not substantially equivalent determination. Under FDASIA, the FDA is required to classify the device within 120 days following receipt of the *de novo* application. If the manufacturer seeks reclassification into Class II, the manufacturer must include a draft proposal for special controls that are necessary to provide a reasonable assurance of the safety and effectiveness of the medical device. In addition, the FDA may reject the reclassification petition if it identifies a legally marketed predicate device that would be appropriate for a 510(k) or determines that the device is not low to moderate risk or that general controls would be inadequate to control the risks and special controls cannot be developed.

In March 2014 we filed a pre-submission package with the FDA requesting a meeting to discuss the viability of using the *de novo* pathway to gain authorization to commercialize our gammaCore product for an initial indication in CH. In June 2014, FDA met with us and confirmed that the *de novo* pathway would be appropriate for our submission. In October 2014 we filed our initial *de novo* application with FDA. As is customary for many applications for commercial approval (Class II or Class III), FDA in a letter to us in May 2015 denied our initial application stating that our initial filing did not yet support a *de novo* clearance based on the information in the initial filing. In June 2015 we participated in an in person meeting with FDA representatives to discuss the issues raised by the FDA in its May 2015 denial letter. In October 2015, based on our June 2015 meeting with FDA, we resubmitted our *de novo* application with two proposed indications: (i) acute treatment of eCH; and (ii) prophylactic treatment of cCH. In February 2016, we received a letter from FDA indicating that our *de novo* application, with some further requested re-analysis, included sufficient data to support *de novo* classification and clearance of gammaCore for at least one indication. We performed and submitted to the FDA the requested re-analysis in March 2016 and, following additional correspondence and meetings with FDA, in April 2017, FDA approved our *de novo* classification request and cleared our gammaCore therapy in the United States for the acute treatment of pain associated with eCH in adults.

Based on this approval, of our *de novo* classification request, gammaCore has been down classified to Class II under a new Class II device regulatory category for non-invasive cervical vagus nerve stimulators

for the treatment of headache. The establishment of this category created a 510(k) regulatory pathway for the potential expansion of the gammaCore label to include acute treatment and/or prevention of pain associated with migraine and cCH, as well as acute treatment and/or prevention of other primary and secondary headaches. In January 2018, the FDA cleared gammaCore for acute treatment of pain associated with migraine headaches in adult patients, and we have conducted several additional clinical studies with a view to supporting additional label expansion.

Additionally, we anticipate utilizing the *de novo* classification process to obtain marketing authorization for our product candidates under development outside the headache field.

Clinical Studies

When FDA clearance or approval of a Class I, Class II or Class III device requires human clinical trials, and if the device presents a "significant risk" to human health, the device sponsor is required to file an IDE application with the FDA and obtain IDE approval prior to commencing the human clinical trial. If the device is considered a "non-significant risk," IDE submission to FDA is not required. Instead, only approval from the Institutional Review Board, or IRB, overseeing the investigation at each clinical trial site is required. Human clinical studies are generally required in connection with approval of Class III devices and may be required for Class I and II devices. The FDA or the IRB at each institution at which a clinical trial is being performed may suspend a clinical trial at any time for various reasons, including a belief that the subjects are being exposed to an unacceptable health risk. Even if a trial is completed, the results of clinical testing may not adequately demonstrate the safety and efficacy of the device or may otherwise not be sufficient to obtain FDA clearance or approval to market the product in the United States.

Continuing Regulation

After a device is placed on the market, numerous regulatory requirements apply. These include:

- Product listing and establishment registration, which helps facilitate FDA inspections and other regulatory action;
- QSR, which requires manufacturers, including third-party manufacturers, to follow stringent design, testing, control, documentation and other quality assurance procedures during all aspects of the design and manufacturing process;
- labeling regulations and FDA prohibitions against the promotion of products for uncleared or unapproved "off-label" uses;
- clearance of product modifications that could significantly affect safety or efficacy or that would constitute a major change in intended use of one of our cleared devices;
- approval of product modifications that affect the safety or effectiveness of one of our approved devices;
- medical device reporting regulations, which require that manufacturers comply with FDA requirements to report if their device may have caused or contributed to a death or serious injury, or has malfunctioned in a way that would likely cause or contribute to a death or serious injury if the malfunction of the device or a similar device were to recur;
- post-approval restrictions or conditions, including post-approval study commitments;
- post-market surveillance regulations, which apply when necessary to protect the public health or to provide additional safety and effectiveness data for the device;
- the FDA's recall authority, whereby it can ask, or under certain conditions order, device manufacturers to recall from the market a product that is in violation of governing laws and regulations;

- regulations pertaining to voluntary recalls; and
- notices of corrections or removals.

Advertising and promotion of medical devices, in addition to being regulated by the FDA, are also regulated by the Federal Trade Commission and by state regulatory and enforcement authorities. Recently, promotional activities for FDA-regulated products of other companies have been the subject of enforcement action brought under healthcare reimbursement laws and consumer protection statutes. In addition, under the federal Lanham Act and similar state laws, competitors and others can initiate litigation relating to advertising claims. If the FDA determines that our promotional materials or training constitutes promotion of an unapproved or uncleared use, it could request that we modify our training or promotional materials or subject us to regulatory or enforcement actions. It is also possible that other federal, state or foreign enforcement authorities might take action if they consider our promotional or training materials to constitute promotion of an unapproved or uncleared use, which could result in significant fines or penalties under other statutory authorities, such as laws prohibiting false claims for reimbursement. In that event, our reputation could be damaged and adoption of the products would be impaired.

Furthermore, our products could be subject to voluntary recall if we or the FDA determine, for any reason, that our products pose a risk of injury or are otherwise defective. Moreover, the FDA can order a mandatory recall if there is a reasonable probability that our gammaCore therapy would cause serious adverse health consequences or death.

The FDA has broad post-market and regulatory enforcement powers. We are subject to unannounced inspections by the FDA to determine our compliance with the QSR and other regulations, and these inspections may include the manufacturing facilities of some of our subcontractors. Failure by us or by our suppliers to comply with applicable regulatory requirements can result in enforcement action by the FDA or other regulatory authorities, which may result in sanctions including, but not limited to:

- untitled letters, warning letters, fines, injunctions, consent decrees and civil penalties;
- unanticipated expenditures to address or defend such actions
- customer notifications for repair, replacement, refunds;
- recall, detention or seizure of our products;
- operating restrictions or partial suspension or total shutdown of production;
- refusing or delaying our requests for 510(k) clearance or PMA approval of new products or modified products;
- operating restrictions;
- withdrawing 510(k) clearances or PMA approvals that have already been granted;
- refusal to grant export approval for our products; or
- criminal prosecution.

To date, our facility has not been inspected by the FDA.

International

Our international sales are subject to regulatory requirements in the countries in which our products are sold. The regulatory review process varies from country to country and may in some cases require the submission of clinical data.

We have received CE Mark approval in Europe for our gammaCore therapy to treat, among other indications, primary headaches, including migraines, and asthma.

In the EEA, gammaCore must comply with the Essential Requirements laid down in Annex I to Directive 93/42/EEC on the approximation of the laws of the Member States relating to medical devices or the EU Medical Devices Directive. Compliance with these requirements is a prerequisite to be able to affix the CE mark to gammaCore, without which they cannot be marketed or sold in the EEA. To demonstrate compliance with the Essential Requirements and obtain the right to affix the CE Mark medical devices manufacturers must undergo a conformity assessment procedure, which varies according to the type of medical device and its classification. Except for low risk medical devices (Class I with no measuring function and which are not sterile), where the manufacturer can issue an EC Declaration of Conformity based on a self-assessment of the conformity of its products with the Essential Requirements, a conformity assessment procedure requires the intervention of a Notified Body, which is an organization designated by a competent authority of an EEA country to conduct conformity assessments. Depending on the relevant conformity assessment procedure, the Notified Body would audit and examine the Technical File and the quality system for the manufacture, design and final inspection of the medical devices. The Notified Body issues a CE Certificate of Conformity following successful completion of a conformity assessment procedure conducted in relation to the medical device and its manufacturer and their conformity with the Essential Requirements. This Certificate entitles the manufacturer to affix the CE mark to its medical devices after having prepared and signed a related EC Declaration of Conformity.

As a general rule, demonstration of conformity of medical devices and their manufacturers with the Essential Requirements must be based, among other things, on the evaluation of clinical data supporting the safety and performance of the products during normal conditions of use. Specifically, a manufacturer must demonstrate that the device achieves its intended performance during normal conditions of use and that the known and foreseeable risks, and any adverse events, are minimized and acceptable when weighed against the benefits of its intended performance, and that any claims made about the performance and safety of the device (e.g., product labeling and instructions for use) are supported by suitable evidence. This assessment must be based on clinical data, which can be obtained from (1) clinical studies conducted on the devices being assessed, (2) scientific literature from similar devices whose equivalence with the assessed device can be demonstrated or (3) both clinical studies and scientific literature. With respect to Class III devices, the manufacturer must conduct clinical studies to obtain the required clinical data, unless reliance on existing clinical data from equivalent devices can be justified. The conduct of clinical studies in the EEA is governed by detailed regulatory obligations. These may include the requirement of prior authorization by the competent authorities of the country in which the study takes place and the requirement to obtain a positive opinion from a competent Ethics Committee. This process can be expensive and time-consuming.

Moreover, in May 2017, the EU Medical Devices Regulation (Regulation 2017/745) was adopted. The EU Medical Devices Regulation repeals and replaces the EU Medical Devices Directive. Unlike directives, which must be implemented into the national laws of the EEA Member States, the regulations would be directly applicable, i.e., without the need for adoption of EEA Member State laws implementing them, in all EEA member States and are intended to eliminate current differences in the regulation of medical devices among EEA member States. The EU Medical Devices Regulation, among other things, is intended to establish a uniform, transparent, predictable and sustainable regulatory framework across the EEA for medical devices and ensure a high level of safety and health while supporting innovation. The EU Medical Devices Regulation will however only become applicable three years after publication (in May 2020). Once applicable, the new regulations will among other things:

- strengthen the rules on placing devices on the market and reinforce surveillance once they are available;
- establish explicit provisions on manufacturers' responsibilities for the follow-up of the quality, performance and safety of devices placed on the market;

- improve the traceability of medical devices throughout the supply chain to the end-user or patient through a unique identification number;
- set up a central database to provide patients, healthcare professionals and the public with comprehensive information on products available in the EU;
- strengthened rules for the assessment of certain high-risk devices which may have to undergo an additional check by experts before they are placed on the market.

Other Regulations

We are also subject to healthcare fraud and abuse regulation in the jurisdictions in which we will conduct our business. These laws include, without limitation, applicable anti-kickback, false claims, physician sunshine and patient privacy and security laws and regulations.

Anti-Kickback Statute: The federal Anti-Kickback Statute prohibits, among other things, persons or entities from knowingly and willfully soliciting, offering, receiving or paying any remuneration, directly or indirectly, overtly or covertly, in cash or in kind, in exchange for or to induce either the referral of an individual for, or the purchase, lease, order or recommendation of, any good, facility, item or service for which payment may be made, in whole or in part, under federal healthcare programs such as Medicare and Medicaid. The federal Anti-Kickback Statute is broad and prohibits many arrangements and practices that are lawful in businesses outside of the healthcare industry. The term "remuneration" includes kickbacks, bribes, or rebates and also has been broadly interpreted to include anything of value, including for example, gifts, discounts, the furnishing of supplies or equipment, credit arrangements, payments of cash, waivers of payments, ownership interests, relieving a referral source of a financial or administrative burden and providing anything at less than its fair market value. In addition, longstanding OIG guidance makes clear that the opportunity for a referring physician to earn a profit, including through an investment in an entity for which he or she generates business, could constitute illegal remuneration under the Anti-Kickback Statute. The Anti-Kickback Statute is violated if even one purpose of the remuneration is to induce such referrals.

There are a number of narrow statutory exceptions and regulatory safe harbors protecting certain defined business arrangements from prosecution under the federal Anti-Kickback Statute. These statutory exceptions and safe harbors set forth provisions that, if all their applicable requirements are met, will assure healthcare providers and other parties that they may not be prosecuted under the federal Anti-Kickback Statute. The failure of a transaction or arrangement to fit precisely within one or more applicable statutory exceptions or safe harbors does not necessarily mean that it is illegal or that prosecution will be pursued. However, conduct and business arrangements that do not fully satisfy all requirements of an applicable safe harbor may result in increased scrutiny by government enforcement authorities and will be evaluated on a case-by-case basis based on a cumulative review of all of its facts and circumstances. Further, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation. In addition, the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the federal civil False Claims Act which is discussed below. Penalties for violations of the Anti-Kickback Statute include, but are not limited to, civil monetary penalties up to $74,792 (and adjusted for inflation) for each violation, plus up to three times the remuneration involved, criminal fines of up to $100,000 and imprisonment of up to 10 years, disgorgement, individual imprisonment, possible exclusion from Medicare, Medicaid and other federal healthcare programs, and the curtailment or restructuring of operations.

In the event that third-party payors require us to be a DME supplier or we sell our products directly to providers who are DME suppliers that submit claims to such payors, we may be subject to the federal Stark physician self-referral law, which prohibits a physician from making a referral for certain

designated health services covered by the Medicare program, including DME, if the physician or an immediate family member has a financial relationship with the entity providing the designated health services, and prohibits that entity from billing or presenting a claim for the designated health services furnished pursuant to the prohibited referral, unless an exception applies. Sanctions for violating the Stark Law include denial of payment, civil monetary penalties of up to $24,253 (and adjusted for inflation) per claim submitted and exclusion from the federal health care programs. Failure to refund amounts received as a result of a prohibited referral on a timely basis may constitute a false or fraudulent claim and may result in civil penalties and additional penalties under the FCA. The statute also provides for a penalty of up to $161,692 (and adjusted for inflation) for a circumvention scheme. Various states also have corollary laws to the Stark Law, including laws that require physicians to disclose any financial interest they may have with a healthcare provider to their patients when referring patients to that provider. Both the scope and exceptions for such laws vary from state to state.

Federal Civil False Claims Act: The federal civil False Claims Act prohibits, among other things, persons or entities from knowingly presenting or causing to be presented a false or fraudulent claim for, or the knowing use of false statements to obtain, payment of federal funds. In addition, private individuals have the ability to bring actions under the civil False Claims Act in the name of the government alleging false and fraudulent claims presented to or paid by the government (or other violations of the statutes) and to share in any amounts paid by the entity to the government in fines or settlement. Such suits, known as qui tam actions, have increased significantly in the healthcare industry in recent years. Manufacturers can be held liable under these laws if they are deemed to "cause" the submission of false or fraudulent claims by, for example, providing inaccurate billing or coding information to customers or promoting a product off-label. Penalties for a federal civil False Claims Act violation include three times the actual damages sustained by the government, plus mandatory civil penalties of between from $11,181 to $22,363 (and adjusted for inflation) for each false claim, plus treble damages, the potential for exclusion from participation in federal healthcare programs. The majority of states also have statutes or regulations similar to the federal Anti-Kickback and False Claims Act, which apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payor.

Civil Monetary Penalties. The Civil Monetary Penalty Act of 1981 imposes penalties against any person or entity that, among other things, is determined to have presented or caused to be presented a claim to a federal healthcare program that the person knows or should know is for an item or service that was not provided as claimed or is false or fraudulent, or offering or transferring remuneration to a federal healthcare beneficiary that a person knows or should know is likely to influence the beneficiary's decision to order or receive items or services reimbursable by the government from a particular provider or supplier.

Federal Healthcare Fraud Laws. Other federal healthcare fraud-related laws also provide criminal liability for violations. The Criminal Healthcare Fraud statute (18 U.S.C. § 1347) prohibits knowingly and willfully executing a scheme to defraud any healthcare benefit program, including private third-party payors. Federal criminal law at 18 U.S.C. § 1001, among other sections, prohibits knowingly and willfully falsifying, concealing, or covering up a material fact or making any materially false, fictitious, or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items, or services.

Health Insurance Portability and Accountability Act of 1996: The federal Health Insurance Portability and Accountability Act, or HIPAA, created several new federal crimes, including healthcare fraud and false statements relating to healthcare matters. The healthcare fraud statute prohibits knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program, including private third-party payors. The false statements statute prohibits knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or

services. Similar to the federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation.

In addition, HIPAA and its implementing regulations established uniform standards for certain covered entities, which are healthcare providers, health plans and healthcare clearinghouses, as well as their business associates and subcontractors, governing the conduct of specified electronic healthcare transactions and protecting the security and privacy of protected health information. HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH created four new tiers of civil monetary penalties and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorneys' fees and costs associated with pursuing federal civil actions. Additionally, certain states have adopted comparable privacy and security laws and regulations, some of which may be more stringent than HIPAA and HITECH.

The Federal Physician Payments Sunshine Act: The federal Physician Payments Sunshine Act requires certain manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program, with certain exceptions, to report annually to the Centers for Medicare & Medicaid Services, or CMS, information related to "payments or other transfers of value" made to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, and to report annually to CMS certain ownership and investment interests held by physicians and their immediate family members. Failure to submit required information may result in civil monetary penalties of $11,052 per failure up to an aggregate of $165,786 per year (or up to an aggregate of $1.105 million per year for "knowing failures"), for all payments, transfers of value or ownership or investment interests that are not timely, accurately, and completely reported in an annual submission, and may result in liability under other federal laws or regulations. Certain states also require device manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures, require pharmaceutical companies to comply with the industry's voluntary compliance guidelines and the applicable compliance guidance promulgated by the U.S. federal government, or otherwise restrict payments that may be made to healthcare providers and other potential referral sources.

EU Data Protection Legislation: We are subject to laws and regulations in non-U.S. countries covering data privacy and the protection of health-related and other personal information. EU member states and other jurisdictions have adopted data protection laws and regulations, which impose significant compliance obligations. For example, the EU Data Protection Directive, as implemented into national laws by the EU member states, imposes strict obligations and restrictions on the ability to collect, analyze and transfer personal data, including health data from clinical trials and adverse event reporting. Failing to comply with these laws could lead to government enforcement actions and significant penalties against us, and adversely impact our operating results. The EU General Data Protection Regulation, or GDPR, will become applicable on May 25, 2018 and will replace the EU Data Protection Directive. Unlike the Directive (which needed to be implemented by national laws), the GDPR is directly applicable in each EU Member State, resulting in a more uniform application of data privacy laws across the EU. The GDPR imposes stricter requirements and onerous accountability obligations on companies that process personal data, especially if they process sensitive personal data (such as data concerning health). Fines for non-compliance with the GDPR will be significant – up to € 20 million or 4% of global turnover, whichever is higher.

The Foreign Corrupt Practices Act: The Foreign Corrupt Practices Act, or FCPA, prohibits any U.S. individual or business from paying, offering, or authorizing payment or offering of anything of value, directly or indirectly, to any foreign official, political party or candidate for the purpose of influencing any act or decision of the foreign entity in order to assist the individual or business in obtaining or retaining business. The FCPA also obligates companies whose securities are listed in the United States to comply with accounting provisions requiring the company to maintain books and

records that accurately and fairly reflect all transactions of the corporation, including international subsidiaries, and to devise and maintain an adequate system of internal accounting controls for international operations.

Healthcare Reform

The United States and some foreign jurisdictions are considering or have enacted a number of legislative and regulatory proposals to change the healthcare system in ways that could affect our ability to sell our products profitably. Among policy makers and payors in the United States and elsewhere, there is significant interest in promoting changes in healthcare systems with the stated goals of containing healthcare costs, improving quality or expanding access. Current and future legislative proposals to further reform healthcare or reduce healthcare costs may limit coverage of or lower reimbursement for our products. The cost containment measures that payors and providers are instituting and the effect of any healthcare reform initiative implemented in the future could impact our revenue from the sale of our products.

The implementation of the Affordable Care Act in the United States, for example, has changed healthcare financing and delivery by both governmental and private insurers substantially, and affected medical device manufacturers significantly. The Affordable Care Act imposed, among other things, a new federal excise tax on the sale of certain medical devices, which, through a series of legislative amendments, was suspended for 2016 through 2019, and which, absent further legislative action, will be reinstated on medical device sales starting January 1, 2020; provided incentives to programs that increase the federal government's comparative effectiveness research, and implemented payment system reforms including a national pilot program on payment bundling to encourage hospitals, physicians and other providers to improve the coordination, quality and efficiency of certain healthcare services through bundled payment models. Additionally, the Affordable Care Act has expanded eligibility criteria for Medicaid programs and created a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research. We do not yet know the full impact that the Affordable Care Act will have on our business. There have been judicial and Congressional challenges to certain aspects of the Affordable Care Act, and we expect additional challenges and amendments in the future. Moreover, the Trump Administration and the U.S. Congress may take further action regarding the Affordable Care Act, including, but not limited to, repeal or replacement. Most recently, the Tax Cuts and Jobs Acts was enacted, which, among other things, removes penalties for not complying with the individual mandate to carry health insurance beginning in 2019.

In addition, other legislative changes have been proposed and adopted since the Affordable Care Act was enacted. For example, the Budget Control Act of 2011, among other things, included reductions to Medicare payments to providers of 2% per fiscal year, which went into effect on April 1, 2013 and, due to subsequent legislative amendments to the statute, will remain in effect through 2027 unless additional Congressional action is taken. Additionally, the American Taxpayer Relief Act of 2012, among other things, reduced Medicare payments to several providers, including hospitals, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

We expect additional state and federal healthcare reform measures to be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare products and services, which could result in reduced demand for our products or additional pricing pressure.

Employees

As of May 21, 2018, we employed 64 full-time employees. Substantially all of our employees are located in Basking Ridge, New Jersey. None of our employees are represented by a labor union or covered by a collective bargaining agreement. We consider our relationship with our employees to be good.

Facilities

Our principal offices occupy approximately 25,000 square feet of leased office space in Basking Ridge, New Jersey, pursuant to a lease agreement that expires in April 30, 2022. We believe that our current facilities are suitable and adequate to meet our current needs. We may in the future add new facilities or expand existing facilities as we add employees, and we believe that suitable additional or substitute space will be available as needed to accommodate any such expansion of our operations.

Legal Proceedings

From time to time we may become involved in various legal proceedings, including those that may arise in the ordinary course of business. Although the outcomes of these legal proceedings cannot be predicted with certainty, other than as set forth below, we are not subject to any material legal proceedings.

On May 11, 2018, Madison Global Partners, a division of Trident Partners, Ltd., or Madison Global, filed a complaint against us in the Supreme Court of the State of New York, County of New York (Index No. 652329/2018). We are party to an engagement letter, as amended, with Madison Global pursuant to which it acted as our financial advisor. Madison Global has claimed that under the terms of the engagement letter, as amended, it is owed $575,000 plus warrants to purchase additional shares of our capital stock beyond those we have agreed to issue to it. The Company believes it has paid all amounts due to Madison Global under the terms of the engagement letter, as amended. While the Company believes that it has substantial legal and factual defenses to the claims in this lawsuit and intends to vigorously defend the case and may consider bringing counterclaims against Madison Global, the outcome of the litigation is difficult to predict and quantify at this time.

Glossary

“a7nAChR” refers to a receptor, specifically the alpha 7 nicotinic ACh receptor, that resides on the surface of many cell types, including macrophages and microglia, the dominant immune cell of the brain. Activation of this receptor by neurotransmitters, including acetylcholine, has been shown to cause a change in the inflammation state mediated by these cells, which has led to this immune modulatory pathway being referred to as “the cholinergic anti-inflammatory pathway”, or “CAP”.

“ACh” means acetylcholine, which is a neurotransmitter released by certain neurons in the brain and by the vagus nerve. ACh is also released by a class of immune cells in response to certain stimuli.

“CAP” means the cholinergic anti-inflammatory pathway, which is an autonomic reflex that inhibits the release of pro-inflammatory proteins called cytokines involving signaling in the vagus nerve, the release of acetylcholine and the activation of alpha 7 nicotinic ACh receptors.

“CGRP” means calcitonin gene–related peptide, which is a protein produced by, and released by neurons. CGRP activates other neurons that are involved in pain perception. CGRP is also known to be a powerful vasodilator, causing dilation of blood vessels.

“CH” means cluster headache, which is a headache disorder in which patients experience attacks of severe head pain, typically centered around the eye on one side, which occur from once every other day to eight times a day for a period that may last for a week, months or years. The attacks typically last 15 minutes to 180 minutes and the pain is typically associated tearing, eyelid dropping, sweating, congestion and/or runny nose.

“cCH” means chronic CH, which is a classification of CH defined by CH attacks occurring for more than one year without remission, or with remission periods lasting less than three months.

“CSD” means cortical spreading depression, which is a slow moving, self-propagated wave of depolarization of neurons and glial cells that spreads across the brain.

“eCH” means episodic CH, which is a classification of CH defined by CH attacks occurring in periods lasting from seven days to one year, separated by pain-free periods lasting at least three months.

“DAS” means disease activity score, which is an assessment used to measure rheumatoid arthritis (RA) disease activity, to determine whether the signs and symptoms have reduced or stopped, and if treatment needs to be adjusted.

“DHE” means dihydroergotamine, which is a medication indicated for medically refractory migraine headaches. Its therapeutic activity has been attributed to activity against certain serotonin receptors, and has potent vasoconstricting effects on intracranial blood vessels.

“EEG” means electroencephalography, which involves the measurement and recording of electrical activity in the brain.

“functional magnetic resonance imaging” is an imaging technique that allows for, among other things, the measurement of brain activity through the detection of changes in blood oxygenation and flow that occur in response to neuronal activity.

“GABA” means gamma-aminobutyric acid, which is one of the primary inhibitory neurotransmitters in the brain.

“IL-1ß“means interleukin-1 beta, which is a pro-inflammatory cytokine involved in immune responses.

“LC” means locus coeruleus, which is a small region of the brainstem that is the sole source of norepinephrine in the brain.

“magnetoencephalography” is an imaging technique utilizing superconducting coils to measure the tiny magnetic fields generated by nerve activity within the brain from outside the skull.

“MTX” means methotrexate, which is an immunosuppressive medication, originally used in oncology, and now used widely as a first line treatment for rheumatoid arthritis (RA) and related inflammatory disorders.

“nVNS” means noninvasive vagus nerve stimulation, which is a therapy employing the modulation of signals carried along certain fibers in the cervical vagus nerve which is achieved by the delivery of electric signals passed through the skin without physically penetrating the body.

“NRM” means the nucleus raphe magnus, which is a structure in the brainstem that is a major component in the endogenous pain inhibitory system and that produces and releases serotonin.

“PAG” means the periaqueductal gray, which is a structure in the brainstem that is a major component in the endogenous pain inhibitory system and that produces and releases the neurotransmitter GABA.

“PTH” means post-traumatic headache, which is a headache condition resembling migraine that results from a traumatic head injury.

“RA” means rheumatoid arthritis, which is a common autoimmune disease characterized by chronic joint inflammation leading to pain, swelling, and ultimately the degeneration of cartilage and bone within the affected joint.

“SN” means the substantia nigra, which is a large midbrain structure that can be divided into two parts, one of which synthesizes and releases a neurotransmitter called dopamine, and the other of which synthesizes and releases the neurotransmitter GABA neurons.

“SPG” means sphenopalatine ganglion, which is a nerve bundle behind the bony structure of the nose that connects to the nerves in and around the eye socket. Activity in the SPG has been associated with CH.

“TCC” means the trigeminal cervical complex, which is a region of the brainstem that serves as a primary center and relay for pain, having inputs known to be associated with the generation and perception of head pain.

“TNF-a” means tumor necrosis factor alpha, which is a pro-inflammatory protein, or cytokine, involved in inflammatory events, and is associated with both the initiation and conclusion of inflammatory processes.

“VNS” means vagus nerve stimulation, which is a therapy involving the triggering of signals within certain fibers of the vagus nerve known to alter biologic function through the promotion of neurotransmitter release.

MANAGEMENT

The following table sets forth the name, age as of May 10, 2018 and position of the individuals who currently serve as executive officers, directors and key employees of Electrocore, LLC, and are expected to continue to serve as the executive officers, directors and key employees of electroCore, Inc. following the corporate conversion and the completion of this offering. The following also includes certain information regarding the individual experience, qualifications, attributes and skills of our executive officers, directors and key employees, as well as brief statements of those aspects of our directors' backgrounds that led us to conclude that they are qualified to serve as directors.

Name	Age	Position(s)
***Executive officers*:**		
Francis R. Amato	54	Chief Executive Officer and Director
Joseph P. Errico	49	Chief Science and Strategy Officer and Chairman of the Board
Peter S. Staats, M.D.	54	Chief Medical Officer
Glenn S. Vraniak	55	Chief Financial Officer
Key employees:		
Roland D. Duhart	60	Chief Commercial Officer
Eric J. Liebler	54	Senior Vice President, Neurology
Steven M. Mendez	57	Chief Technical Officer
Michael Romaniw	61	Vice President, Quality Assurance
Bruce J. Simon, Ph.D.	68	Vice President, Research
***Non-employee directors*:**		
Michael G. Atieh	64	Director Designee*
Nicholas Colucci	58	Director
Thomas J. Errico, M.D.	66	Director
Trevor J. Moody	53	Director
Stephen L. Ondra, M.D.	61	Director Designee*
Michael W. Ross	46	Director**
David M. Rubin, Ph.D.	53	Director**
James L.L. Tullis	71	Director

* Will assume office as an independent director upon the effectiveness of the registration statement to which this prospectus is a part.
** Will resign at or prior to the effectiveness of the registration statement to which this prospectus is a part.

Executive Officers

Francis R. Amato has served as our Chief Executive Officer since July 2016, and as a member of our board of directors since June 2017. Mr. Amato previously served as our Chief Operating Officer from July 2012 through July 2016. Prior to joining our company, he spent 22 years within the pharmaceutical industry, most recently as Vice President of the Specialty Commercial Operations Group, Global Human Health at Merck & Co. Before joining Merck, Mr. Amato gained extensive commercial experience as Executive Director, Global Business Operations at Schering-Plough, Business Unit Lead, Oncology at Ligand Pharmaceuticals, National Sales Director, Specialty Managed Markets at Pfizer Inc. and National Sales Director, Hospitals at Pharmacia Corporation. Prior to joining the pharmaceutical industry, Mr. Amato was an Infantry Medic in the 82nd Airborne Division of the United States Army. Mr. Amato received his B.A. in Political Science from St. John's University and his Executive MBA from Pepperdine University's Graziadio School of Management. Our board of directors believes that Mr. Amato's extensive senior management experience in the pharmaceutical industry qualifies him for service on our board of directors.

Joseph P. Errico has served as our Chief Science and Strategy Officer since July 2016, and previously served as our Chief Executive Officer from January 2010 to July 2016. Mr. Errico has also served as a

member of our board of directors since 2005, when he co-founded our company with Thomas J. Errico and Peter S. Staats, and as chairman of our board of directors since March 2013. Prior to founding our company, Mr. Errico served as the General Manager of the Motion Preservation Unit of Stryker Spine, a Division of Stryker Corporation, from August 2004 through December 2007. Prior to that, Mr. Errico co-founded and served as the Chief Executive Officer and director for Spinecore, Inc., from September 2001 through August 2004, when that company was sold to Stryker Corporation. Mr. Errico received his B.S. in Aeronautical Engineering from the Massachusetts Institute of Technology, his M.S. in Mechanical Engineering and Materials Science from Duke University School of Engineering and his J.D. from Duke University School of Law. Our board of directors believes that Mr. Errico's extensive senior management experience in innovative healthcare technology companies, and his extensive knowledge and contributions to our company's intellectual property, products, business, and the science of VNS, qualify him to serve on our board of directors.

Peter S. Staats, M.D. has served as our Chief Medical Officer since May 2017. Dr. Staats also served as a member of our board of directors from 2005, when he co-founded our company with Thomas J. Errico and Joseph P. Errico, until January 2018. Dr. Staats has also served as Chief Medical Officer of National Spine and Pain, LLC, the largest pain practice in the United States, since May 2017. From December 2003 to July 2017, he held the roles of physician and a managing partner of Premier Pain Centers, LLC. Dr. Staats was also the founder of the division of pain medicine in the Department of Anesthesiology and Critical Care Medicine at Johns Hopkins University, where he served as its director for years. He has served the non-profit Positive Outcomes Worldwide as founder and Chief Executive Officer since 2015. Dr. Staats was President of ASIPP, a national Physician Advocacy Organization from 2015 to 2016 and President of the NJ Society of International Pain Physicians, a state Physician Advocacy Organization, from 2013 to 2015. He has served as President of the North American Neuromodulation Society from 2002 to 2003. He has served as Director for the World Institute of Pain since 2015 and is currently chairman of the board of examination for the WIP. Peter received his M.D. from the University of Michigan Medical School and completed his residency and fellowship training at the Johns Hopkins University School of Medicine.

Glenn S. Vraniak has served as our Chief Financial Officer since August 2016. Prior to joining our company, from January 2016 to August 2016, Mr. Vraniak provided healthcare consulting services to private equity and healthcare companies as a principal of GSV Advisory Services, LLC. From February 2014 to January 2016, Mr. Vraniak served as Chief Financial Officer at G&W Laboratories, Inc., a specialty pharmaceutical company, where he executed the growth strategy by acquiring two companies and over 35 products. Prior to that, from October 2011 through July 2013, he was President of Aprecia Pharmaceuticals, Inc., a 3D printing technology enabled pharmaceutical company. From 2003 through 2011, Mr. Vraniak was the CFO and Head of Strategic Planning for Prasco Laboratories, a generic pharmaceutical company. From January 2000 to January 2002, he served as Executive VP for GE Capital, and subsequently founded Preceptus, a boutique consulting firm focused on helping small and mid-market companies achieve efficient and scalable growth in the healthcare and technology sectors. Mr. Vraniak received an Electronic Engineering Technology degree and a Managerial MBA in Finance from the Rutgers University Center for Management Development.

Other Key Employees

Roland D. Duhart has served as our Chief Commercial Officer since January 2018, and previously served as our Global Vice President, Sales and Marketing since July 2016. Prior to joining our company, from February 2015 to June 2016, Mr. Duhart held the position of VP, Business Development at Publicis Touchpoint Solutions, a full-service healthcare commercialization company. Previously, from December 2012 to January 2015, he served as Sr. VP, Business Development & Client Services at VMS BioMarketing, a healthcare company. In addition, Mr. Duhart has led sales and marketing teams with increasing scope of responsibility at Schering Plough, Pharmacia-Upjohn, Novartis, and Amylin.

Mr. Duhart received his B.S. in Business Administration, Finance from California State University, Northridge.

Eric J. Liebler has served as our Senior Vice President, Neurology since January 2013. Prior to joining our company, Mr. Liebler served from January 2010 to December 2012 as President and member of the board of directors of Nautilus Neurosciences, a neurology-focused pharmaceutical company that he co-founded in 2009. At Nautilus, Mr. Liebler was involved in all facets of the organization and its early success, including initial funding, product commercialization, and sales and marketing. Prior to founding Nautilus, Mr. Liebler served from September 2007 to December 2008 as Executive Vice President, Corporate Development at Pharmacopeia Inc. Prior to that, he served as Senior Vice President, Strategic Planning and Communication at Questor Pharmaceuticals from August 2006 to September 2007. Mr. Liebler was Managing Partner of Nisola, LLC, a biopharmaceutical consulting firm, from November 2005 to September 2007. He served as Vice President, Business Development at Enzon Pharmaceuticals from December 2002 to November 2005. Previously, Mr. Liebler served as President of Amarin Pharmaceuticals and spent more than 10 years with Elan Corporation and its predecessor Athena Neurosciences, where he served in a number of increasingly senior roles in marketing, investor relations and strategic planning. He also previously served for more than 10 years on the Board of Trustees of the American Academy of Neurology Foundation, now the American Brain Foundation. Mr. Liebler received his B.A. from Tufts University.

Steven M. Mendez has served as our Chief Technical Officer since July 2016, and previously served as Chief Science Officer from 2005 to 2016. Prior to joining our company, from 1998 to 2005, Mr. Mendez was Vice President at EBI, LLC, a subsidiary of Biomet Inc., where he was responsible for electronic, bracing, and softgood products, in addition to overseeing the development of external and implantable electrical/thermal therapy medical devices. Prior to that, Mr. Mendez held engineering positions at Adaptive Instruments Corporation from 1995 to 1998, Walchem Corporation from 1990 to 1994, Wang Laboratories from 1986 to 1989, and United Technologies Corporation from 1983 to 1986. Mr. Mendez received his B.A. in Biology and B.S. in Electrical Engineering from Lehigh University and his M.S. in Electrical Engineering from the Rensselaer Polytechnic Institute.

Michael Romaniw has served as our Vice President, Quality Assurance since January 2011. Prior to joining our company, Mr. Romaniw served as Director of Regulatory Compliance at EBI, LLC, a subsidiary of Biomet Inc. from May 2005 to January 2008, and again from June 2010 to December 2010. Between his periods employment at EBI, Mr. Romaniw held the position of Director of Quality Assurance & Regulatory Compliance at Orthofix Spinal Implants, an affiliate of Blackstone Medical Inc., where he was responsible for product quality control, quality engineering, supplier management, and product complaint handling, as well as the management of field actions and recalls. Prior to that, Mr. Romaniw held various roles relating to manufacturing, design and development, and quality management at companies including Synthes, Sulzer Orthopedics, Kirschner Medical, and 3M Orthopedic Products.

Bruce J. Simon, Ph.D. has served as our Vice President, Research since January 2008. Prior to joining our company, Dr. Simon served as Senior Director of Research at EBI, LLC, a division of Biomet, Inc., from September 1991 to December 2007, where he directed research on the effects of electric and electromagnetic fields on bone, cartilage and soft tissue repair. He has authored or co-authored more than 60 peer-reviewed publications and has 40 issued or pending patents. Dr. Simon obtained a B.S. in Physics from the Massachusetts Institute of Technology and a Ph.D. in Physiology and Biophysics from the University of Iowa. After completing his Ph.D., he spent several years as a Research Assistant Professor at the University of Maryland and then as an Assistant Professor at the University of Texas. His research focused on various aspects of electrophysiology, including excitation-contraction coupling in muscle and biophysical modeling.

Non-employee Directors

Michael G. Atieh will assume service as a director upon effectiveness of the registration statement to which this prospectus is a part. Since 1992, Mr. Atieh has served on the board of directors of Chubb Limited, a publicly traded global insurance company, where he chairs the audit committee and is a member of the executive committee. From September 2014 until his retirement in March 2016, Mr. Atieh was Executive Vice President, Chief Financial and Business Officer of Ophthotech Inc., a public biotechnology company. From February 2009 until its acquisition in February 2012, Mr. Atieh was Executive Chairman of Eyetech Inc., a private specialty pharmaceutical company. He was Executive Vice President and Chief Financial Officer of OSI Pharmaceuticals, a public biotechnology company, from 2005 until December 2008. He also served as a member of the board of directors of Theravance Biopharma, Inc. from June 2014 to April 2015, and as a member of the board of directors and chairman of the audit committee for OSI Pharmaceuticals from June 2003 to May 2005. Previously, Mr. Atieh served at Dendrite International, Inc. as Group President from January 2002 to February 2004 and as Senior Vice President and Chief Financial Officer from October 2000 to December 2001. He also served as Vice President of U.S. Human Health, a division of Merck & Co., Inc., from January 1999 to September 2000, as Senior Vice President—Merck-Medco Managed Care, L.L.C., an indirect wholly-owned subsidiary of Merck, from April 1994 to December 1998, as Vice President—Public Affairs of Merck from January 1994 to April 1994 and as Treasurer of Merck from April 1990 to December 1993. Mr. Atieh received his B.A. in Accounting and Finance from Upsala College in 1975. Mr. Atieh is qualified to serve on our board of directors because of his demonstrated leadership in the biomedical field, including deep knowledge of sales and operations gained from over a decade of experience in these disciplines, as well as his knowledge of financial and financing matters, his current and prior board experience, and his ability to serve as a financial expert on our audit committee.

Nicholas Colucci has served on our board of directors since August 2017. Since February 2018, Mr. Colucci has been Chairman of Publicis Health, a healthcare communications company. From May 2007 to January 2018, Mr. Colucci served as Chief Executive Officer of Publicis Health, and prior thereto, held a variety of account, strategy and leadership roles at Publicis Health, beginning in 1997. Prior to that, Mr. Colucci served as Vice President of Marketing & Sales at EyeSys Technologies (from 1995 to 1997) and as Marketing Director at Hoffman-La Roche (from 1982 to 1995). Mr. Colucci has also previously served on the boards of directors of SDI/Verispan, a healthcare market research company, and of National Rehab, a wound care distribution company. Mr. Colucci received his B.S. in Neuroscience from the University of Rochester and his M.B.A. from Loyola University Maryland. Our board of directors believes that Mr. Colucci's background, with more than 30 years of experience across important life sciences and communications industries, qualifies him to serve on our board of directors.

Thomas J. Errico, M.D. has served on our board of directors since September 2005, when he co-founded the company with Joseph P. Errico and Peter S. Staats. Dr. Errico has been a board-certified orthopedic surgeon since 1986, and currently serves as the Chief of Division of Spine Surgery in Orthopedics for NYU Langone Health, a position he has held since 1997. He is also currently a Professor of Orthopedic and Neurologic Surgery in the NYU School of Medicine. In addition, Dr. Errico is a member of the International Society for the Advancement of Spine Surgery, and served as its President from 2010 to 2011. He is also an original member of the North American Spine Society, and served as its President from 2003 to 2004. Dr. Errico has founded multiple companies in the healthcare industry, including Spinecore, Inc. in 2002, where he served as a director until it was sold to Stryker, Inc. in 2004. Dr. Errico was also a founding member of K2M Group Holdings, Inc. in January 2004. Dr. Errico holds a B.S. in Zoology from Rutgers University and an M.D. from Rutgers Medical School, formerly the University of Medicine and Dentistry of New Jersey. Our board of directors believes Dr. Errico is qualified to serve on our board of directors due to his long tenure as a practicing spine-surgeon and his leadership role with a world class academic medical institution, as well as serving as a co-founder, director and investor in a number of successful early stage healthcare companies.

Trevor J. Moody has served on our board of directors since March 2013. Mr. Moody has served since January 2010 as President of TM Strategic Advisors LLC, a management consultancy serving the boards, investors, and senior management of both emerging and established medical technology companies. He also currently serves as Medical Device Partner at MH Carnegie & Co. Pty Ltd (since October 2013), where he makes venture capital investments in medical device companies. From July 2015 to December 2015, Mr. Moody served as interim CEO of a MH Carnegie & Co. portfolio company, Cardiac Dimensions Pty Ltd. From 1999 to 2010, Mr. Moody was at Frazier Healthcare Ventures, a large healthcare-focused venture capital and private equity investment firm. He was a General Partner at Frazier Healthcare Ventures from 2005 to 2010. Prior to that, he was a Senior Consultant at The Wilkerson Group, a leading healthcare strategic consultancy. Mr. Moody currently also serves on the board of trustees of a non-profit called the Center for Infectious Disease Research, and on the boards of several private corporations, including EBR Systems, Inc., Renew Medical Pty Ltd, Serene Medical Pty Ltd, Brain Protection Company Pty Ltd and Simplify Medical Pty Ltd. Mr. Moody received his B.S. in Engineering from the University of Southern Queensland, Australia, and his M.S. in Management from the Massachusetts Institute of Technology (Sloan School). Our board of directors believes that Mr. Moody's experience, with over 25 years in the development, commercialization and funding of innovative, growth-oriented medical technologies, qualifies him to serve on our board of directors.

Stephen L. Ondra, M.D. will assume service as a director upon effectiveness of the registration statement to which this prospectus is a part. Dr. Ondra is Chief Executive Officer of North Star Healthcare Consulting, a healthcare technology consulting company that he founded in 2017. From 2013 to 2016, Dr. Ondra served as Senior Vice President and Chief Medical Officer of Health Care Service Corporation, the largest customer-owned health insurance company in the United States, which operates as Blue Cross and Blue Shield in Illinois, Montana, New Mexico, Oklahoma and Texas. Prior to his move to the payer sector, from 2012 to 2013, Dr. Ondra served as Senior Vice President and Chief Medical Officer of Northwestern Memorial Hospital. Dr. Ondra had left Northwestern in 2009 when he was appointed by President Obama as the Senior Policy Advisor for Health Affairs of the U.S. Department of Veterans Affairs. He was detailed to the Executive Office of the President of the United States from 2010 to 2012. At the White House, he served in several positions, including Co-Chair of the National Science and Technology Council for Health Information Technology, as a member of the Federal Health Information Technology Policy and Standards Committees, and as a member of the Implementation Deputy Group for the Affordable Care Act. In 2015, Dr. Ondra was appointed to be a member of the Guiding Committee of the Department of Health and Human Services Health Care Payment – Learning and Action Network. He also has served as an adjunct senior fellow at the Center for a New American Society from 2015 to 2018. A Board Certified Neurosurgeon, Dr. Ondra was a Professor of Neurosurgery and Residency Program Director at Northwestern University's Feinberg School of Medicine from 1996 to 2009. He has also served as the interim chair of Neurological Surgery at Northwestern. Dr. Ondra is a Trustee of Illinois Wesleyan University and has served on the board of TriWest Healthcare Alliance, the Louis W. Sullivan Institute for Healthcare Transformation, and was Chair of the scientific advisory boards of the Defense Spinal Cord/Column Injury and the Spine Blast Injury of the Department of Defense. Dr. Ondra attended the U.S. Military Academy and completed pre-medical studies at Illinois Wesleyan University, obtaining his B.A. He then received his M.D. from Rush Medical College in Chicago and subsequently completed residency training in Neurosurgery at the Walter Reed Army Medical Center in Washington D.C. As an U.S. Army physician, Dr. Ondra served with distinction in Operations Desert Shield and Desert Storm and was awarded Bronze Star and Army Commendation Medals. We believe Dr. Ondra is qualified to serve on our board due to his expertise and achievements in medicine, medical policy, health information technology and innovation, as well as his keen understanding of healthcare policy and complex healthcare delivery systems, which has made him a source of counsel for numerous CEOs, health care executives and policymakers in the United States and internationally.

Michael W. Ross has served on our board of directors since March 2018. Since October 2016, Mr. Ross has served on the board of directors of Fresco Foods Inc., a company in the food and beverage industry. Mr. Ross has worked for the Vinik Family Office since September 2017, directing the financial and operating strategies of private equity portfolio companies. Prior to his role with the Vinik Family Office, from January 2004 to August 2017, Mr. Ross independently provided strategic and financial consulting and executive management to various small to mid-size companies. During his employment with Publix Super Markets, Inc. from 2000 to 2005, he held the position of manager of business analysis, providing analytical support to corporate strategy initiatives. From March 2013 to May 2016, he served as a strategy consultant and CFO to JJ Virgin & Associates, a nutrition, health and wellness company. From January 2014 to June 2014, Mr. Ross acted as CEO of Thunderbolt International, Inc., a company engaged in the design, manufacture, and sale of specialized electronics. Mr. Ross obtained a B.S. in mechanical engineering from Case Western Reserve University and his MBA in finance, MIS, and Marketing Strategy from the University of South Florida. Our board of directors believes that Mr. Ross' background and experience as a CEO and CFO of various companies qualifies him to serve on our board of directors. Mr. Ross will resign from our board at or prior to the effectiveness of the registration statement to which this prospectus is a part.

David M. Rubin, Ph.D. has served as a member of our board of directors since March 2013. Dr. Rubin is currently a managing director at GHI, where he is responsible for identifying investment opportunities in emerging health care solutions and services, with a particular emphasis on oncology and infectious disease digital health. Prior to joining GHI, Dr. Rubin was portfolio director for Merck & Co.'s MRL Oncology franchise. Dr. Rubin joined Merck in 2007 from Cognia Corporation, a venture-backed research and development software and content products company, where he was the president and chief executive officer. Previously, Dr. Rubin was at The Wilkerson Group/IBM Global Services. Dr. Rubin previously served on the board of VirtualScopics, Inc. (Nasdaq: VSCP) from 2012 through 2014. Dr. Rubin currently serves on the boards of directors of OpGen, Inc., (Nasdaq: OPGN) and Navigating Cancer, Inc. Dr. Rubin was a National Institute of Health and American Cancer Society post-doctoral fellow at Harvard Medical School. Dr. Rubin also received training in post graduate business at Harvard University. Dr. Rubin holds a Ph.D. from Temple University in Molecular Biology and a B.A. from SUNY Binghamton in Biology. Dr. Rubin's extensive background working with precision medicine and diagnostic companies, his investing experience, his current executive position with Merck GHI and scientific background qualify Dr. Rubin to serve on to our board of directors. Dr. Rubin will resign from our board at or prior to the effectiveness of the registration statement to which this prospectus is a part.

James L.L. Tullis has served as a member of our board of directors since July 2014. Mr. Tullis founded Tullis Health Investors, a venture capital firm specializing in investments in the healthcare industry, in 1986, and has served as its Chief Executive Officer since its inception. Prior to that, Mr. Tullis was a Senior Vice President at E.F. Hutton & Co., a stock brokerage firm, and a principal at Morgan Stanley & Co., where he worked with the healthcare investment research and banking teams. Mr. Tullis has served as a member of the board of directors since 2006, and as chairman of the board of directors, since 2017, of Lord Abbett Mutual Funds. Since 1998, he has also served as a member of the board of directors of Crane Co., an industrial products manufacturing company. Since March 2018, Mr. Tullis has been a member of the board of directors of ATEC Spine, a provider of spine surgery solutions. Mr. Tullis also currently serves as a member of the board of directors of several private companies, including LivHOME, Inc., an at-home senior care company, SupplyPro, Inc., an inventory management solutions company, and Exagen Diagnostics, Inc., a diagnostics company focused on autoimmune rheumatic diseases. Mr. Tullis holds a B.A. from Stanford University and an M.B.A. from Harvard Business School. Mr. Tullis' extensive experience serving as a venture capitalist and board member for numerous companies in the health care industry contributed to our board of directors' conclusion that Mr. Tullis should serve as a director of our company.

Board Composition

Our board of directors currently consists of eight members. The current members of our board of directors have been designated pursuant to the Operating Agreement. The Operating Agreement provides (subject to certain conditions and qualifications specified therein relating to securities ownership and otherwise) that our board is composed of:

- one director designated by each of our founding investors, Joseph P. Errico, Dr. Thomas J. Errico, and Kathryn K. Theofilos, two of such seats being filled by Joseph P. Errico and Dr. Thomas J. Errico and one seat being vacant;
- one director designated by Merck GHI, for which Dr. David M. Rubin has been designated;
- one director designated by Core Ventures II, LLC, for which Nicholas Colucci has been designated;
- one director designated by AIH-Electro, LLC, for which Michael W. Ross has been designated; and
- three other directors designated by the holders of a majority of our outstanding membership units, who have designated Francis R. Amato, Trevor J. Moody and James L.L. Tullis.

The Operating Agreement will terminate upon the completion of the corporate conversion and, thereafter, our directors will be elected by the vote of our common stockholders. Under our bylaws to be effective upon the completion of the corporate conversion, the number of directors will be determined from time to time by our board of directors.

Each of the current members of our board of directors other than Michael W. Ross and David M. Rubin, Ph.D., is expected to serve as a director following the corporate conversion and completion of this offering. At least two new directors, including Michael G. Atieh and Stephen L. Ondra, will be appointed prior to the effectiveness of the registration statement to which this prospectus is a part.

There are no family relationships among any of our directors and executive officers, except that Dr. Thomas J. Errico is the uncle of Joseph P. Errico.

Classified Board of Directors

In accordance with our certificate of incorporation to be effective upon the completion of the corporate conversion, our board of directors will be divided into three classes with staggered, three-year terms. At each annual meeting of stockholders, the successors to directors whose terms then expire will be elected to serve from the time of election and qualification until the third annual meeting following their election. Effective upon the consummation of this offering, we expect that our directors will be divided among the three classes as follows:

- the Class I directors will be Michael G. Atieh, Stephen L. Ondra M.D., and Francis R. Amato, and their terms will expire at our first annual meeting of stockholders following this offering;
- the Class II directors will be Trevor J. Moody, James L.L. Tullis, and Joseph P. Errico, and their terms will expire at our second annual meeting of stockholders following this offering; and
- the Class III directors will be Nicholas Colucci, Thomas J. Errico, M.D., and one additional director expected to be named prior to the effectiveness of the registration statement to which this prospectus is a part, and their terms will expire at our third annual meeting of stockholders following this offering.

Pursuant to our certificate of incorporation to be effective upon the completion of the corporate conversion, only our board of directors will be able to fill vacancies on our board of directors until the

next succeeding annual meeting of stockholders. Any additional directorships resulting from an increase in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of the directors.

The classification of our board of directors may have the effect of delaying or preventing changes in our control or management. See “Description of Capital Stock—Anti-Takeover Provisions—Our Certificate of Incorporation and Bylaws.”

Director Independence

In connection with this offering, we have applied to list our common stock on The Nasdaq Global Select Market, or Nasdaq. Under Nasdaq rules, independent directors must comprise a majority of our board of directors within a specified period of the completion of this offering. In addition, Nasdaq rules require that, subject to specified exceptions, each member of a listed company’s audit, compensation and nominating and governance committees be independent. Under Nasdaq rules, a director will only qualify as an “independent director” if, in the opinion of that company’s board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director.

Audit committee members must also satisfy the independence criteria set forth in Rule 10A-3 under the Exchange Act. In order to be considered independent for purposes of Rule 10A-3, a member of an audit committee of a listed company may not, other than in his or her capacity as a member of the audit committee, the board of directors or any other board committee: (i) accept, directly or indirectly, any consulting, advisory or other compensatory fee from the listed company or any of its subsidiaries; or (ii) be an affiliated person of the listed company or any of its subsidiaries.

Our board of directors has undertaken a review of the independence of each director and considered whether each director has a material relationship with us that could compromise his ability to exercise independent judgment in carrying out his responsibilities. As a result of this review, our board of directors has determined that each of our directors other than Messrs. Amato and Joseph P. Errico, are “independent directors” as defined under the applicable rules and regulations of the SEC, and the listing requirements and rules of Nasdaq. In making these determinations, our board of directors has reviewed and discussed information provided by the directors and us with regard to each director’s business and personal activities and relationships as they may relate to us and our management, including the beneficial ownership of our capital stock by each non-employee director and the transactions involving them described in the section entitled “Certain Relationships and Related-Party Transactions.”

Audit Committee

Effective as of the date the registration statement of which this prospectus is part is declared effective, we will establish an audit committee to consist of Michael G. Atieh, James L.L. Tullis, and one additional director to be named, with Mr. Atieh serving as chairman. Our board of directors has affirmatively determined that each member of the audit committee meets the definition of “independent director” for purposes of the rules and the independence requirements of Rule 10A-3 of the Exchange Act. Our board of directors will also determine which member qualifies as an “audit committee financial expert” under SEC rules and regulations.

Our audit committee will be responsible for, among other matters:

- appointing, compensating, retaining, evaluating, terminating and overseeing our independent registered public accounting firm;
- discussing with our independent registered public accounting firm their independence from management;

- reviewing with our independent registered public accounting firm the scope and results of their audit;
- approving all audit and permissible non-audit services to be performed by our independent registered public accounting firm;
- overseeing the financial reporting process and discussing with management and our independent registered public accounting firm the interim and annual financial statements that we file with the Securities and Exchange Commission;
- reviewing and monitoring our accounting principles, accounting policies, financial and accounting controls and compliance with legal and regulatory requirements;
- establishing procedures for the confidential anonymous submission of concerns regarding questionable accounting, internal control or auditing matters; and
- reviewing and approving related person transactions.

Our board of directors has adopted a new written charter for the audit committee, which will be available on our website.

Compensation Committee

Effective as of the date the registration statement of which this prospectus is part is declared effective, we will reconstitute our compensation committee to consist of Nicholas Colucci, Thomas J. Errico, M.D., and Trevor J. Moody, with Mr. Colucci serving as chairman. Our board of directors has affirmatively determined that each member of the reconstituted compensation committee meets the heightened definition of "independent director" for purposes of the Nasdaq rules applicable to members of the compensation committee, and the definition of "non-employee director" for purposes of Section 16 of the Exchange Act.

The compensation committee will be responsible for, among other matters:

- establishing and approving, and making recommendations to the board of directors regarding, performance goals and objectives relevant to the compensation of our chief executive officer, evaluating the performance of our chief executive officer in light of those goals and objectives and recommending to the full board of directors for approval, the chief executive officer's compensation, including incentive-based and equity-based compensation, based on that evaluation;
- setting the compensation of our other executive officers, based in part on recommendations of the chief executive officer;
- reviewing and approving, and making recommendations to the board of directors regarding, employment agreements, severance arrangements and change of control agreements for the chief executive officer and other executive officers, as appropriate;
- exercising administrative authority under our stock plans and employee benefit plans;
- establishing policies and making recommendations to our board of directors regarding director compensation;
- reviewing compensation plans, programs and policies; and
- handling such other matters that are specifically delegated to the compensation committee by the board of directors from time to time.

Our board of directors has adopted a new written charter for the compensation committee, which will be available on our website.

Nominating and Governance Committee

Effective as of the date the registration statement of which this prospectus is part is declared effective, we will establish a nominating and governance committee to consist of Nicholas Colucci, Thomas J. Errico, M.D., and Stephen L. Ondra, M.D., with Dr. Errico serving as chairman.

The nominating and governance committee will be responsible for, among other matters:

- annually reviewing the list of director selection criteria contained in our corporate governance necessary or appropriate changes thereto;
- identifying, reviewing and evaluating candidates, including candidates submitted by stockholders, for election to our board of directors and recommending to our board of directors (i) nominees to fill vacancies or new positions on our board of directors and (ii) the slate of nominees to stand for election by our stockholders at each annual meeting of stockholders;
- annually recommending to our board of directors (i) the assignment of directors to serve on each committee; (ii) the chairperson of each committee and (iii) the chairperson of our board of directors or lead independent director, as appropriate;
- developing, recommending, overseeing the implementation of and monitoring compliance with, our corporate governance guidelines, and periodically reviewing and recommending any necessary or appropriate changes to our corporate governance guidelines;
- reviewing the adequacy of our certificate of incorporation and bylaws and recommending to our board of directors, as conditions dictate, amendments for consideration by the stockholders;
- reviewing our code of business conduct and ethics and recommending any changes to our board of directors; and
- such other matters as directed by our board of directors.

Our board of directors has adopted a written charter for the nominating and governance committee, which will be available on our website.

Role of the Board of Directors in Risk Oversight

One of the key functions of our board of directors is informed oversight of our risk management process. The board of directors does not have a standing risk management committee, but rather administers this oversight function directly through the board of directors as a whole, as well as through various standing committees of our board of directors that address risks inherent in their respective areas of oversight. In particular, our board of directors is responsible for monitoring and assessing strategic risk exposure and following this offering our audit committee will have the responsibility to consider and discuss our major financial risk exposures and the steps our management has taken to monitor and control these exposures, including guidelines and policies to govern the process by which risk assessment and management is undertaken. The nominating and governance committee will monitor compliance with legal and regulatory requirements and the effectiveness of our corporate governance practices, including whether they are successful in preventing illegal or improper liability-creating conduct. Our nominating and governance committee will also be responsible for overseeing our risk management efforts generally, including the allocation of risk management functions among our board of directors and its committees. Our compensation committee will assess and monitor whether any of our compensation policies and programs has the potential to encourage excessive risk-taking. Our audit committee will periodically review the general process for the oversight of risk management by our board of directors.

Compensation Committee Interlocks and Insider Participation

As of the effectiveness of the registration statement to which this prospectus is a part, none of the members of our compensation committee will have been at any time during the prior three years one of our officers or employees. As of such effectiveness, none of our executive officers will serve, or have served in the past fiscal year, as a member of the board of directors or compensation committee of any third party that has one or more executive officers serving on our board of directors or compensation committee.

Code of Business Conduct and Ethics

Prior to the effectiveness of the registration statement to which this prospectus is a part, we will adopt a written code of business conduct and ethics that applies to our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. A copy of the code will be posted on our website, which is located at *www.electrocore.com*. If we make any substantive amendments to, or grant any waivers from, the code of business conduct and ethics for any officer or director, we will disclose the nature of such amendment or waiver on our website or in a current report on Form 8-K. We do not incorporate the information on or accessible through our website into this prospectus, and you should not consider any information on, or that can be accessed through, our website as part of this prospectus.

EXECUTIVE AND DIRECTOR COMPENSATION

Executive Compensation

This section discusses the material components of the executive compensation program offered to our named executive officers and our Chief Financial Officer, whom we refer to as our "NEOs." For 2017, our NEOs were:

- Francis R. Amato, Chief Executive Officer, Director;
- Joseph P. Errico, Chief Science and Strategy Officer, Director;
- Peter S. Staats, M.D., Chief Medical Officer; and
- Glenn S. Vraniak, Chief Financial Officer.

This discussion may contain forward-looking statements that are based on our current plans, considerations, expectations and determinations regarding future compensation programs. Actual compensation programs that we adopt following the closing of this offering may differ materially from the currently planned programs summarized in this discussion.

We are an "emerging growth company," within the meaning of the JOBS Act, and have elected to comply with the reduced compensation disclosure requirements available to emerging growth companies under the JOBS Act. See "Prospectus Summary – Implications of Being an Emerging Growth Company."

2017 Summary Compensation Table

Name and Principal Position	Year	Salary ($)	Bonus ($)[1]	Option Awards ($)[2]	Non-equity incentive plan compensation($)[3]	All Other Compensation ($)[4]	Total ($)
Francis R. Amato Chief Executive Officer, Director	2017	400,000	70,000	156,469	125,000	16,369	767,838
Joseph P. Errico Chief Science & Strategy Officer, Director	2017	350,000	70,000	104,838	—	16,369	541,207
Peter S. Staats, M.D. Chief Medical Officer	2017	151,667[5]	10,000	30,000	—	6,820	198,487
Glenn S. Vraniak Chief Financial Officer	2017	300,000	35,000	52,419	—	16,369	403,778

(1) Represents discretionary cash bonuses approved by the compensation committee of our board of directors for performance during 2017.
(2) Represents the grant date fair value of Common Units issued as Profits Interests in Electrocore, LLC computed in accordance with FASB ASC 718. See Note 13 to the consolidated financial statements for the fiscal year ended December 31, 2017 included with this prospectus for a description of the assumptions used in valuing our Common Units. These Common Units are intended to constitute profits interests for U.S. federal income tax purposes. Despite the fact that the Common Units that are intended to constitute Profits Interests do not require the payment of an exercise price, for purposes of this table we believe they are most similar economically to stock options and are properly classified as "options" under the definition provided in Item 402(a)(6)(i) of Regulation S-K as an instrument with an "option-like feature."
(3) Represents a contingent cash bonus paid to Mr. Amato following receipt by us of the FDA grant of our *de novo* application and the closing of our Series B Preferred Unit financing, as discussed below under "—Narrative Disclosure to Summary Compensation Table."
(4) These amounts consist of payments of health care premiums and contributions to health savings accounts on behalf of the NEO.

(5) Represents a prorated amount of base salary earned by Dr. Staats beginning upon his commencement of employment on May 1, 2017. Pursuant to his employment agreement, Dr. Staats was entitled to an annual base salary of $140,000 for the three calendar months beginning May 1, 2017, and an annual base salary of $280,000 beginning August 1, 2017.

Narrative Disclosure to Summary Compensation Table

The primary elements of compensation for our NEOs are base salary, annual discretionary bonuses, performance bonuses and equity compensation awards. The NEOs also participate in employee benefit plans and programs that we offer to our other full-time employees on the same basis.

Base Salaries

We pay our NEOs a base salary to compensate them for the satisfactory performance of services rendered to us. The base salary payable to each NEO is intended to provide a fixed component of compensation reflecting the executive's skill set, experience, role and responsibilities. Base salaries for our NEOs have generally been set at levels deemed necessary to attract and retain individuals with superior talent. No changes to the base salaries of our NEOs occurred for 2017.

Performance Bonuses

We offer our NEOs the opportunity to earn annual discretionary cash bonuses, as determined by our board of directors or the compensation committee annually at their discretion. Actual bonus amounts for our NEOs are determined by our compensation committee after consideration of Mr. Amato and Mr. Errico's recommendations (except with respect to their individual bonuses).

For 2017, annual bonuses were based on such factors as the board and the compensation committee deemed appropriate, including the FDA grant of our *de novo* approval, successful completion of our Series B Preferred Unit financing and the individual NEO's performance as it relates to his area of responsibility. In addition, Mr. Amato received a contractual bonus award required by his employment offer letter.

Equity Compensation

We have granted equity awards to our employees, including our NEOs, as the long-term incentive component of our compensation program. Historically, these awards have consisted of Common Units in Electrocore, LLC that were granted to employees when they commence employment with us. Our Board and Compensation Committee have also from time to time granted additional awards to key employees as they determined appropriate to motivate, retain or reward such employees. These Common Unit grants are intended to qualify as Profits Interests for U.S. federal income tax purposes entitling the holder to participate in our future appreciation from and after the date of grant of the applicable Common Units.

Profits Interests granted to our NEOs are typically subject to time-based vesting conditions and may be subject to accelerated vesting in certain circumstances, including as described below in the sections titled "Unit Forfeiture Agreements" and "—Potential Payments Upon a Change in Control."

In connection with his elevation to Chief Executive Officer in July 2016 and as additional incentive to retain his services, Mr. Amato was granted 3,500,000 Profits Interests to bring his ownership percentage in the company to 3%, together with certain anti-dilution protection to maintain his ownership at 3% through the final closing of our Series B Preferred Unit financing. Pursuant to such anti-dilution rights, Mr. Amato was granted, in the aggregate, an additional 7,942,573 Profits Interests in 2017 taking into account the final closings of our Series B Preferred Unit financing.

In July 2016, as additional incentive to retain his services, Mr. Errico was granted 1,700,000 Profits Interests, together with certain anti-dilution protection such that 2,400,000 of his Common Units would,

as of the final closing of our Series B Preferred Unit financing, represent no less than 2% of our total outstanding capitalization. Pursuant to such anti-dilution rights, Mr. Errico was granted, in the aggregate, an additional 5,321,715 Profits Interests in 2017 taking into account the final closings of our Series B Preferred Unit financing.

In connection with Dr. Staats becoming our Chief Medical Officer on May 1, 2017, Dr. Staats was granted 1,500,000 Profits Interests.

In connection with the hiring of Mr. Vraniak in July 2016 as our Chief Financial Officer, he was granted (i) 225,000 Profits Interests in lieu of his cash salary for the six-month period August 15, 2016 through December 31, 2016, and (ii) 1,700,000 Profits Interests, together with certain anti-dilution protection such that 1,700,000 of his Common Units would, as of the final closing of our Series B Preferred Unit financing, represent no less than 1% of our total outstanding capitalization. Pursuant to such anti-dilution rights, Mr. Vraniak was granted in the aggregate an additional 2,660,858 Profits Interests in 2017 taking into account the final closings of our Series B Preferred Unit financing.

Refer to the Outstanding Equity Awards as of December 31, 2017 table below for a description of the vesting terms that apply to these awards.

In connection with this offering, we intend to adopt the 2018 Plan, to facilitate the grant of equity-based incentives to our directors, employees (including our NEOs) and consultants and to enable us to obtain and retain the services of these individuals, which we believe is essential to our long-term success. For additional information about the 2018 Plan, refer to the section titled "—2018 Incentive Award Plan" below.

Retirement, Health, Welfare and Additional Benefits

Our NEOs are eligible to participate in our employee benefit plans and programs, including medical and dental benefits and flexible spending accounts, to the same extent as our other full-time employees, subject to the terms and eligibility requirements of those plans. We also sponsor a 401(k) defined contribution plan in which our NEOs may participate, subject to limits imposed by the Internal Revenue Code, to the same extent as our other full-time employees. Currently, we do not match any of the contributions made by participants in the 401(k).

Outstanding Equity Awards as of December 31, 2017

The following table sets forth information with respect to outstanding Profits Interests awards for each of our NEOs as of December 31, 2017. For the Profits Interests, the table reflects both vested and unvested units. Profits Interests are subject to time-based vesting and to an additional requirement that a minimum valuation threshold be met before the holder of the Profits Interests is entitled to a distribution in respect of such award.

In connection with the corporate conversion, outstanding Profits Interests of our NEOs will be converted into (i) shares of our common stock, and (ii) provided the NEO is an employee at the time of the conversion, options to purchase our common stock. The number of shares of common stock and the number of options to be issued to each such NEO in respect of his Profits Interests will be determined based upon the appreciation in our value after the date of grant of the applicable Profits Interest through the completion of this offering. The exercise price of these options will be equal to the offering price. Following the corporate conversion, the vesting provisions applicable to the Profits Interests as in effect prior to the corporate conversion will apply, in substantially the same manner, to the shares of common stock and options issued in respect of such Profits Interests in the conversion.

	Option Awards			
Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price ($)(1)	Option Expiration Date
Francis R. Amato	700,000	0	$ 2.75	—
	300,000	0	$ 0.74	—
	200,000	0	$ 0.74	—
	200,000	0	$ 0.85	—
	120,000	120,000(2)	$ 0.38	—
	1,312,500	2,187,500(2)	$ 0.38	—
	1,846,648	3,077,747(3)	$ 0.21	—
	1,131,817	1,886,361(3)	$ 0.35	—
Joseph P. Errico	80,000	0	$ 2.00	—
	1,400,000	0	$ 0.74	—
	637,500	1,062,500(2)	$ 0.38	—
	1,237,299	2,062,164(3)	$ 0.21	—
	758,345	1,263,908(3)	$ 0.35	—
Peter S. Staats, M.D.	80,000	0	$ 2.00	—
	350,000	450,000(2)	$ 0.38	—
	0	1,500,000(2)	$ 0.17	—
Glenn S. Vraniak	637,500	1,062,500(2)	$ 0.38	—
	225,000	0	$ 0.38	—
	618,650	1,031,083(3)	$ 0.21	—
	379,172	631,954(3)	$ 0.35	—

(1) These Common Units were issued as "profits interests" for U.S. federal income tax purposes and do not require the payment of an exercise price, but rather entitle the holder to participate in our future appreciation from and after the date of grant of the applicable Common Units. Despite this, for purposes of this table we believe they are most similar economically to stock options and are properly classified as "options" under the definition provided in Item 402(a)(6)(i) of Regulation S-K as an instrument with an "option-like feature." The prices reflected in this column represent the fair market value of our Common Units on the date on which the Profits Interests were granted.

(2) The awards vest as to 25% of such grant on the one year anniversary of the vesting commencement date and quarterly thereafter in equal installments until fully vested at the fourth anniversary of such award subject to accelerated vesting in certain circumstances as described below under "—Unit Forfeiture Agreements", or Standard Vesting Schedule.

(3) These awards represent grants in satisfaction of certain anti-dilution protection in favor of certain NEOs. See "—Employment Agreements with Our Named Executive Officers" above. The awards vest in accordance with our Standard Vesting Schedule, but the vesting commencement date for these awards began on the date on which the NEO received a right to anti-dilution protection as described above.

Effect of the Corporate Conversion and this Offering

Refer to "Management's Discussion and Analysis of Financial Condition and Results of Operations—Statutory Corporate Conversion" for more information regarding the distribution of our common stock to employees, including our NEOs, in respect of their holdings of our Common Units at the time of the corporate conversion.

Employment Agreements with Our Named Executive Officers

Francis R. Amato

On July 3, 2012, we entered into an employment agreement with Mr. Amato, or the Prior Amato Agreement, providing for base salary, annual target cash bonus opportunity, and standard employee benefit plan participation. In July 2016, we entered into an amended and restated employment

agreement, or the Amato Agreement, which superseded and replaced the Prior Amato Agreement in its entirety. Mr. Amato's base salary currently is $400,000 with an annual target cash bonus opportunity of up to 17.5% of his annual base salary, payable solely at the discretion of our board of directors. Please see the section above entitled "—2017 Summary Compensation Table—Performance Bonuses" for a further description of the annual bonus awarded to Mr. Amato for 2017. Under the Amato Agreement, Mr. Amato's employment is terminable at-will and is subject to our standard confidential information and invention assignment provisions and certain non-competition covenants during Mr. Amato's employment with us and, with respect to the non-competition covenant, a period of one year after Mr. Amato's termination.

Under the Amato Agreement, in the event Mr. Amato's employment is terminated by us other than for "cause" (as defined below) or as a result of Mr. Amato's resigning for "good reason" (as defined below), then Mr. Amato will receive (i) a severance payment equal to six months of Mr. Amato's base salary, payable in equal monthly installments as salary continuation, and (ii) payment or reimbursement by us of COBRA premiums for up to six months.

Under the Amato Agreement, Mr. Amato was granted certain Profits Interests, together with certain anti-dilution protection. See "Equity Compensation" above.

For purposes of the Amato Agreement, "cause" means: (i) Mr. Amato's gross negligence or willful misconduct in the performance of Mr. Amato's duties; (ii) the conviction of, or plea of guilty or nolo contendere to, the commission of a felony by Mr. Amato; (iii) the commission of an act of fraud or embezzlement by Mr. Amato against us; or (iv) Mr. Amato's breach of any material provision of the Amato Agreement.

For purposes of the Amato Agreement, "good reason" means: (i) a material adverse change in Mr. Amato's position, duties, responsibilities, or status with our company; (ii) a material breach by us of any provision of the Amato Agreement, including without limitation, any reduction in Mr. Amato's base salary other than in connection with an across the board salary reduction by us for senior management due to material cash flow problems; or (iii) without Mr. Amato's consent, relocation of his principal business location by us outside of the northern New Jersey/New York metropolitan area.

The Amato Agreement will be terminated effective on the date the registration statement of which this prospectus is part is declared effective and he will sign a Confidentiality and Assignment Agreement which, will include certain non-competition and non-solicitation covenants. Following the termination of the Amato Agreement, Mr. Amato will continue his employment on an at-will basis subject to the terms of the Executive Severance Policy that will be adopted by us concurrently with the termination of the Amato Agreement. See "—Executive Severance Policy" below. At that time, Mr. Amato's base salary will be increased to $475,000 with an annual target cash bonus opportunity of up to 60% of his annual base salary, payable solely at the discretion of our board of directors. Upon completion of this offering, Mr. Amato will be entitled to a cash bonus of $150,000.

Joseph P. Errico

On March 28, 2013, we entered into an employment agreement with Mr. Errico, or the Prior Errico Agreement, providing for base salary, performance bonus opportunity, and standard employee benefit plan participation. In July 2016, we entered into an amended and restated employment agreement, or the Errico Agreement, which superseded and replaced the Prior Errico Agreement in its entirety. Mr. Errico's base salary currently is $350,000 and he is eligible for a performance bonus payable solely at the discretion of our board of directors. Please see the section above entitled "—2017 Summary Compensation Table—Performance Bonuses" for a further description of the annual bonus awarded to Mr. Errico for 2017. Under the Errico Agreement, Mr. Errico's employment is terminable at-will and is subject to our standard confidential information and invention assignment provisions and certain non-competition covenants during Mr. Errico's employment with us and for the duration that Mr. Errico is receiving severance payments.

Under the Errico Agreement, in the event Mr. Errico's employment is terminated by us other than for "cause" (as defined below) or as a result of Mr. Errico resigning for "good reason" (as defined below), then Mr. Errico will receive (i) a severance payment equal to 12 months of Mr. Errico's base salary, payable in equal monthly installments as salary continuation, and (ii) payment or reimbursement by us of COBRA premiums for up to 12 months.

Under the Errico Agreement, Mr. Errico was granted certain Profits Interests, together with certain anti-dilution protection. See "—2017 Summary Compensation Table—Equity Compensation" above.

The Errico Agreement will be terminated effective on the date the registration statement of which this prospectus is part is declared effective and he will sign a Confidentiality and Assignment Agreement, which will include certain non-competition and non-solicitation covenants. Following the termination of the Errico Agreement, Mr. Errico will continue his employment on an at-will basis subject to the terms of the Executive Severance Policy that will be adopted by us concurrently with the termination of the Errico Agreement. See "—Executive Severance Policy" below. At that time, Mr. Errico's base salary will be increased to $415,000 with an annual target cash bonus opportunity of up to 40% of his annual base salary, payable solely at the discretion of our board of directors. Upon completion of this offering, Mr. Errico will be entitled to a cash bonus of $150,000.

Peter S. Staats, M.D.

On May 1, 2017, we entered into an employment agreement with Dr. Staats, providing for base salary, annual discretionary bonus opportunity, and standard employee benefit plan participation, or the Staats Agreement. In 2017, Dr. Staats' base salary was initially $140,000 and increased to $280,000 as of August 1, 2017 and he is eligible for an annual discretionary bonus, as well as reimbursement for expenses associated with continuing medical education credits in connection with maintaining his accreditation as a licensed physician. Please see the section above entitled "—2017 Summary Compensation Table—Performance Bonuses" for a further description of the annual bonus awarded to Dr. Staats's for 2017. Under the Staats Agreement, Dr. Staats' employment is terminable at-will and is subject to our standard confidential information and invention assignment provisions and certain non-competition covenants during Dr. Staats' employment with us and for a period of six months after Dr. Staats' termination.

The Staats Agreement will be terminated effective on the date the registration statement of which this prospectus is part is declared effective and he will sign a Confidentiality and Assignment Agreement, which will include certain non-competition and non-solicitation covenants. Following the termination of the Staats Agreement, Dr. Staats will continue his employment on an at-will basis subject to the terms of the Executive Severance Policy that will be adopted by us concurrently with the termination of the Staats Agreement. See "—Executive Severance Policy" below. At that time, Dr. Staat's base salary will be increased to $325,000 with an annual target cash bonus opportunity of up to 40% of his annual base salary, payable solely at the discretion of our board of directors.

Glenn S. Vraniak

On July 25, 2016, we entered into an employment agreement with Mr. Vraniak, providing for base salary, annual performance bonus opportunity, and standard employee benefit plan participation, or the Vraniak Agreement. In 2017, Mr. Vraniak's base salary was $300,000 and he is eligible for an annual performance bonus opportunity, payable solely at the discretion of our board of directors. Please see the section above entitled "—2017 Summary Compensation Table—Performance Bonuses" for a further description of the annual bonus awarded to Mr. Vraniak for 2017. Under the Vraniak Agreement, Mr. Vraniak's employment is terminable at-will and is subject to our standard confidential information and invention assignment provisions and certain non-competition covenants during Mr. Vraniak's employment with us and, with respect to the non-competition covenant, a period of one year after Mr. Vraniak's termination.

Under the Vraniak Agreement, in the event Mr. Vraniak's employment is terminated by us other than for "cause" (as defined below) or as a result of Mr. Vraniak's resigning for "good reason" (as defined below), then Mr. Vraniak will receive (i) a severance payment equal to six months of Mr. Vraniak's base salary, payable in equal monthly installments as salary continuation, and (ii) payment or reimbursement by us of COBRA premiums for up to six months.

For purposes of the Errico Agreement and the Vraniak Agreement, "cause" means: (i) the officer's gross negligence or willful misconduct in the performance of his duties to us; (ii) the conviction of, or plea of guilty or nolo contendere to, the commission of a felony by the officer; (iii) the commission by the officer of an act of fraud or embezzlement against us; or (iv) the officer's breach of any material provision of the applicable Agreement, subject to prior written notice to him and a reasonable cure period.

For purposes of the Errico Agreement and the Vraniak Agreement, "good reason" means: (i) a material adverse change in the officer's position, duties, responsibilities, or status with us; (ii) a material breach by us of any provision of his employment agreement, including without limitation, any reduction in his base salary other than in connection with an across the board salary reduction by us for senior management due to material cash flow problems; or (iii) without the officer's consent, relocation of his principal business location by us outside of the northern New Jersey/New York metropolitan area.

The Vraniak Agreement will be terminated effective on the date the registration statement of which this prospectus is part is declared effective and he will sign a Confidentiality and Assignment Agreement, which will include certain non-competition and non-solicitation covenants. Following the termination of the Vraniak Agreement, Mr. Vraniak will continue his employment on an at-will basis subject to the terms of the Executive Severance Policy that will be adopted by us concurrently with the termination of the Vraniak Agreement. See "—Executive Severance Policy" below. At that time, Mr. Vraniak's base salary will be increased to $330,000 with an annual target cash bonus opportunity of 40% of his annual base salary, payable solely at the discretion of our board of directors. Upon completion of this offering, Mr. Vraniak will be entitled to a cash bonus of $100,000.

Executive Severance Policy

Effective as of the date the registration statement to which the prospectus is part is declared effective, we will implement an Executive Severance Policy to replace the severance benefits previously provided pursuant to individual employment agreements that will be terminated effective as of such date. Under the Executive Severance Policy, if we terminate an eligible member of our senior management team (including Mr. Amato, Mr. Errico, Dr. Staats or Mr. Vraniak) without "cause" or if the executive resigns for "good reason" (as those terms are defined below), we will provide the following severance benefits: (i) a lump sum severance payment in an amount equal to six months of base salary (or one year of base salary and target bonus in the case of our Chief Executive Officer or Chief Science and Strategy Officer), and (ii) reimbursement of COBRA premiums for group health continuation coverage paid by the terminated executive for the duration of the "severance period" (as defined below). If the termination without cause or resignation for good reason occurs within two years after a "change in control" we will provide the following severance benefits in lieu of the benefits provided in the previous sentence: (i) a lump sum severance payment in an amount equal to one year of base salary (or one and one-half (1.5) years of the sum of base salary and target bonus in the case of our Chief Executive Officer or Chief Science and Strategy Officer), and (ii) reimbursement of COBRA premiums for group health continuation coverage paid by the terminated executive for the duration of the severance period, and (iii) acceleration of vesting for all outstanding equity compensation and an extension of the period of time to exercise outstanding stock options and stock appreciation rights until the earlier of 150 days following the executive's termination of employment or the original expiration date for such options or stock appreciation rights.

For purposes of the Executive Severance Policy, "cause" means any of the following: (a) the executive's willful failure to fulfill, in any material respect, his or her duties and responsibilities to us (other than by

reason of death, illness or disability); (b) the executive's willful misconduct, gross negligence or willful acts of personal dishonesty in the performance of his or her duties to us that directly, materially and demonstrably impairs or damages our property, goodwill, reputation, business or finances; (c) the conviction of, or plea of nolo contendere by, the executive to, a felony or a crime involving moral turpitude that materially and demonstrably impairs or damages our property, goodwill, reputation, business or finances; (d) the executive's commission of fraud or embezzlement against us; (e) the executive's willful or intentional violation of any lawful policy that directly, materially and demonstrably impairs or damages our property, goodwill, reputation, business or finances; or (f) the executive's breach of the terms of any confidentiality and assignment agreement, which contains restrictive covenants in favor of us.

For purposes of the Executive Severance Policy "good reason" means any of the following (a) any material reduction in the executives base annual compensation prior to a "change in control"; provided, however, that a reduction in the executives base annual compensation shall not constitute "good reason" if we reduce the annual base compensation of all participants in the Executive Severance Policy on a substantially equivalent basis; (b) any material reduction in the executive's base annual compensation during the period commencing on or after a "change in control" and ending on the second anniversary of a "change in control"; (c) any material diminution in the executive's authority, duties, offices, title or responsibilities; or (d) a transfer of executive's principal place of employment to a location that is more than 30 miles from the executive's then current principal place of employment.

For purposes of the Executive Severance Policy, "severance period" means the number of months set forth in the table below based on the executive's employment position as the time of his involuntary termination of employment that results in the executive's termination for "good reason":

	Severance Period	
Employment Position	Prior to a Change in Control	After a Change in Control
CEO or CSSO:	12 months	18 months
All Other Participants:	6 months	12 months

Unit Forfeiture Agreements

In connection with a grant of our Profits Interests, each of our NEOs enters into a standard form of Unit Forfeiture Agreement, which provides for, among other things, acceleration upon a change in control event, as well as upon death or disability. In the event there is a change of control, then one hundred percent of the NEO's then-unvested Profits Interests will immediately vest, subject to the NEO remaining employed with us until the change in control transaction. Upon an NEO's death, one hundred percent of the NEO's then-unvested Profits Interests will immediately vest and fifty percent of the NEO's then-unvested Profits Interests will immediately vest upon the NEO's disability, in both instances subject to the NEO remaining employed with us until such date.

Potential Payments Upon a Change in Control

The unvested Profits Interests held by our NEOs vest in full upon a change in control of our company, subject to the NEO remaining employed with us until the change in control transaction.

2017 Operating Agreement

In November 2017, we amended and restated our Operating Agreement. Our Operating Agreement provides for the grant of Common Units that constitute Profits Interests for income tax purposes to our employees (including officers), non-employee consultants and non-employee directors and those of our affiliates. Under our Operating Agreement, our compensation committee has been delegated the authority to administer the Profits Interests in order to provide a means to attract, retain and motivate

our directors, employees and consultants upon whose judgment, initiative and efforts our continued success, growth and development are dependent. In addition to the discretion to grant Profits Interests, the compensation committee sets the vesting terms for awards pursuant to a unit forfeiture agreement. Each Profits Interest includes a minimum valuation threshold that must be achieved before the interest is entitled to receive any distributions under the Operating Agreement. As of December 31, 2017, there were 43.1 million issued and outstanding Profits Interests, of which 19.2 million were vested.

Profits Interests are generally issued pursuant to a Unit Forfeiture Agreement as described above.

Upon the corporate conversion, holders of Profits Interests will be converted into (i) shares of our common stock, and (ii) with respect to holders of Profits Interests who are our employees and consultants at the time of the corporate conversion, options to purchase our common stock. The exercise price of these options will be equal to the offering price. The number of shares of common stock and options to purchase common stock to be issued to each such holder will be determined based upon the appreciation in our value after the date of grant of the applicable Profits Interest through the completion of this offering. Following the corporate conversion, the vesting provisions applicable to the Profits Interests as in effect prior to the corporate conversion will apply, in substantially the same manner, to the shares of common stock and options issued in respect of such Profits Interests.

We anticipate that this equity policy under the current Operating Agreement will be replaced by the 2018 Plan.

2018 Omnibus Incentive Compensation Plan

It is currently anticipated that prior to the completion of this offering, our board of directors and our stockholders will adopt the 2018 Plan, which will become effective on the date on which the registration statement of which this prospectus is part is declared effective by the SEC.

General

The 2018 Plan will cover the grant of awards to our employees (including officers), non-employee consultants and non-employee directors and those of our affiliates. For purposes of the 2018 Plan , our affiliates include any corporation, partnership, limited liability company, joint venture or other entity, with respect to which we, directly or indirectly, own either (i) stock of a corporation possessing more than fifty percent (50%) of the total combined voting power of all classes of stock entitled to vote, or more than fifty percent (50%) of the total value of all shares of all classes of stock of such corporation, or (ii) an aggregate of more than fifty percent (50%) of the profits interest or capital interest of any non-corporate entity.

We expect that the compensation committee of the board of directors will administer the 2018 Plan. The committee may delegate any or all of its administrative authority to our Chief Executive Officer or to a management committee except with respect to awards to executive officers who are subject to Section 16 of the Exchange Act. In addition, the full board of directors must serve as the committee with respect to any awards to our non-employee directors.

Up to a maximum of shares of our common stock may be delivered in settlement of awards granted under the 2018 Plan initially. The number of shares authorized for issuance will increase each year beginning in 2019 by 4% of the number of our shares of common stock issued and outstanding on a fully-diluted basis as of the last day of the preceding fiscal year (or such lesser number of shares as determined by our board of directors in its sole discretion). In no event, however, shall the aggregate number of shares that may be issued pursuant to the 2018 Plan exceed . Up to a maximum of shares of our common stock may be issued under the 2018 Plan pursuant to the exercise of incentive stock options. The stock delivered to settle awards made under the 2018 Plan may be

authorized and unissued shares or treasury shares, including shares repurchased by us for purposes of the 2018 Plan. If any shares subject to any award granted under the 2018 plan (other than a substitute award as described below) is forfeited or otherwise terminated without delivery of such shares (or if such shares are returned to us due to a forfeiture restriction under such award), the shares subject to such awards will again be available for issuance under the 2018 Plan. However, any shares that are withheld or applied as payment for shares issued upon exercise of an award or for the withholding or payment of taxes due upon exercise of the award will continue to be treated as having been delivered under the 2018 Plan and will not again be available for grant under the 2018 Plan. Upon settlement of any stock appreciation rights, or SARs, the number of shares underlying the portion of the SARs that is exercised will be treated as having been delivered for purposes of determining the maximum number of shares available for grant under the 2018 Plan and shall not again be treated as available for issuance under the 2018 Plan.

If a dividend or other distribution (whether in cash, shares of common stock or other property), recapitalization, forward or reverse stock split, subdivision, consolidation or reduction of capital, reorganization, merger, consolidation, scheme of arrangement, split-up, spin-off or combination involving us or repurchase or exchange of our shares or other securities, or other rights to purchase shares of our securities or other similar transaction or event affects our common stock such that the committee determines that an adjustment is appropriate in order to prevent dilution or enlargement of the benefits (or potential benefits) provided to grantees under the 2018 Plan, the committee will make an equitable change or adjustment as it deems appropriate in the number and kind of securities subject to awards (whether or not then outstanding) and the related exercise price relating to an award in order to prevent dilution or enlargement of the benefits or potential benefits intended to be made available under the 2018 Plan.

Types of Awards

The 2018 Plan permits the granting of any or all of the following types of awards to all grantees:

- stock options, including incentive stock options, or ISOs;
- stock appreciation rights, or SARs;
- restricted shares;
- deferred stock and restricted stock units;
- performance units and performance shares;
- dividend equivalents;
- bonus shares; and
- other stock-based awards.

Generally, awards under the 2018 Plan are granted for no consideration other than prior and future services. Awards granted under the 2018 Plan may, in the discretion of the committee, be granted alone or in addition to, in tandem with or in substitution for, any other award under the 2018 Plan or other plan of ours; provided, however, that if an SAR is granted in tandem with an ISO, the SAR and ISO must have the same grant date and term and the exercise price of the SAR may not be less than the exercise price of the ISO. The material terms of each award will be set forth in a written award agreement between the grantee and us.

Stock Options and SARs

The committee is authorized to grant SARs and stock options (including ISOs except that an ISO may only be granted to an employee of ours or one of our subsidiary corporations). A stock option allows a grantee to purchase a specified number of shares of our common stock at a predetermined price per share

(the “exercise price”) during a fixed period measured from the date of grant. An SAR entitles the grantee to receive the excess of the fair market value of a specified number of shares on the date of exercise over a predetermined exercise price per share. The exercise price of an option or an SAR will be determined by the committee and set forth in the award agreement but the exercise price may not be less than the fair market value of a share of common stock on the grant date. The term of each option or SAR is determined by the committee and set forth in the award agreement, except that the term may not exceed 10 years. Options may be exercised by payment of the purchase price through one or more of the following means: payment in cash (including personal check or wire transfer), by delivering shares of our common stock previously owned by the grantee, or with the approval of the committee, by delivery of shares of our common stock acquired upon the exercise of such option or by delivering restricted shares. The committee may also permit a grantee to pay the exercise price of an option through the sale of shares acquired upon exercise of the option through a broker-dealer to whom the grantee has delivered irrevocable instructions to deliver sales proceeds sufficient to pay the purchase price to us. The grant of ISOs are contingent upon shareholder approval of the 2018 Plan within 12 months of its adoption by our board of directors.

Restricted Shares

The committee may award restricted shares consisting of shares of our common stock which remain subject to a risk of forfeiture and may not be disposed of by grantees until certain restrictions established by the committee lapse. The vesting conditions may be service-based (i.e., requiring continuous service for a specified period) or performance-based (i.e., requiring achievement of certain specified performance objectives) or both. A grantee receiving restricted shares will have all of the rights of a stockholder, including the right to vote the shares and the right to receive any dividends, except as otherwise provided in the award agreement. Upon termination of the grantee’s affiliation with us during the restriction period (or, if applicable, upon the failure to satisfy the specified performance objectives during the restriction period), the restricted shares will be forfeited as provided in the award agreement.

Restricted Stock Units and Deferred Stock

The committee may also grant restricted stock unit awards and/or deferred stock awards. A deferred stock award is the grant of a right to receive a specified number of shares of our common stock at the end of specified deferral periods or upon the occurrence of a specified event, which satisfies the requirements of Section 409A of the Internal Revenue Code. A restricted stock unit award is the grant of a right to receive a specified number of shares of our common stock upon lapse of a specified forfeiture condition (such as completion of a specified period of service or achievement of certain specified performance objectives). If the service condition and/or specified performance objectives are not satisfied during the restriction period, the award will lapse without the issuance of the shares underlying such award.

Restricted stock units and deferred stock awards carry no voting or other rights associated with stock ownership until the shares underlying the award are delivered in settlement of the award. The award agreement will provide whether grantees may receive dividend equivalents with respect to restricted stock units or deferred stock, and if so, whether such dividend equivalents are distributed when credited or deemed to be reinvested in additional shares of restricted stock units or deferred stock.

Performance Units

The committee may grant performance units, which entitle a grantee to cash or shares conditioned upon the fulfillment of certain performance conditions and other restrictions as specified by the committee and reflected in the award agreement. The initial value of a performance unit will be determined by the committee at the time of grant. The committee will determine the terms and conditions of such awards, including performance and other restrictions placed on these awards, which will be reflected in the award agreement.

Performance Shares

The committee may grant performance shares, which entitle a grantee to a certain number of shares of common stock, conditioned upon the fulfillment of certain performance conditions and other restrictions as specified by the committee and reflected in the award agreement. The committee will determine the terms and conditions of such awards, including performance and other restrictions placed on these awards, which will be reflected in the award agreement.

Bonus Shares

The committee may grant fully vested shares of our common stock as bonus shares on such terms and conditions as specified in the award agreement.

Dividend Equivalents

The committee is authorized to grant dividend equivalents which provide a grantee the right to receive payment equal to the dividends paid on a specified number of shares of our common stock. Dividend equivalents may be paid directly to grantees or may be deferred for later delivery under the 2018 Plan. If deferred such dividend equivalents may be credited with interest or may be deemed to be invested in shares of our common stock or in other property. No dividend equivalents may be granted in conjunction with any grant of stock options or SARs.

Other Stock-Based Awards

In order to enable us to respond to material developments in the area of taxes and other legislation and regulations and interpretations thereof, and to trends in executive compensation practices, the 2018 Plan authorizes the committee to grant awards that are valued in whole or in part by reference to or otherwise based on our securities. The committee determines the terms and conditions of such awards, including consideration paid for awards granted as share purchase rights and whether awards are paid in shares or cash.

Merger, Consolidation or Similar Corporate Transaction

If there is a merger or consolidation of us with or into another corporation or a sale of substantially all of our stock, or, collectively, a Corporate Transaction, and the outstanding awards are not assumed by surviving company (or its parent company) or replaced with economically equivalent awards granted by the surviving company (or its parent company), the committee will cancel any outstanding awards that are not vested and nonforfeitable as of the consummation of such Corporate Transaction (unless the committee accelerates the vesting of any such awards) and with respect to any vested and nonforfeitable awards, the committee may either (i) allow all grantees to exercise options and SARs within a reasonable period prior to the consummation of the Corporate Transaction and cancel any outstanding options or SARs that remain unexercised upon consummation of the Corporate Transaction, or (ii) cancel any or all of such outstanding awards (including options and SARs) in exchange for a payment (in cash, or in securities or other property) in an amount equal to the amount that the grantee would have received (net of the exercise price with respect to any options or SARs) if the vested awards were settled or distributed or such vested options and SARs were exercised immediately prior to the consummation of the Corporate Transaction. If an exercise price of the option or SAR exceeds the fair market value of our common stock and the option or SAR is not assumed or replaced by the surviving company (or its parent company), such options and SARs will be cancelled without any payment to the grantee.

Amendment to and Termination of the 2018 Plan

The 2018 Plan may be amended, altered, suspended, discontinued or terminated by our board of directors without further stockholder approval, unless such approval of an amendment or alteration is required by law or regulation or under the rules of any stock exchange or automated quotation system

on which the common stock is then listed or quoted. Thus, stockholder approval will not necessarily be required for amendments which might increase the cost of the 2018 Plan or broaden eligibility. Stockholder approval will not be deemed to be required under laws or regulations that condition favorable treatment of grantees on such approval, although our board of directors may, in its discretion, seek stockholder approval in any circumstance in which it deems such approval advisable. No ISOs may be awarded after any amendment to the 2018 Plan that either broadens eligibility or increase the number of shares available for delivery in the form of ISOs unless such amendment is approved by our stockholders within 12 months of the date the board of directors approve the adoption of such amendment.

In addition, subject to the terms of the 2018 Plan, no amendment or termination of the 2018 Plan may materially and adversely affect the right of a grantee under any award granted under the 2018 Plan.

Unless earlier terminated by our board of directors, the 2018 Plan will terminate when no shares remain reserved and available for issuance or, if earlier, on , 2028.

Director Compensation

Other than with respect to Mr. Moody as described below, we have historically generally not provided cash retainers to any of our non-employee directors. We have, upon a member joining our Board, granted awards of Profits Interests to our non-employee directors as compensation for their service on our board. We have also, from time to time, granted Profits Interests to certain board members for service on special committees.

2017 Director Compensation Table

The following table provides information regarding the compensation earned during 2017 by our non-executive directors:

Name	Fees Earned or Paid in Cash ($)	Option Awards ($)[6]	Total ($)
Trevor J. Moody	$ 20,000[1]	$ 0	$20,000
Nicholas Colucci	$ 0	$ 0	$ 0
Thomas J. Errico, M.D.	$ 0	$ 0	$ 0
David M. Rubin, Ph.D.	$ 0	$ 0	$ 0
Peter S. Staats, M.D.[2]	$ 0	$ 0	$ 0
Reese Terry[3]	$ 0	$ 0	$ 0
Kathryn Theofilos[4]	$ 0	$ 0	$ 0
James L.L. Tullis	$ 0	$ 0	$ 0
Jeffrey N. Vinik[5]	$ 0	$ 0	$ 0

(1) Mr. Moody receives $5,000 per quarter for serving on our board of directors.
(2) Dr. Staats did not receive any compensation for his service as a director in 2017. Dr. Staats' compensation for his service as our Chief Medical Officer is fully reflected in "—2017 Summary Compensation table" above. Dr. Staats ceased serving as a member of our board of directors in January 2018.
(3) Mr. Terry served on our board of directors until August 2017.
(4) Ms. Theofilos served as a member of our board of directors until February 2018.
(5) Mr. Vinik ceased serving as a member of our board of directors in March 2018. He was replaced by Michael W. Ross, who does not receive compensation for his service as a director.
(6) Represents the grant date fair value of Common Units issued as Profits Interests in Electrocore, LLC computed in accordance with FASB ASC 718. See Note 13 to the consolidated financial statements for the fiscal year ended December 31, 2016 included with this prospectus for a description of the assumptions used in valuing our Common Units. These Common Units are intended to constitute profits interests for U.S. federal income tax purposes. Despite the fact that the Common Units that are intended to constitute profits interests do not require the payment of an exercise price, we believe they are most similar economically to stock options and are properly classified as "options" under the definition provided in Item 402(a)(6)(i) of Regulation S-K as an instrument with an "option-like feature."

The table below shows the number of vested and unvested Profits Interests, by grant date, held as of December 31, 2017 by each person who served as a non-employee director during the year ended December 31, 2017. The Profits Interests held by Dr. Staats as of December 31, 2017 are reflected in the "Outstanding Awards" table above.

			Profits Interests Vested and Unvested	
Name	Grant Date	Total	Vested	Unvested
Nicholas Colucci	12/1/2017	150,000	0	150,000(1)
Thomas J. Errico, M.D.	1/1/2009	80,000	80,000	0
Trevor J. Moody	4/1/2013	80,000	80,000	0
	9/27/2016	400,000	125,000	275,000(1)
David M. Rubin, Ph.D.	—	—	—	—
Kathryn K. Theofilos	1/1/2009	80,000	80,000	0
Reese Terry	7/5/2014	80,000	80,000	0
	9/27/2016	400,000	400,000	0
James L.L. Tullis	8/1/2014	80,000	80,000	0
Jeffrey N. Vinik	—	—	—	—

(1) Each award vests 25% at the first anniversary of the grant date, and thereafter vests quarterly in equal installments until fully vested at the fourth anniversary. Each award is also subject to acceleration upon a change of control event, as well as upon death or disability as set forth in our standard form of Unit Forfeiture Agreement.

At the effective time of this offering, we intend to implement a Non-Employee Director Compensation Policy, which will provide compensation parameters for our non-employee directors under which each non-employee director will receive the following amounts for their service on our board of directors:

- an inaugural equity award valued at $200,000 shall be made at the effective time of this offering and upon the earlier of any new non-employee director's initial appointment or election to our board of directors. The inaugural grants will vest in three equal annual installments at the close of business on the day before each of the next three annual meetings of stockholders following the grant of such award;
- at each annual meeting of stockholders, an equity award valued at $100,000 as of the date of grant, which will vest in a single installment on the next annual meeting of stockholders;
- an annual cash retainer of $40,000 ; and
- if the director serves on a committee of our board of directors, an additional annual retainer as follows:
  - chairman of the audit committee: $16,000;
  - audit committee member other than the chairman: $8,000;
  - chairman of the compensation committee: $10,000;
  - compensation committee member other than the chairman: $5,000;
  - chairman of the nominating and corporate governance committee: $7,500; and
  - nominating and corporate governance committee member other than the chairman: $3,750.

In the event that an independent chairman of the board is elected, his or her annual cash retainer and annual equity awards will be 150% of the annual cash retainer and annual equity awards granted to other non-employee members of our board of directors.

Each director will have an opportunity to elect to receive his or her inaugural and annual equity awards in the form of stock options, deferred stock units that settle upon separation from service with us or restricted stock units that settle upon vesting. Each current director will need make an initial election before the consummation of this offering and new directors will need to make their elections before becoming a director. Such election will remain in effect for future annual equity awards unless and until the director files a new election with us which will become effective with respect to annual equity awards granted in calendar years following the calendar year in which such election is filed.

Annual cash retainers, annual committee membership retainers and annual committee chair retainers will each be payable in 12 monthly installments on the first day of each month provided that no payment shall be made to any director who is no longer serving as a non-employee member of our board on the relevant payment date. No retainer will be paid under the program for service prior to the program's effectiveness.

Each member of our board of directors is entitled to be reimbursed for reasonable travel and other expenses incurred in connection with attending meetings of the board of directors and any committee of the board of directors on which he or she serves.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Other than compensation agreements and other arrangements which are described under “Executive and Director Compensation” and the transactions described below, since January 1, 2016, there has not been, and there is not currently proposed, any transaction or series of similar transactions to which we were or will be a party in which the amount involved exceeded or will exceed $120,000 and in which any of our directors, executive officers or holders of more than 5% of our capital stock, or 5% Security Holders, or an affiliate or family member thereof, had or will have a direct or indirect material interest.

Operating Agreement of Electrocore, LLC

We are party to the Operating Agreement with our current members. The Operating Agreement, which contains provisions relating to membership interests and the right of our members to appoint the members to our board of directors, will terminate upon the closing of this offering. See “Management—Board Composition.”

Series A Equity Issuances

In March 2016, we consummated a final closing of our Series A financing pursuant to which we issued approximately 3.0 million Series A Preferred Units at an issue price of $0.85 per unit, or approximately $2.6 million in the aggregate. In connection with such closing, GHI, a 5% Security Holder, purchased approximately 1.0 million Series A Preferred Units for $0.9 million and CV II, a 5% Security Holder, purchased approximately 2.0 million Series A Preferred Units for approximately $1.7 million, including amounts converted pursuant to a term loan conversion as described below. In addition, CV II exercised an outstanding warrant and acquired approximately 2.3 million Series A Preferred Units for $1.7 million. Dr. Rubin, one of our directors, serves as a Managing Director of GHI. Mr. Errico and Dr. Errico, two of our directors, have a pecuniary interest in, serve as managers of, and have voting control over CV II.

Term Loan Conversion

In December 2015, CV II loaned us $1.25 million pursuant to a Loan and Security Agreement. In connection with this loan, we issued 66,177 warrants to CV II to purchase Series A Preferred Units at an exercise price of $0.85 per unit. These warrants expire on December 22, 2025. Pursuant to the terms of this loan, CV II elected to convert the term loan of $1.25 million and related accrued interest of $49,935 into approximately 1.5 million Series A Preferred Units in two installments in March 2016 and September 2016 at a price of $0.85 per Unit.

Bridge Financing

Beginning in June 2016, we commenced a note and warrant financing, or the Bridge Financing, pursuant to which we issued to investors a convertible promissory note, or Bridge Note, with annual interest of 10%. Each investor in the Bridge Financing was also issued a warrant, or Bridge Warrant, to purchase a number of shares issued in our next Qualified Equity Financing, or the Next Round Securities, equal to 20% of the original principal amount of the investor’s Bridge Note divided by the purchase price payable for such equity securities in the Qualified Equity Financing, or the Next Round Price. The Bridge Notes, together with all accrued interest, were originally automatically convertible upon the closing of the Qualified Equity Financing into the Next Round Securities at a per share price equal to 90% of the Next Round Price, or optionally convertible at any time at the holder’s option into our Series A Preferred Units at a price of $0.85 per unit.

ECNG is a limited liability company in which Mr. Errico and Dr. Errico have a pecuniary interest, which they serve as managers and over which they have voting control. In June and July 2016, ECNG purchased in the aggregate $1.5 million in Bridge Notes. In September 2016, ECNG converted approximately $1.5 million in principal and accrued interest under its Bridge Notes into approximately 1.8 million Series A Preferred Units.

Following the Bridge Note conversion noted above, the terms of the Bridge Financing were amended to provide that future investors in the Bridge Financing were entitled to receive, in addition to their Bridge Note and Bridge Warrant, up to two Common Units for each dollar invested in the Bridge Financing.

From September 2016 through June 2017, we raised approximately $25.6 million from the issuance of additional Bridge Notes and issued approximately 41.9 million Common Units to the bridge investors. In addition, we issued 5.4 million common units to our financial advisor as compensation for its services. Of these amounts, CV II purchased approximately $16.9 million in Bridge Notes and was issued approximately 33.7 million Common Units.

Series B Financing

Commitment Letter. In July 2017, CV II, GHI, Mr. Tullis, one of our directors, and Tullis Opportunity Fund II, or "TOP II," an entity for which Mr. Tullis serves as the managing partner of its general partner, entered into a commitment letter with us pursuant to which such investors agreed, among other things, to invest in the aggregate approximately $9.0 million in the initial closing of our Series B Preferred Unit financing and to consent to certain amendments to our Operating Agreement. In exchange for such commitments, the investors were issued two Common Units for each dollar committed. The table below summarizes these issuances.

Investor	Series B Commitment Amount	Common Units Issued
GHI	$ 5,000,000	10,000,000
CV II	$ 3,870,000	7,740,000
James L.L. Tullis[1]	$ 300,000	600,000
	$ 9,170,000	18,340,000

(1) Includes amounts for TOP II.

Reduction in Preferred Liquidation Preference. In August 2017, in connection with the initial closing of our Series B Preferred Unit financing, among other things, (i) the holders of our Series A Preferred Units agreed to eliminate approximately $54.9 million in liquidation preference in exchange for the issuance to such holders of approximately 46.9 million Common Units, and (ii) the holders of Common Units that were entitled to approximately $30.9 million in liquidation preference agreed to eliminate such preference in exchange for the issuance to such holders of approximately 26.4 million Common Units. The table below summarizes the issuances to certain related parties in connection with this transaction.

Member	Common Units Issued in Exchange for Reduction in Liquidation Preference
GHI	15,384,615
CV II [1]	32,818,632
ECNG, LLC	1,304,356
James L.L. Tullis [2]	1,442,308

(1) Includes units issued for the benefit of Mr. Errico, Dr. Errico and Mrs. Theofilos, and their affiliates.
(2) Includes units issued to TOP II and Mr. Tullis' spouse and family, and trusts for the benefit of his spouse and family.

Initial Series B Closing. In August 2017, we consummated the initial closing of our Series B Preferred Unit financing pursuant to which we issued approximately 51.3 million Series B Preferred Units for approximately $35.8 million in the aggregate. Each investor in our Series B financing was issued Series B

Preferred Units at a price of $0.70 per unit, together with a warrant, or Series B Common Warrant, to purchase a number of our Common Units equal to 50% of the original issue price of the Series B Preferred Units purchased by such investor in our Series B Preferred Unit financing, divided by $1.25. The exercise price for the Common Units purchasable pursuant to the Series B Common Warrants is $1.25 per unit and the Series B Common Warrants have a five-year term; provided that the Series B Common Warrants will expire upon the closing of this offering, if not previously exercised. The table below summarizes the issuances at our initial Series B closing to certain related parties.

Purchaser	Series B Investment Amount	Series B Units Purchased	Common Units Underlying Series B Common Warrants
GHI	$ 5,000,000	7,142,858	2,000,000
CV II [1]	$ 21,530,416	30,757,737	8,612,166
ECNG, LLC	$ 990,463	1,414,947	396,185
James L.L. Tullis [2]	$ 300,000	428,572	120,000

(1) Includes the conversion of approximately $17.7 million in principal and accrued interest under outstanding Bridge Notes.
(2) Includes amounts for TOP II.

Additional Series B Closings. From September through December 2017, we consummated additional closings under our Series B financing pursuant to which we issued in the aggregate an additional approximately 53.9 million Series B Preferred Units at an issue price of $0.70 per unit, or approximately $37.8 million in the aggregate. In connection with such closings, certain related parties purchased Series B Preferred Units. Each investor in our additional Series B closings was issued a Series B Common Warrant in the form of the initial Series B Preferred Unit closing, except that the terms of the Series B Preferred Units financing were amended to provide that for any investor who, together with its affiliates, purchased not less than $15.0 million of Series B Preferred Units (excluding amounts purchased at the initial Series B closing), the Series B Common Warrant coverage amount for such investor was increased from 50% to 100%. The table below summarizes the issuances at our additional Series B closings to certain related parties.

Purchaser	Series B Investment Amount	Series B Preferred Units Purchased	Common Units Underlying Series B Common Warrants
American Investment Holdings[1]	$ 11,000,000	15,714,286	8,800,000
Vinik Family Foundation[1]	$ 4,000,000	5,714,286	3,200,000
CV II	$ 8,400,000	12,000,000	3,360,000

(1) American Investment Holdings and Vinik Family Foundation are affiliates of Jeffrey N. Vinik, who served as one of our directors during 2017 and resigned in March 2018. AIH-Electro, LLC designated Michael W. Ross to replace Mr. Vinik on our board of directors in March 2018.

Investor Rights Agreement

Pursuant to the terms of our Amended and Restated Investor Rights Agreement, certain holders of our units, including CV II, GHI, ECNG, TOP II, Mr. Errico, Dr. Errico, Mrs. Theofilos, and certain of their affiliates, are entitled to certain demand and piggyback registration rights with respect to our securities held by them, certain information and observer rights, and certain additional rights. Certain provisions of the investor rights agreement will terminate in connection with this offering. See “Description of Capital Stock” for additional information.

Agreement with Publicis Healthcare Solutions, Inc.

We are a party to a master services agreement with Publicis Healthcare Solutions, Inc., or Publicis, a leading provider of pharmaceutical support services and contract sales personnel. Publicis is an affiliate of Publicis Health, whose chairman and former Chief Executive Officer is Nicholas Colucci. Mr. Colucci has served on our board of directors since August 2017. During 2017, we paid Publicis approximately $950,000 for its services and provision of two medical science liaisons on terms we consider to be arms' length between the parties.

Conversion to Corporate Form

Prior to the closing of this offering, we will convert from a Delaware limited liability company to a Delaware corporation under the name electroCore, Inc. Existing holders, including our 5% Security Holders, executive officers and directors, of our Common Units, Series A Preferred Units and Series B Preferred Units, and warrants to purchase our Units, will receive the number of shares of common stock, the number of warrants, and the number of options, respectively, described in this prospectus as a result of the corporate conversion. The existing securities held by our officers, directors, nominees for director and 5% Security Holders, executive officers and directors will be converted on the same basis as all other holders of such securities. See "Corporate Conversion" and "Principal Stockholders" for additional information.

The following table details the number of Profits Interests held by each of our executive officers and the number of shares of common stock and options each executive officer will receive as a result of the conversion of these Profits Interest in the corporation conversion.

Name	Profits Interest	Shares of common stock upon corporate conversion	Options granted upon corporate conversion
Francis R. Amato	16,832,573		
Joseph P. Errico	11,901,715		
Peter S. Staats, M.D.	4,380,000		
Glenn S. Vraniak	4,585,858		

Limitation of Liability and Indemnification

As permitted by Delaware law, we intend to adopt provisions in our certificate of incorporation, which will be effective as of the closing date of this offering, that limit or eliminate the personal liability of our directors. Our certificate of incorporation will limit the liability of directors to the maximum extent permitted by Delaware law. Delaware law provides that directors of a corporation will not be personally liable for monetary damages for breaches of their fiduciary duties as directors, except liability for:

- any breach of the director's duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- any unlawful payments related to dividends or unlawful stock repurchases, redemptions or other distributions; or
- any transaction from which the director derived an improper personal benefit.

These limitations do not apply to liabilities arising under federal securities laws and do not affect the availability of equitable remedies, including injunctive relief or rescission. If Delaware law is amended to authorize the further elimination or limiting of a director, then the liability of our directors will be eliminated or limited to the fullest extent permitted by Delaware law as so amended.

As permitted by Delaware law, our certificate of incorporation that will be effective as of the closing date of this offering will also provide that:

- we will indemnify our directors and officers to the fullest extent permitted by law;
- we may indemnify our other employees and other agents to the same extent that we indemnify our officers and directors, unless otherwise determined by our board of directors; and
- we will advance expenses to our directors and officers in connection with legal proceedings in connection with a legal proceeding to the fullest extent permitted by law.

We anticipate entering into indemnification agreements with our directors and officers to provide such officers and directors with additional contractual assurances regarding the scope of their indemnification. We expect that each of these indemnification agreements will provide that we will indemnify the director or officer to the fullest extent permitted by law for claims arising in his capacity as a director or officer, provided that he acted in good faith and in a manner that he reasonably believed to be in, or not opposed to, our best interests and, with respect to any criminal proceeding, had no reasonable cause to believe that his conduct was unlawful. We expect that each of these indemnification agreements will provide that in the event that we do not assume the defense of a claim against a director or officer, we will be required to advance his expenses in connection with his defense, provided that he undertakes to repay all amounts advanced if it is ultimately determined that he is not entitled to be indemnified by us.

We also intend to purchase and maintain insurance on behalf of any person who is or was a director or officer against any loss arising from any claim asserted against him or her and incurred by him or her in any such capacity, subject to certain exclusions.

We believe that these provisions and agreements are necessary to attract and retain qualified persons as directors and officers. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling our company pursuant to the foregoing provisions, we understand that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Policies and Procedures with Respect to Related Party Transactions

In accordance with the charter of our audit committee, which will become effective upon the closing of this offering, and our policy on related party transactions, which our board of directors will adopt in connection with this offering, our audit committee will be responsible for reviewing and approving related party transactions. The related party transaction policy will apply to transactions, arrangements and relationships where the aggregate amount involved will or may be expected to exceed $120,000 in any calendar year, where we are a participant and in which a related person has or will have a direct or indirect material interest. A related person is: (1) any of our directors, nominees for director or executive officers; (2) any immediate family member of a director, nominee for director or executive officer; and (3) any person, and his or her immediate family members, or entity that was a beneficial owner of 5% or more of any of our outstanding equity securities at the time the transaction occurred or existed.

In the course of its review and approval of related party transactions, our audit committee will consider the relevant facts and circumstances to decide whether to approve such transactions. Our audit committee will approve only those transactions that it determines are in our best interest. In particular, our policy on related party transactions will require our audit committee to consider, among other factors it deems appropriate:

- whether the related party transaction is on terms no less favorable than terms generally available to an unaffiliated third party under the same or similar circumstances; and
- the extent of the related party’s interest in the transaction.

Pursuant to our policy on related party transactions, our audit committee will identify the following categories of transactions as deemed to be preapproved by the audit committee, even if the aggregate amount involved exceeds the $120,000 threshold:

- our employment of any executive officer or compensation paid by us to any executive officer if our compensation committee approved (or recommended that our board of directors approve) such compensation;
- any compensation paid to a director if the compensation is required to be reported in our proxy statement under Item 402 of the SEC's compensation disclosure requirements;
- any transaction with another company at which a related person's only relationship is as an employee (other than an executive officer), director or beneficial owner of less than 10% of that company's shares, if the aggregate amount involved does not exceed the greater of $1.0 million, or 2% of that company's total annual net product revenues;
- any charitable contribution, grant or endowment made by us to a charitable organization, foundation or university at which a related person's only relationship is as an employee (other than an executive officer) or a director, if the aggregate amount involved does not exceed the lesser of $1.0 million, or 2% of the charitable organization's total annual receipts;
- any transaction where the related person's interest arises solely from the ownership of our common stock and all holders of our common stock received the same benefit on a pro rata basis;
- any transaction involving a related person where the rates or charges involved are determined by competitive bids;
- any transaction with a related person involving the rendering of services as a common or contract carrier, or public utility, at rates or charges fixed in conformity with law or governmental authority; and
- any transaction with a related person involving services as a bank depositary of funds, transfer agent, registrar, trustee under a trust indenture, or similar services.

In addition, our code of business conduct and ethics, which will become effective upon the closing of this offering, requires that each of our employees and directors inform his or her superior or the chairman of the audit committee, respectively, of any material transaction or relationship that comes to their attention that could reasonably be expected to create a conflict of interest. Further, at least annually, each director and executive officer will complete a detailed questionnaire that asks questions about any business relationship that may give rise to a conflict of interest and all transactions in which we are involved and in which the executive officer, a director or a related person has a direct or indirect material interest.

PRINCIPAL STOCKHOLDERS

The following table sets forth information as of , 2018 regarding the beneficial ownership of our common stock, giving pro forma effect to our conversion from a Delaware limited liability company to a Delaware corporation, by:

- each person or group who is known by us to beneficially own more than 5% of our outstanding shares of common stock;
- each of our executive officers;
- each of our directors; and
- all of our executive officers and directors as a group.

Beneficial ownership for the purposes of the following table is determined in accordance with the rules and regulations of the SEC. These rules generally provide that a person is the beneficial owner of securities if such person has or shares the power to vote or direct the voting of securities, or to dispose or direct the disposition of securities or has the right to acquire such powers within 60 days. For purposes of calculating each person's percentage ownership, common stock issuable pursuant to options exercisable within 60 days are included as outstanding and beneficially owned for that person or group, but are not deemed outstanding for the purposes of computing the percentage ownership of any other person. Except as disclosed in the footnotes to this table and subject to applicable community property laws, we believe that each beneficial owner identified in the table possesses sole voting and investment power over all common stock shown as beneficially owned by the beneficial owner.

The percentage of beneficial ownership is based on shares of common stock outstanding prior to this offering after giving effect to our conversion from a Delaware limited liability company to a Delaware corporation, shares of common stock to be outstanding after the completion of this offering, assuming no exercise of the underwriters' option to purchase additional shares of our common stock and shares of common stock to be outstanding after the completion of this offering, assuming exercise of the underwriters' option to purchase additional shares of our common stock in full. The percentage of beneficial ownership further assumes that the corporate conversion had occurred on , based on the assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus).

The number of shares of common stock, and the number of shares of common stock subject to options, of electroCore, Inc. that holders of our Profits Interest will receive in the corporate conversion will vary depending on the initial public offering price set forth on the cover page of this prospectus. See "Corporate Conversion" and "Pricing Sensitivity Analysis" for additional information.

Unless otherwise indicated in the table or footnotes below, the address for each beneficial owner is c/o Electrocore, LLC, 150 Allen Road, Suite 201, Basking Ridge, New Jersey 07920.

	Prior to this offering		After this offering			
			Assuming underwriters' option to purchase additional shares is not exercised		Assuming underwriters' option to purchase additional shares is exercised in full	
	Number of Shares beneficially owned		Number of shares beneficially owned		Number of shares beneficially owned	
Name	Number of Shares	Percentage of Shares	Number of shares	Percentage of shares	Number of shares	Percentage of shares
5% or more stockholders						
Core Ventures II, LLC[1]						
101 JFK Parkway, Short Hills, NJ 07078		%		%		%
Merck Global Health Innovation Fund, One Merck Drive 2W116, Whitehouse Station, NJ 08889		%		%		%
Executive officers and directors						
Francis R. Amato[2]		%		%		%
Joseph P. Errico[3]		%		%		%
Peter S. Staats, M.D.[4]		%		%		%
Glenn S. Vraniak[5]		%		%		%
Michael G. Atieh[6]		%		%		%
Nicholas Colucci[7]		%		%		%
Thomas J. Errico, M.D.[8]		%		%		%
Trevor Moody[9]		%		%		%
Stephen L. Ondra, M.D.[10]		%		%		%
Michael W. Ross[11]		%		%		%
David Rubin, Ph.D.[12]		%		%		%
James L.L. Tullis[13]		%		%		%
Executive officers and directors as a group (persons)		%		%		%

* Represents less than 1%.

(1) Joseph P. Ericco and Thomas J. Errico, M.D., are the managing members of Core Ventures II, LLC, or CV II, and as such have shared voting and dispositive power over its shares.

(2) Includes (i) shares held directly by Mr. Amato, (ii) shares held for the benefit of Mr. Amato indirectly by CV II, and (iii) shares of common stock which may be acquired upon the exercise of stock options which have vested or will vest within 60 days of the filing of this prospectus.

(3) Includes (i) shares held directly by Mr. Errico and shares held by Mr. Errico's spouse, children and trusts for the benefit of Mr. Errico's spouse and children, (ii) shares held for the benefit of Mr. Errico indirectly by CV II and other entities, and (iii) shares of common stock which may be acquired upon the exercise of stock options which have vested or will vest within 60 days of the filing of this prospectus. Also includes shares held by CV II and other entities (the "Other Entities") for the benefit of persons other than Mr. Errico. Mr. Errico serves as a manager of CV II and the Other Entities and has or shares voting control over such shares.

(4) Includes (i) shares held directly by Dr. Staats and his spouse, (ii) shares held by Prand Enterprises, LLC, (iii) shares held for the benefit of Prand Enterprises, LLC indirectly by CV II and the Other Entities, and (iv) shares of common stock which may be acquired upon the exercise of stock options which have vested or will vest within 60 days of the filing of this prospectus.

(5) Includes (i) shares held directly by Mr. Vraniak, and (ii) shares of common stock which may be acquired upon the exercise of stock options which have vested or will vest within 60 days of the filing of this prospectus.

(6) Mr. Atieh is a director designee.

(7) Includes (i) shares held directly by Mr. Colucci, (ii) shares held for the benefit of Mr. Colucci indirectly by CV II and the Other Entities, and (iii) shares of common stock which may be acquired upon the exercise of stock options which have vested or will vest within 60 days of the filing of this prospectus.

(8) Includes (i) shares held directly by Dr. Errico and shares held by trusts for the benefit of Dr. Errico's family members, (ii) shares held for the benefit of Dr. Errico indirectly by CV II and the Other Entities, and (iii) shares of common stock which may be acquired upon the exercise of stock options which have vested or will vest within 60 days of the filing of this prospectus. Also includes shares held by CV II and the Other Entities for the benefit of persons other than Dr. Errico. Dr. Errico serves as a manager of CV II and the Other Entities and has or shares voting control over such shares.

(9) Includes (i) shares held directly by Mr. Moody, and (ii) shares of common stock which may be acquired upon the exercise of stock options which have vested or will vest within 60 days of the filing of this prospectus.

(10) Dr. Ondra is a director designee.

(11) Mr. Ross was appointed to our board of directors by American Investment Holdings, LLC, but he does not have nor share voting power wither respect to shares of our capital stock owned by American Investment Holdings, LLC.

(12) Dr. Rubin is the managing director of Merck GHI, but he does not have nor share voting power with respect to shares of our capital stock owned by Merck GHI.

(13) Represents (i) shares held directly by Mr. Tullis and shares held directly by his spouse and family trusts, (ii) shares held directly by Tullis Opportunity Fund II LP, and (iii) shares of common stock which may be acquired upon the exercise of stock options which have vested or will vest within 60 days of the filing of this prospectus.

PRICING SENSITIVITY ANALYSIS

Throughout this prospectus we provide information assuming that the initial public offering price per share of common stock is $, which is the mid-point of the estimated price range set forth on the cover of this prospectus. However, some of the information that we provide will be affected if the initial public offering price per share of common stock in this offering is different from the mid-point of the estimated price range set forth on the cover of this prospectus. The following table presents how some of the information set forth in this prospectus would be affected by an initial public offering price per share of common stock at the low-, mid- and high-points of the estimated price range set forth on the cover of this prospectus, assuming that the underwriters' option to purchase additional common units is not exercised. See "Corporate Conversion" for additional information.

	Price per share		
	$	$	$
	(in thousands, except percentages and per share data)		
Shares, warrants and options issued in corporate conversion			
Common stock issuable for:			
Common Units			
Series A Preferred Units			
Series B Preferred Units			
Profits Interests			
Total			
Warrants issuable for:			
Common Units			
Series A Preferred Units			
Series B Preferred Units			
Total			
Options issuable for:			
Common Units			
Equity ownership percentages following this offering			
Existing owners in this offering	%	%	%
New investors in this offering	%	%	%
	100.0%	100.0%	100.0%
Existing owners in this offering assuming exercise of all outstanding options and warrants	%	%	%
New investors in this offering assuming exercise of all outstanding options and warrants	%	%	%
	100.0%	100.0%	100.0%
Net proceeds			
Net proceeds from this offering	$	$	$
Pro forma as adjusted capitalization			
Cash and cash equivalents	$	$	$
Total debt			
Stockholders' equity (deficit)			
Common stock, $0.001 par value per share			
Preferred stock, $0.001 par value per share			
Additional paid-in capital			
Accumulated deficit			
Accumulated other comprehensive income			
Total stockholders' equity (deficit)			
Total capitalization	$	$	$
Dilution			
Pro forma as adjusted net tangible book deficit per share after giving effect to this offering	$	$	$
Dilution per share to new investors in this offering			
Pro forma as adjusted net tangible book deficit per share after giving effect to this offering assuming exercise of all outstanding options and warrants			
Dilution per share to new investors in this offering assuming exercise of all outstanding options and warrants			

In addition, throughout this prospectus we provide information assuming that the underwriters' option to purchase additional shares of common stock from us is not exercised. However, some of the information that we provide will be affected if the underwriters' option to purchase additional shares of common stock is exercised. The following table presents how some of the information set forth in this prospectus would be affected if the underwriters exercise in full their option to purchase additional shares of common stock where the initial public offering price per share of common stock is at the low-, mid- and high-points of the estimated price range set forth on the cover of this prospectus.

	Price per share		
	$	$	$
	(in thousands, except percentages and per share data)		
Shares, warrants and options issued in conversion			
Common stock issuable for:			
Common Units			
Series A Preferred Units			
Series B Preferred Units			
Profits Interests			
Total			
Warrants issuable for:			
Common Unit			
Series A Preferred Units			
Series B Preferred Units			
Total			
Options issuable for:			
Common Units			
Equity ownership percentages following this offering			
Existing owners in this offering	%	%	%
New investors in this offering	%	%	%
	100.0%	100.0%	100.0%
Existing owners in this offering assuming exercise of all outstanding options and warrants	%	%	%
New investors in this offering assuming exercise of all outstanding options and warrants	%	%	%
	100.0%	100.0%	100.0%
Net proceeds			
Net proceeds from this offering	$	$	$
Pro forma as adjusted capitalization			
Cash and cash equivalents	$	$	$
Total debt			
Stockholders' equity (deficit)			
Common stock, $0.001 par value per share			
Preferred stock, $0.001 par value per share			
Additional paid-in capital			
Accumulated deficit			
Accumulated other comprehensive income			
Total stockholders' equity (deficit)			
Total capitalization	$	$	$
Dilution			
Pro forma as adjusted net tangible book deficit per share after giving effect to this offering	$	$	$
Dilution per share to new investors in this offering			
Pro forma as adjusted net tangible book deficit per share after giving effect to this offering assuming exercise of all outstanding options and warrants			
Dilution per share to new investors in this offering assuming exercise of all outstanding options and warrants			

DESCRIPTION OF CAPITAL STOCK

The following description summarizes important terms of our capital stock. For a complete description, you should refer to our certificate of incorporation and bylaws, forms of which have been filed as exhibits to the registration statement of which this prospectus is a part, as well as the relevant portions of the DGCL. References to our certificate of incorporation and bylaws are to our certificate of incorporation and our bylaws, respectively, each of which will become effective upon completion of the corporate conversion that will occur prior to the closing of this offering. The description of our common stock and preferred stock reflects the completion of the corporate conversion that will occur prior to the closing of this offering.

General

Upon the closing of this offering, our authorized capital stock will consist of: (i) 500,000,000 shares of common stock, par value $0.001 per share; and (ii) 10,000,000 shares of preferred stock, par value $0.001 per share.

As of , 2018, we had no outstanding shares of common stock, and no holders of common stock of record, After giving effect to the completion of the corporate conversion described above in the section entitled “Corporate Conversion” and based on an assumed initial public offering price of $ (the midpoint of the range set forth on the cover page of this prospectus), upon completion of the corporate conversion and the closing of this offering, there will be shares of common stock outstanding and no shares of preferred stock outstanding. See “Corporate Conversion” and “Pricing Sensitivity Analysis” for additional information

Common Stock

Voting Rights

Each holder of our common stock will be entitled to one vote for each share on all matters submitted to a vote of the stockholders, including the election of directors. Under our certificate of incorporation and our amended and restated bylaws that will be in effect following the completion of this offering, our stockholders will not have cumulative voting rights. Because of this, the holders of a majority of the shares of common stock entitled to vote in any election of directors will be able to elect all of the directors standing for election, if they should so choose.

Dividend Rights

Subject to preferences that may be applicable to any then-outstanding preferred stock, holders of common stock will not be entitled to receive ratably those dividends, if any, as may be declared from time to time by the board of directors out of legally available funds.

Liquidation Rights

In the event of our liquidation, dissolution or winding up, holders of common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities and the satisfaction of any liquidation preference granted to the holders of any then-outstanding shares of preferred stock.

Other Rights and Preferences

Holders of our common stock will have no preemptive, conversion or subscription rights and there will be no redemption or sinking fund provisions applicable to the common stock. The rights, preferences and privileges of the holders of common stock will be subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that we may designate in the future.

Preferred Stock

Following the corporate conversion and the completion of this offering, our board of directors will have the authority, without further action by our stockholders, to issue up to shares of preferred stock in one or more series, to establish from time to time the number of shares to be included in each such series, to fix the rights, preferences and privileges of the shares of each series and any qualifications, limitations or restrictions thereon, and to increase or decrease the number of shares of any such series, but not below the number of shares of such series then outstanding.

Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of our common stock. The purpose of authorizing our board of directors to issue preferred stock and determine its rights and preferences is to eliminate delays associated with a stockholder vote on specific issuances. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change of control of our company and may adversely affect the market price of our common stock and the voting and other rights of the holders of our common stock. It is not possible to state the actual effect of the issuance of any shares of preferred stock on the rights of holders of common stock until the board of directors determines the specific rights attached to that preferred stock.

We have no present plans to issue any shares of preferred stock.

Registration Rights

Under our Amended and Restated Investor Rights Agreement, following the consummation of this offering, the holders of approximately shares of common stock, or their transferees, will have the right to require us to register their shares under the Securities Act so that those shares may be publicly resold, or to include their shares in any registration statement we file, in each case as described below.

Demand Registration Rights

Based on the number of shares outstanding as of 2018, after the consummation of this offering, the holders of approximately shares of our common stock (on an as-converted basis), or their transferees, will be entitled to certain demand registration rights. Beginning one hundred eighty (180) days following the effectiveness of the registration statement of which this prospectus is a part, the holders of at least 55% of these shares can, on not more than three occasions, request that we register at least 40% of the shares issued to such holders, or a lesser percentage if the anticipated aggregate offering price, net of underwriting discounts and commissions, would exceed $5,000,000. Additionally, we will not be required to effect a demand registration during the period beginning 60 days prior to our good faith estimate of the filing of, and ending 180 days following the effectiveness of, a company-initiated registration statement relating to an initial public offering of our securities. These registration rights are further subject to specified conditions and limitations, including the right of the underwriters, if any, to limit the number of shares included in any such registration under specified circumstances. Upon such a request, we are required to use commercially reasonable efforts to effect the registration as soon as practicable.

Piggyback Registration Rights

Based on the number of shares outstanding as of 2018, after the consummation of this offering, in the event that we determine to register any of our securities under the Securities Act (subject to certain exceptions), either for our own account or for the account of other security holders, the holders of approximately shares of our common stock (on an as-converted basis), or their transferees, will be entitled to certain “piggyback” registration rights allowing the holders to include their shares in such

registration, subject to certain marketing and other limitations. As a result, whenever we propose to file a registration statement under the Securities Act, other than with respect to a registration related to employee benefit plans, the offer and sale of debt securities, or corporate reorganizations or certain other transactions, the holders of these shares are entitled to notice of the registration and have the right, subject to limitations that the underwriters may impose on the number of shares included in the registration, to include their shares in the registration. In an underwritten offering, the managing underwriter, if any, has the right, subject to specified conditions, to limit the number of shares such holders may include.

Registration on Form S-3

Based on the number of shares outstanding as of 2018, after the consummation of this offering, the holders of approximately shares of our common stock (on an as-converted basis), or their transferees, will be entitled to certain Form S-3 registration rights. The holders of at least 20% of these shares can make a written request that we register their shares on Form S-3 if we are eligible to file a registration statement on Form S-3 and if the aggregate price to the public of the shares offered is at least $500,000 net of certain expenses related to the sale of the shares. These stockholders may make an unlimited number of requests for registration on Form S-3, but in no event shall we be required to file more than two registrations on Form S-3 within any 12-month period.

Expenses of Registration

We will pay all expenses relating to any demand, piggyback or Form S-3 registration, other than underwriting discounts and commissions, subject to specified conditions and limitations.

Termination of Registration Rights

The registration rights granted under the Amended and Restated Investor Rights Agreement will terminate, with respect to a particular holder, at the earlier of: (i) such time as that holder and its affiliates may sell all of their shares of common stock pursuant to Rule 144 under the Securities Act during any 90-day period; and (ii) the seven year anniversary of this offering.

Anti-Takeover Provisions

The provisions of Delaware law, and our certificate of incorporation and our bylaws could have the effect of delaying, deferring or discouraging another person from acquiring control of our company. These provisions, which are summarized below, may have the effect of discouraging takeover bids. They are also designed, in part, to encourage persons seeking to acquire control of us to negotiate first with our board of directors. We believe that the benefits of increased protection of our potential ability to negotiate with an unfriendly or unsolicited acquirer outweigh the disadvantages of discouraging a proposal to acquire us because negotiation of these proposals could result in an improvement of their terms.

Section 203 of the Delaware General Corporation Law

We are subject to Section 203 of the DGCL, which prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years after the date that such stockholder became an interested stockholder, with the following exceptions:

- before such date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the

corporation outstanding at the time the transaction began, excluding for purposes of determining the voting stock outstanding, but not the outstanding voting stock owned by the interested stockholder, those shares owned (i) by persons who are directors and also officers and (ii) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or

- on or after such date, the business combination is approved by the board of directors and authorized at an annual or special meeting of the stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

In general, Section 203 defines a "business combination" to include the following:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- subject to specified exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock or any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits by or through the corporation.

In general, Section 203 defines an "interested stockholder" as an entity or person who, together with the person's affiliates and associates, beneficially owns, or within three years prior to the time of determination of interested stockholder status did own, 15% or more of the outstanding voting stock of the corporation.

Our Certificate of Incorporation and Bylaws

Our certificate of incorporation and bylaws will include a number of provisions that could deter hostile takeovers or delay or prevent changes in control of our company, including the following:

- ***Classified Board.*** Our certificate of incorporation will provide for our board of directors to be divided into three classes with staggered three-year terms. Only one class of directors will be elected at each annual meeting of our stockholders, with the other classes continuing for the remainder of their respective three-year terms. Because our stockholders do not have cumulative voting rights, stockholders holding a majority of the shares of common stock outstanding will be able to elect all of our directors. Our certificate of incorporation and our bylaws will also provide that directors may be removed by the stockholders only for cause upon the vote of 66 2/3% or more of our outstanding common stock. Furthermore, the authorized number of directors may be changed only by resolution of the board of directors, and vacancies and newly created directorships on the board of directors may, except as otherwise required by law or determined by the board, only be filled by a majority vote of the directors then serving on the board, even though less than a quorum.
- ***Special Meetings of Stockholders and Stockholder Action by Written Consent.*** Our certificate of incorporation and bylaws will provide that all stockholder actions must be effected at a duly called meeting of stockholders and will eliminate the right of stockholders to act by written consent without a meeting. Our bylaws will also provide that only our

chairman of the board, Chief Executive Officer (or if there is no Chief Executive Officer, the President) or the board of directors pursuant to a resolution adopted by a majority of the total number of authorized directors may call a special meeting of stockholders.

- ***Advance Notice Requirements for Stockholder Proposals***. Our bylaws will provide that stockholders seeking to present proposals before a meeting of stockholders, including the nomination of director candidates, must provide timely advance notice in writing, and will specify requirements as to the form and content of a stockholder's notice.
- ***Amendment to Certificate of Incorporation and Bylaws.*** Our certificate of incorporation and bylaws will provide that the stockholders cannot amend the provisions described above except by a vote of 66 2/3% or more of our outstanding common stock.

The combination of these provisions will make it more difficult for our existing stockholders to replace our board of directors as well as for another party to obtain control of us by replacing our board of directors. Since our board of directors has the power to retain and discharge our officers, these provisions could also make it more difficult for existing stockholders or another party to effect a change in management. In addition, the authorization of undesignated preferred stock makes it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede any attempt to effect a change of control of our company.

These provisions are intended to enhance the likelihood of continued stability in the composition of our board of directors and its policies and to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to reduce our vulnerability to hostile takeovers and to discourage tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and may have the effect of delaying changes in our control or management. As a consequence, these provisions may also inhibit fluctuations in the market price of our stock that could result from actual or rumored takeover attempts. We believe that the benefits of these provisions, including increased protection of our potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure our company, outweigh the disadvantages of discouraging takeover proposals, because negotiation of takeover proposals could result in an improvement of their terms.

Choice of Forum

Our certificate of incorporation will provide that the Court of Chancery of the state of Delaware will be the exclusive forum for: (i) any derivative action or proceeding brought on our behalf; (ii) any action asserting a breach of fiduciary duty; (iii) any action asserting a claim against us arising pursuant to the DGCL, our certificate of incorporation or our bylaws; (iv) or any action asserting a claim against us that is governed by the internal affairs doctrine. Our certificate of incorporation further provides that the federal district courts of the United States will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act. The enforceability of similar choice of forum provisions in some other companies' certificates of incorporation has been challenged in legal proceedings, and it is possible that, in connection with any action, a court could find the choice of forum provisions contained in our certificate of incorporation to be inapplicable or unenforceable in such action.

Limitation of Liability and Indemnification

Our certificate of incorporation will provide that no director will be personally liable for monetary damages for breach of any fiduciary duty as a director, except with respect to liability:

- for any breach of the director's duty of loyalty to us or our stockholders;
- for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;

- under Section 174 of the DGCL (governing distributions to stockholders); or
- for any transaction from which the director derived any improper personal benefit.

If the DGCL is amended to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of our directors will be eliminated or limited to the fullest extent permitted by the DGCL, as so amended. The modification or repeal of this provision of our certificate of incorporation will not adversely affect any right or protection of a director existing at the time of such modification or repeal.

Our bylaws will also provide that we will, to the fullest extent permitted by law, indemnify our directors and officers against all liabilities and expenses in any suit or proceeding or arising out of their status as an officer or director or their activities in these capacities. We will also indemnify any person who, at our request, is or was serving as a director, officer, employee, agent or trustee of another corporation or of a partnership, limited liability company, joint venture, trust or other enterprise. We may, by action of our board of directors, provide indemnification to our employees and agents within the same scope and effect as the foregoing indemnification of directors and officers.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock will be Broadridge Corporate Issuer Solutions, Inc. 1717 Arch Street, Suite 1300, Philadelphia, Pennsylvania 19103.

Stock Exchange Listing

We have applied to list our common stock on the Nasdaq Global Select Market under the symbol “ECOR.”

SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has not been a public market for shares of our common stock, and we cannot predict the effect, if any, that market sales of shares of our common stock or the availability of shares of our common stock for sale will have on the market price of our common stock prevailing from time to time. Nevertheless, sales of substantial amounts of our common stock, including shares issued upon exercise of outstanding options, in the public market following this offering could adversely affect market prices prevailing from time to time and could impair our ability to raise capital through the sale of our equity securities.

Based upon the number of shares of our common stock outstanding as of December 31, 2017, and after giving effect to the corporate conversion, based on the assumed initial public offering price of $ (the midpoint of the price range set forth on the cover page of this prospectus) we will have shares of common stock outstanding upon the closing of this offering. Of these outstanding shares, all of the shares of common stock sold in this offering will be freely tradable, except that any shares purchased in this offering by our affiliates, as that term is defined in Rule 144 under the Securities Act, would only be able to be sold in compliance with the Rule 144 limitations described below.

The remaining outstanding shares of our common stock will be deemed "restricted securities" as defined in Rule 144. Restricted securities may be sold in the public market only if they are registered under the Securities Act or if they qualify for an exemption from registration under Rule 144 or Rule 701 promulgated under the Securities Act, which rules are summarized below. In addition, all of our security holders have entered into market standoff agreements with us or lock-up agreements with the underwriters under which they have agreed, subject to specific exceptions, not to sell any of our stock for at least 180 days following the date of this prospectus, as described below. As a result of these agreements and the provisions of our amended and restated investors' rights agreement described above under "Description of Capital Stock—Registration Rights," subject to the provisions of Rule 144 or Rule 701, shares will be available for sale in the public market as follows:

- beginning on the date of this prospectus, all of the shares sold in this offering will be immediately available for sale in the public market (except as described above); and
- beginning 181 days after the date of this prospectus, additional shares will become eligible for sale in the public market, of which shares will be held by affiliates and subject to the volume and other restrictions of Rule 144, as described below.

Lock-Up and Market Standoff Agreements

All of our directors, executive officers and substantially all of our security holders are subject to lock-up agreements or market standoff provisions that, subject to certain exceptions, prohibit them from directly or indirectly offering, pledging, selling, contracting to sell, selling any option or contract to purchase, purchasing any option or contract to purchase, granting any option, right or warrant to purchase or otherwise transferring or disposing of any shares of our common stock, options to acquire shares of our common stock or any securities convertible into or exercisable or exchangeable for common stock, whether now owned or hereafter acquired, or entering into any swap or any other agreement or any transaction that transfer, in whole or in part, directly or indirectly, the economic consequence of ownership, for a period of 180 days following the date of this prospectus, without the prior written consent of Piper Jaffray & Co. and Evercore Group L.L.C. See the section entitled "Underwriting."

Rule 144

In general, under Rule 144 as currently in effect, once we have been subject to public company reporting requirements for at least 90 days, a person who is not deemed to have been one of our affiliates for purposes of the Securities Act at any time during the 90 days preceding a sale and who has beneficially

owned the shares proposed to be sold for at least six months, including the holding period of any prior owner other than our affiliates, is entitled to sell those shares without complying with the manner of sale, volume limitation or notice provisions of Rule 144, subject to compliance with the public information requirements of Rule 144. If such a person has beneficially owned the shares proposed to be sold for at least one year, including the holding period of any prior owner other than our affiliates, then that person would be entitled to sell those shares without complying with any of the requirements of Rule 144.

In general, under Rule 144, as currently in effect, our affiliates or persons selling shares on behalf of our affiliates are entitled to sell upon expiration of the lock-up and market standoff agreements described above, within any three-month period, a number of shares that does not exceed the greater of:

- 1% of the number of shares of our common stock then outstanding, which will equal approximately shares immediately after this offering; or
- the average weekly trading volume of our common stock during the four calendar weeks preceding the filing of a notice on Form 144 with respect to that sale.

Sales under Rule 144 by our affiliates or persons selling shares on behalf of our affiliates are also subject to certain manner of sale provisions and notice requirements and to the availability of current public information about us.

Rule 701

Rule 701 generally allows a stockholder who purchased shares of our common stock pursuant to a written compensatory plan or contract and who is not deemed to have been an affiliate of our company during the immediately preceding 90 days to sell these shares in reliance upon Rule 144, but without being required to comply with the public information, holding period, volume limitation or notice provisions of Rule 144. Rule 701 also permits affiliates of our company to sell their Rule 701 shares under Rule 144 without complying with the holding period requirements of Rule 144. All holders of Rule 701 shares, however, are required by that rule to wait until 90 days after the date of this prospectus before selling those shares pursuant to Rule 701 and are subject to the lock-up and market standoff agreements described above.

Stock Options

In connection with this offering, we intend to file a registration statement on Form S-8 under the Securities Act covering all of the shares of our common stock subject to outstanding options and the shares of our common stock reserved for issuance under our stock plans. We expect to file this registration statement as soon as permitted under the Securities Act. However, the shares registered on Form S-8 may be subject to the volume limitations and the manner of sale, notice and public information requirements of Rule 144 and will not be eligible for resale until expiration of the lock-up and market standoff agreements to which they are subject.

Registration Rights

We have granted demand, piggyback and Form S-3 registration rights to certain of our stockholders to sell our common stock. Registration of the sale of these shares under the Securities Act would result in these shares becoming freely tradable without restriction under the Securities Act immediately upon the effectiveness of the registration, except for shares purchased by affiliates. For a further description of these rights, see “Description of Capital Stock—Registration Rights.”

CERTAIN MATERIAL U.S. FEDERAL INCOME AND ESTATE TAX CONSIDERATIONS FOR NON-U.S. HOLDERS OF COMMON STOCK

The following is a general discussion of material U.S. federal income tax considerations and certain U.S. estate tax considerations relating to the ownership and disposition of our common stock applicable to non-U.S. holders. For purposes of this discussion, a "non-U.S. holder" means a beneficial owner of our common stock (other than an entity or arrangement that is treated as a partnership for U.S. federal income tax purposes) that is not, for U.S. federal income tax purposes, any of the following:

- an individual who is a citizen or resident of the United States;
- a corporation (or other entity treated as a corporation for U.S. federal income tax purposes) created or organized in the United States or under the laws of the United States, any state thereof or the District of Columbia;
- an estate, the income of which is includable in gross income for U.S. federal income tax purposes regardless of its source; or
- a trust if (i) a court within the United States is able to exercise primary supervision over the administration of the trust and one or more "U.S. persons," as defined under the U.S. Internal Revenue Code of 1986, as amended (which we refer to as the Code), have the authority to control all substantial decisions of the trust or (ii) such trust has made a valid election to be treated as a U.S. person for U.S. federal income tax purposes.

This discussion is based on current provisions of the Code, final, temporary and proposed Treasury regulations promulgated thereunder (which we refer to as the Treasury Regulations), judicial decisions, published rulings and administrative pronouncements of the U.S. Internal Revenue Service, or IRS, all in effect as of the date of this prospectus and all of which are subject to change or to differing interpretation, possibly with retroactive effect. Any change could alter the tax consequences to non-U.S. holders described herein. There can be no assurance that the IRS, will not challenge one or more of the tax consequences described herein.

This discussion is limited to non-U.S. holders that hold our common stock as a "capital asset" within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all aspects of U.S. federal income and estate taxation that may be relevant to a particular non-U.S. holder in light of that non-U.S. holder's individual circumstances nor does it address any aspects of U.S. state, local or non-U.S. taxes, the alternative minimum tax, or the unearned income Medicare contribution tax on net investment income. This discussion also does not consider any specific facts or circumstances that may apply to a non-U.S. holder and does not address the special tax rules applicable to particular non-U.S. holders, such as:

- banks, insurance companies and other financial institutions;
- brokers or dealers or traders in securities;
- tax-exempt organizations;
- pension plans;
- persons who hold our common stock as part of a straddle, hedge, conversion transaction, synthetic security or other integrated investment or who have elected to mark securities to market;
- "controlled foreign corporations," "passive foreign investment companies," and corporations that accumulate earnings to avoid U.S. federal income tax;
- persons who hold or receive our common stock pursuant to the exercise of any employee stock option or otherwise as compensation;

- persons for whom our common stock constitutes "qualified small business stock" within the meaning of Section 1202 of the Code;
- persons subject to special tax accounting rules as a result of any item of gross income with respect to our common stock being taken into account in an applicable financial statement;
- non-U.S. governments; and
- U.S. expatriates and former citizens or long-term residents of the United States.

If a partnership (or other entity or arrangement treated as a partnership for U.S. federal income tax purposes) holds our common stock, the tax treatment of a partner therein will generally depend on the status of the partner and the activities of the partnership. Partners of a partnership holding our common stock should consult their tax advisors as to the particular U.S. federal income tax consequences applicable to them.

THIS SUMMARY IS NOT INTENDED TO CONSTITUTE A COMPLETE DESCRIPTION OF ALL TAX CONSEQUENCES FOR NON-U.S. HOLDERS RELATING TO THE OWNERSHIP AND DISPOSITION OF OUR COMMON STOCK. PROSPECTIVE HOLDERS OF OUR COMMON STOCK SHOULD CONSULT WITH THEIR TAX ADVISORS REGARDING THE TAX CONSEQUENCES TO THEM (INCLUDING THE APPLICATION AND EFFECT OF ANY STATE, LOCAL, NON-U.S. INCOME AND OTHER TAX LAWS) OF THE OWNERSHIP AND DISPOSITION OF OUR COMMON STOCK.

Distributions

As discussed under "Dividend Policy" above, we do not expect to make distributions on our common stock in the foreseeable future. However, if we do make distributions of cash or property on our common stock, such distributions will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Amounts of distributions not treated as dividends for U.S. federal income tax purposes will first constitute a tax-free return of capital of the non-U.S. holder's investment and be applied against and reduce a non-U.S. holder's adjusted tax basis in its common stock, but not below zero. Any remaining excess will be treated as capital gain and will be treated as described below under "Gain on Sale or Other Disposition of Common Stock." Any such distributions will also be subject to the discussions below under the headings "FATCA" and "Backup Withholding, Information Reporting and Other Reporting Requirements."

Subject to the discussion in the next paragraph regarding effectively connected income, dividends paid to a non-U.S. holder generally will be subject to withholding of U.S. federal income tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder's country of residence.

Dividends we pay to a non-U.S. holder that are effectively connected with its conduct of a trade or business within the United States (and, if required by an applicable tax treaty, are attributable to a U.S. permanent establishment or a fixed base maintained by such non-U.S. holder) will generally be exempt from the U.S. federal withholding tax, as described above, if the non-U.S. holder complies with applicable certification and disclosure requirements (generally including provision of a valid IRS Form W-8ECI (or applicable successor form) certifying that the dividends are effectively connected with the non-U.S. holder's conduct of a trade or business within the United States). Instead, such dividends generally will be subject to U.S. federal income tax on a net income basis, at regular U.S. federal income tax rates as would apply if such holder were a U.S. person (as defined in the Code). Any U.S. effectively connected income received by a non-U.S. holder that is classified as a corporation for U.S. federal income tax purposes, may also be subject to an additional "branch profits tax" at a rate of 30% (or such lower rate as may be specified by an applicable income tax treaty).

A non-U.S. holder of our common stock who claims the benefit of an applicable income tax treaty between the United States and such holder's country of residence generally will be required to provide a properly executed IRS Form W-8BEN or W-8BEN-E (or successor form) and satisfy applicable certification and other requirements. Non-U.S. holders are urged to consult their tax advisors regarding their entitlement to benefits under a relevant income tax treaty and the specific methods available to them to satisfy these requirements.

Gain on Sale or Other Disposition of Common Stock

Subject to the discussion below under the headings "FATCA" and "Backup Withholding, Information Reporting and Other Reporting Requirements," a non-U.S. holder generally will not be subject to U.S. federal income tax on any gain realized upon the sale or other disposition of the non-U.S. holder's shares of common stock unless:

- the gain is effectively connected with a trade or business carried on by the non-U.S. holder within the United States (and, if required by an applicable income tax treaty, is attributable to a U.S. permanent establishment or fixed base maintained by such non-U.S. holder);
- the non-U.S. holder is an individual and is present in the United States for 183 days or more in the taxable year of disposition and certain other conditions are met; or
- we are or have been a "U.S. real property holding corporation" for U.S. federal income tax purposes at any time within the shorter of the five-year period preceding such disposition or such non-U.S. holder's holding period of our common stock, and, provided that our common stock is regularly traded in an established securities market within the meaning of applicable Treasury Regulations, the non-U.S. holder has held, directly or constructively, at any time during said period, more than 5% of our common stock.

Gain that is effectively connected with the conduct of a trade or business in the United States generally will be subject to U.S. federal income tax on a net income tax basis, at regular U.S. federal income tax rates. If the non-U.S. holder is a non-U.S. corporation, the branch profits tax described above also may apply to such effectively connected gain. An individual non-U.S. holder who is subject to U.S. federal income tax because the non-U.S. holder was present in the United States for 183 days or more during the year of sale or other disposition of our common stock will be subject to a flat 30% tax (or such lower rate as may be specified by an applicable income tax treaty) on the gain derived from such sale or other disposition, which may be offset by certain U.S. source capital losses, if any. We believe that we are not and we do not anticipate becoming a U.S. real property holding corporation for U.S. federal income tax purposes.

FATCA

The Foreign Account Tax Compliance Act, or FATCA, imposes a U.S. federal withholding tax of 30% on certain payments to foreign financial institutions, investment funds and certain other non-U.S. persons that fail to comply with certain information reporting and certification requirements pertaining to their direct and indirect U.S. securityholders and/or U.S. accountholders and are not otherwise exempt. Under applicable Treasury Regulations and IRS guidance, this withholding currently applies to payments of dividends, if any, on our common stock and will apply to payments of gross proceeds from a sale or other disposition of our common stock made on or after January 1, 2019. An intergovernmental agreement between the U.S. and an applicable foreign country may modify the requirements described in this paragraph. Prospective investors are encouraged to consult with their tax advisors regarding the possible implications of this legislation on their investment in our common stock.

Backup Withholding, Information Reporting and Other Reporting Requirements

We must report annually to the IRS and to each non-U.S. holder the amount of any distributions paid to, and the tax withheld with respect to, each non-U.S. holder. These reporting requirements apply

regardless of whether withholding was reduced or eliminated by an applicable income tax treaty. Copies of this information reporting may also be made available under the provisions of a specific income tax treaty or agreement with the tax authorities in the country in which the non-U.S. holder resides or is established.

A non-U.S. holder will generally be subject to backup withholding for dividends on our common stock paid to such holder unless such holder certifies under penalties of perjury that, among other things, it is a non-U.S. holder (provided that the payor does not have actual knowledge or reason to know that such holder is a U.S. person) or otherwise establishes an exemption.

Information reporting and backup withholding generally will apply to the proceeds of a disposition of our common stock by a non-U.S. holder effected by or through the U.S. office of any broker, U.S. or non-U.S., unless the holder certifies its status as a non-U.S. holder and satisfies certain other requirements, or otherwise establishes an exemption. Generally, information reporting and backup withholding will not apply to a payment of disposition proceeds to a non-U.S. holder where the transaction is effected outside the United States through a non-U.S. office of a broker. However, for information reporting purposes, dispositions effected through a non-U.S. office of a broker with substantial U.S. ownership or operations generally will be treated in a manner similar to dispositions effected through a U.S. office of a broker. Non-U.S. holders should consult their tax advisors regarding the application of the information reporting and backup withholding rules to them.

Backup withholding is not an additional income tax. Any amounts withheld under the backup withholding rules from a payment to a non-U.S. holder generally can be credited against the non-U.S. holder's U.S. federal income tax liability, if any, or refunded, provided that the required information is furnished to the IRS in a timely manner. Non-U.S. holders should consult their tax advisors regarding the application of the information reporting and backup withholding rules to them.

U.S. Federal Estate Tax

Shares of our common stock that are owned or treated as owned by an individual who is not a citizen or resident of the United States (as specially defined for U.S. federal estate tax purposes) at the time of death are considered U.S. situs assets and will be included in the individual's gross estate for U.S. federal estate tax purposes. Such shares, therefore, may be subject to U.S. federal estate tax, unless an applicable estate tax or other treaty provides otherwise.

The preceding discussion of material U.S. federal income tax considerations and certain U.S. estate tax considerations is for information only. It is not legal or tax advice. Prospective investors should consult their tax advisors regarding the particular U.S. federal, state, local and non-U.S. tax consequences of owning and disposing of our common stock, including the consequences of any proposed changes in applicable laws.

UNDERWRITING

Piper Jaffray & Co. and Evercore Group L.L.C. are acting as representatives of each of the underwriters named below. Subject to the terms and conditions set forth in an underwriting agreement among us and the underwriters, we have agreed to sell to the underwriters, and each of the underwriters has agreed, severally and not jointly, to purchase from us, the number of shares of our common stock set forth opposite its name below.

Underwriters	Number of Shares
Piper Jaffray & Co.	
Evercore Group L.L.C.	
JMP Securities LLC	
Total	

Subject to the terms and conditions set forth in the underwriting agreement, the underwriters have agreed, severally and not jointly, to purchase all of the shares sold under the underwriting agreement if any of these shares are purchased. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the nondefaulting underwriters may be increased or the underwriting agreement may be terminated.

We have agreed to indemnify the several underwriters against certain liabilities, including liabilities under the Securities Act relating to losses or claims resulting from material misstatements in or omissions from this prospectus, the registration statement of which this prospectus is a part, certain free writing prospectuses that may be used in the offering and in any marketing materials used in connection with this offering and to contribute to payments the underwriters may be required to make in respect of those liabilities.

Discounts and Commissions

The representatives have advised us that the underwriters propose initially to offer the shares to the public at the public offering price set forth on the cover page of this prospectus and to dealers at that price less a concession not in excess of $ per share. After the initial offering, the public offering price, concession or any other term of this offering may be changed. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

The following table shows the public offering price, underwriting discount and proceeds, before expenses, to us. The information assumes either no exercise or full exercise by the underwriters of their option to purchase additional shares.

	Per Share	Without Option	With Option
Public Offering Price	$	$	$
Underwriter Discount	$	$	$
Proceeds, before expenses, to us	$	$	$

The estimated offering expenses payable by us, exclusive of the underwriting discount and commissions, are approximately $ million. We have also agreed to reimburse the underwriters for certain of their expenses in an amount not to exceed $ as set forth in the underwriting agreement.

The underwriting agreement provides that the obligations of the several underwriters to pay for and accept delivery of the shares of common stock offered by this prospectus are subject to the approval of certain legal matters by their counsel and to certain other conditions. The underwriters are obligated to

take and pay for all of the shares of common stock offered by this prospectus if any such shares are taken. However, the underwriters are not required to take or pay for the shares covered by the underwriters' option to purchase additional shares, described below. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the non-defaulting underwriters may be increased.

Option to Purchase Additional Shares

We have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus, to purchase up to additional shares of common stock at the public offering price listed on the cover page of this prospectus, less the underwriting discount and commissions. The underwriters may exercise this option solely for the purpose of covering overallotments, if any, made in connection with the offering of the shares of common stock offered by this prospectus. To the extent the option is exercised, each underwriter will become obligated, subject to certain conditions, to purchase about the same percentage of the additional shares of common stock as the number listed next to the underwriter's name in the table above bears to the total number of shares of common stock listed next to the names of all underwriters in the preceding table.

No Sales of Similar Securities

We, our executive officers and directors and substantially all of our other existing security holders have agreed not to sell or transfer any shares of our common stock or securities convertible into, exchangeable for, exercisable for, or repayable with shares of our common stock, for 180 days after the date of this prospectus without first obtaining the written consent of Piper Jaffray & Co. and Evercore Group L.L.C. Specifically, we and these other persons have agreed, with certain limited exceptions, not to directly or indirectly:

- offer, pledge, announce the intention to sell, sell or contract to sell any shares of our common stock;
- sell any option or contract to purchase any shares of our common stock;
- purchase any option or contract to sell any shares of our common stock;
- grant any option, right or warrant to purchase any shares of our common stock;
- dispose of or otherwise transfer any shares of our common stock;
- demand that we file a registration statement related to our common stock; or
- enter into any swap or other agreement that transfers, in whole or in part, the economic consequence of ownership of any shares of our common stock whether any such swap or transaction is to be settled by delivery of shares or other securities, in cash or otherwise.

This lock-up provision applies to shares of our common stock and to securities convertible into or exchangeable or exercisable for or repayable with shares of our common stock. It also applies to shares of our common stock owned now or acquired later by the person executing the agreement or for which the person executing the agreement later acquires the power of disposition.

Listing

We have applied to list our common stock on The Nasdaq Global Select Market under the symbol "ECOR." In order to meet the requirements for listing on that exchange, the underwriters have undertaken to sell a minimum number of shares to a minimum number of beneficial owners as required by that exchange.

Before this offering, there has been no public market for our common stock. The initial public offering price will be determined through negotiations between us and the representatives. In addition to prevailing market conditions, the factors to be considered in determining the initial public offering price are:

- the valuation multiples of publicly traded companies that the representatives believe to be comparable to us;
- our financial information;
- the history of, and the prospects for, our company and the industry in which we compete;
- an assessment of our management, its past and present operations and the prospects for, and timing of, our future net sales;
- the present state of our development; and
- the above factors in relation to market values and various valuation measures of other companies engaged in activities similar to ours.

An active trading market for the shares may not develop. It is also possible that after this offering the shares will not trade in the public market at or above the initial public offering price.

The underwriters do not expect to sell more than 5% of the shares in the aggregate to accounts over which they exercise discretionary authority.

Price Stabilization, Short Positions and Penalty Bids

Until the distribution of the shares is completed, SEC rules may limit underwriters and selling group members from bidding for and purchasing shares of our common stock. However, the underwriters may engage in transactions that stabilize the price of our common stock, such as bids or purchases to peg, fix or maintain that price.

In connection with this offering, the underwriters may purchase and sell shares of our common stock in the open market. These transactions may include short sales, purchases on the open market to cover positions created by short sales and stabilizing transactions. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in this offering. “Covered” short sales are sales made in an amount not greater than the underwriters’ option to purchase additional shares described above. The underwriters may close out any covered short position by either exercising their option or purchasing shares in the open market. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the overallotment option. “Naked” short sales are sales in excess of the overallotment option. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of our common stock in the open market after pricing that could adversely affect investors who purchase in this offering. Stabilizing transactions consist of various bids for or purchases of shares of our common stock made by the underwriters in the open market prior to the completion of this offering.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representatives have repurchased shares sold by or for the account of such underwriter in stabilizing or short covering transactions.

Similar to other purchase transactions, the underwriters’ purchases to cover the syndicate short sales may have the effect of raising or maintaining the market price of our common stock or preventing or

retarding a decline in the market price of our common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. The underwriters may conduct these transactions on Nasdaq, in the over-the-counter market or otherwise.

Neither we nor any of the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our common stock. In addition, neither we nor any of the underwriters make any representation that the representatives will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

Electronic Offer, Sale and Distribution of Shares

In connection with this offering, certain of the underwriters or securities dealers may distribute prospectuses by electronic means, such as e-mail. In addition, one or more of the underwriters may facilitate internet distribution for this offering to certain of their internet subscription customers. Any such underwriter may allocate a limited number of shares for sale to its online brokerage customers. An electronic prospectus is available on the internet websites maintained by any such underwriter. Other than the prospectus in electronic format, the information on the websites of any such underwriter is not part of this prospectus.

Other Relationships

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. Certain of the underwriters and their affiliates have engaged in, and may in the future engage in, investment banking and other commercial dealings in the ordinary course of business with us or our affiliates. They have received, or may in the future receive, customary fees and commissions for these transactions.

In the ordinary course of their various business activities, the underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers, and such investment and securities activities may involve securities and/or instruments of the issuer. The underwriters and their respective affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

Selling Restrictions

European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a "Relevant Member State") an offer to the public of any shares of our common stock may not be made in that Relevant Member State, except that an offer to the public in that Relevant Member State of any shares of our common stock may be made at any time under the following exemptions under the Prospectus Directive, if they have been implemented in that Relevant Member State:

(a) to any legal entity which is a qualified investor as defined in the Prospectus Directive;

(b) to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the representatives for any such offer; or

(c) in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of shares of our common stock shall result in a requirement for the publication by us or any underwriter of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer to the public" in relation to any shares of our common stock in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares of our common stock to be offered so as to enable an investor to decide to purchase any shares of our common stock, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State, the expression "Prospectus Directive" means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State), and includes any relevant implementing measure in the Relevant Member State, and the expression "2010 PD Amending Directive" means Directive 2010/73/EU.

United Kingdom

Each underwriter has represented and agreed that:

(a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000 (the "FSMA")) received by it in connection with the issue or sale of the shares of our common stock in circumstances in which Section 21(1) of the FSMA does not apply to us; and

(b) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares of our common stock in, from or otherwise involving the United Kingdom.

Canada

The common stock may be sold only to purchasers purchasing as principal that are both "accredited investors" as defined in National Instrument 45-106 Prospectus and Registration Exemptions and "permitted clients" as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the common shares must be made in accordance with an exemption from the prospectus requirements and in compliance with the registration requirements of applicable securities laws.

Hong Kong

The common stock may not be offered or sold in Hong Kong by means of any document other than (i) in circumstances which do not constitute an offer to the public within the meaning of the Companies Ordinance (Cap. 32, Laws of Hong Kong), or (ii) to "professional investors" within the meaning of the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) and any rules made thereunder, or (iii) in other circumstances which do not result in the document being a "prospectus" within the meaning of the Companies Ordinance (Cap. 32, Laws of Hong Kong) and no advertisement, invitation or document relating to the shares may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the laws of Hong Kong) other than with respect to common shares which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" within the meaning of the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) and any rules made thereunder.

Singapore

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore.

Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the common stock may not be circulated or distributed, nor may the common shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore (the "SFA"), (ii) to a relevant person pursuant to Section 275(1), or any person pursuant to Section 275(1A), and in accordance with the conditions specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA, in each case subject to compliance with conditions set forth in the SFA.

Where the common stock are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

(a) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or

(b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor, shares, debentures and units of shares and debentures of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the common shares pursuant to an offer made under Section 275 of the SFA except:

(i) to an institutional investor (for corporations, under Section 274 of the SFA) or to a relevant person defined in Section 275(2) of the SFA, or to any person pursuant to an offer that is made on terms that such shares, debentures and units of shares and debentures of that corporation or such rights and interest in that trust are acquired at a consideration of not less than S$200,000 (or its equivalent in a foreign currency) for each transaction, whether such amount is to be paid for in cash or by exchange of securities or other assets, and further for corporations, in accordance with the conditions specified in Section 275 of the SFA;

(ii) where no consideration is or will be given for the transfer; or

(iii) where the transfer is by operation of law.

Switzerland

The common stock may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange (the "SIX") or on any other stock exchange or regulated trading facility in Switzerland. This document has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this document nor any other offering or marketing material relating to the common shares or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering or marketing material relating to the offering, or the common stock have been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of common stock will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA, and the offer of common shares has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes ("CISA"). Accordingly, no public distribution, offering or advertising, as defined in CISA, its implementing ordinances and notices, and no distribution to any non-qualified investor, as defined in CISA, its implementing ordinances and notices, shall be undertaken in or from Switzerland, and the investor

protection afforded to acquirers of interests in collective investment schemes under CISA does not extend to acquirers of common stock.

United Arab Emirates

This offering has not been approved or licensed by the Central Bank of the United Arab Emirates (the "UAE"), Securities and Commodities Authority of the UAE and/or any other relevant licensing authority in the UAE including any licensing authority incorporated under the laws and regulations of any of the free zones established and operating in the territory of the UAE, in particular the Dubai Financial Services Authority ("DFSA"), a regulatory authority of the Dubai International Financial Centre ("DIFC"). The offering does not constitute a public offer of securities in the UAE, DIFC and/or any other free zone in accordance with the Commercial Companies Law, Federal Law No 8 of 1984 (as amended), DFSA Offered Securities Rules and Nasdaq Dubai Listing Rules, accordingly, or otherwise. The common shares may not be offered to the public in the UAE and/or any of the free zones.

The common shares may be offered and issued only to a limited number of investors in the UAE or any of its free zones who qualify as sophisticated investors under the relevant laws and regulations of the UAE or the free zone concerned.

France

This prospectus (including any amendment, supplement or replacement thereto) is not being distributed in the context of a public offering in France within the meaning of Article L. 411-1 of the French Monetary and Financial Code (Code monétaire et financier).

This prospectus has not been and will not be submitted to the French Autorité des marchés financiers (the "AMF") for approval in France and accordingly may not and will not be distributed to the public in France.

Pursuant to Article 211-3 of the AMF General Regulation, French residents are hereby informed that:

1. the transaction does not require a prospectus to be submitted for approval to the AMF;
2. persons or entities referred to in Point 2°, Section II of Article L. 411-2 of the Monetary and Financial Code may take part in the transaction solely for their own account, as provided in Articles D. 411-1, D. 734-1, D. 744-1, D. 754-1 and D. 764-1 of the Monetary and Financial Code; and
3. the financial instruments thus acquired cannot be distributed directly or indirectly to the public otherwise than in accordance with Articles L. 411-1, L. 411-2, L. 412-1 and L. 621-8 to L. 621-8-3 of the Monetary and Financial Code.

This prospectus is not to be further distributed or reproduced (in whole or in part) in France by the recipients of this prospectus. This prospectus has been distributed on the understanding that such recipients will only participate in the issue or sale of our common stock for their own account and undertake not to transfer, directly or indirectly, our common stock to the public in France, other than in compliance with all applicable laws and regulations and in particular with Articles L. 411-1 and L. 411-2 of the French Monetary and Financial Code.

LEGAL MATTERS

The validity of the shares of common stock offered by this prospectus will be passed upon for us by our counsel, Dentons US LLP. Certain legal matters will be passed upon for the underwriters by Latham & Watkins LLP. Members of Dentons US LLP own interests that will represent more than $50,000 of our common stock.

EXPERTS

The consolidated financial statements of Electrocore, LLC, subsidiaries and affiliate as of December 31, 2017 and 2016, and for each of the years in the two-year period ended December 31, 2017, have been included herein and in the registration statement in reliance upon the report of KPMG LLP, independent registered public accounting firm, appearing elsewhere herein, and upon the authority of said firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the shares of common stock offered hereby. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement or the exhibits filed therewith. For further information about us and the common stock offered hereby, reference is made to the registration statement and the exhibits filed therewith. Statements contained in this prospectus regarding the contents of any contract or any other document that is filed as an exhibit to the registration statement are not necessarily complete, and in each instance we refer you to the copy of such contract or other document filed as an exhibit to the registration statement. A copy of the registration statement and the exhibits filed therewith may be inspected without charge at the public reference room maintained by the SEC, located at 100 F Street, NE, Washington, DC 20549, and copies of all or any part of the registration statement may be obtained from that office. Please call the SEC at 1-800-SEC-0330 for further information about the public reference room. The SEC also maintains a website that contains reports, proxy and information statements and other information regarding registrants that file electronically with the SEC. The address of the website is www.sec.gov.

We currently do not file periodic reports with the SEC. Upon the closing of our initial public offering, we will be required to file periodic reports, proxy statements and other information with the SEC pursuant to the Exchange Act. These periodic reports, proxy statements and other information will be available for inspection and copying at the SEC’s public reference facilities and the website of the SEC referred to above.

We also maintain a website at www.electrocore.com. Upon completion of this offering, you may access these materials at our website free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. Information contained on our website is not a part of this prospectus and the inclusion of our website address in this prospectus is an inactive textual reference only.

ELECTROCORE, LLC, SUBSIDIARIES AND AFFILIATE

Index to Consolidated Financial Statements

Audited Consolidated Financial Statements:

Unaudited Consolidated Financial Statements:

Report of Independent Registered Public Accounting Firm

To the Members and Board of Directors
Electrocore, LLC, Subsidiaries and Affiliate:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Electrocore, LLC, Subsidiaries and Affiliate (the Company) as of December 31, 2017 and 2016, the related consolidated statements of operations, comprehensive loss, changes in convertible preferred units and members' equity (deficit), and cash flows for each of the years in the two-year period ended December 31, 2017, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2016, and the results of its operations and its cash flows for each of the years in the two-year period ended December 31, 2017, in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB and in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ KPMG LLP

We have served as the Company's auditor since 2015.

Short Hills, New Jersey
March 30, 2018

ELECTROCORE, LLC, SUBSIDIARIES AND AFFILIATE

Consolidated Balance Sheets

(In U.S. dollars, except for unit data)

	December 31, 2017	December 31, 2016
Assets		
Current assets:		
Cash and cash equivalents	$ 13,224,194	$ 416,336
Marketable securities	23,950,566	—
Accounts receivable, net	103,209	24,710
Inventories	327,787	48,471
Prepaid expenses and other current assets	570,755	16,422
Deferred financing costs	856,895	—
Total current assets	39,033,406	505,939
Property and equipment – net	168,646	48,426
Security deposits	30,604	67,651
Total assets	$ 39,232,656	$ 622,016
Liabilities, Convertible Preferred Units and Members' Equity (Deficit)		
Current liabilities:		
Accounts payable and accrued expenses	$ 3,879,775	$ 3,296,539
Warrant liability	2,239,544	480,636
Derivative instrument related to convertible bridge notes	—	358,146
Total current liabilities	6,119,319	4,135,321
Noncurrent liabilities:		
Convertible bridge notes, net of unamortized debt discount and issuance costs of $1,955,137 at December 31, 2016	—	3,665,993
Deferred rent	306,886	355,724
Total liabilities	6,426,205	13,495,180
Commitments and contingencies (Note 15)		
Convertible Preferred Units:		
Series A Preferred Units, 71,050,860 Units authorized at December 31, 2017 and 2016, 70,918,506 Units issued and outstanding at December 31, 2017 and 2016	53,518,463	53,518,463
Series B Preferred Units, 123,000,000 Units authorized at December 31, 2017 and 0 units authorized at December 31, 2016; 105,186,020 Units issued and outstanding at December 31, 2017	68,755,544	—
Series B-1 Preferred Units, 23,529,412 Units authorized at December 31, 2017 and 0 Units authorized at December 31, 2016; 0 Units issued and outstanding at December 31, 2017 and 2016	—	—
Total convertible preferred units	122,274,007	53,518,463
Members' equity (deficit):		
Common Units, 600,000,000 Units authorized at December 31, 2017 and 150,000,000 units authorized at December 31, 2016; 218,982,140 Units issued and outstanding at December 31, 2017; 90,711,018 Units issued and outstanding at December 31, 2016	40,180,619	30,912,091
Additional paid-in capital	22,596,485	8,126,416
Accumulated deficit	(152,928,928)	(100,706,419)
Accumulated other comprehensive income	80,213	214,006
Total equity (deficit) attributable to Electrocore, LLC, subsidiaries and affiliate	(90,071,611)	(61,453,906)
Noncontrolling interest	604,055	400,421
Total members' equity (deficit)	(89,467,556)	(61,053,485)
Total liabilities, convertible preferred units and members' equity (deficit)	$ 39,232,656	$ 622,016

See accompanying notes to consolidated financial statements.

ELECTROCORE, LLC, SUBSIDIARIES AND AFFILIATE

Consolidated Statements of Operations

(In U.S. dollars, except for unit data)

	Years ended December 31,	
	2017	2016
Net sales	$ 811,457	$ 254,138
Cost of goods sold	518,532	123,731
Gross profit	292,925	130,407
Operating expenses:		
Research and development	7,830,868	7,971,342
Selling, general and administrative	18,106,647	7,169,305
Total operating expenses	25,937,515	15,140,647
Loss from operations	(25,644,590)	(15,010,240)
Other expense (income)		
Interest expense	6,295,854	234,352
Net loss on settlement of convertible bridge notes	3,868,771	—
Amortization of debt issuance costs	827,317	536,893
Interest and other income, net	(99,027)	—
Change in fair value of warrant liability	(861,773)	—
Change in fair value of derivative instrument related to convertible bridge notes	348,163	—
Other	4,885	—
Net loss	(36,028,780)	(15,781,485)
Less: Net loss attributable to noncontrolling interest	(236,358)	(44,146)
Net loss attributable to Electrocore, LLC, subsidiaries and affiliate	$ (35,792,422)	$ (15,737,339)
Pro forma net loss per Unit – Basic and Diluted (unaudited) (Note 9)	$ (0.12)	$ (0.10)
Pro forma weighted average number of Common Units used to calculate net loss per Unit – Basic and Diluted (unaudited) (Note 9)	308,297,737	150,566,206

See accompanying notes to consolidated financial statements.

ELECTROCORE, LLC, SUBSIDIARIES AND AFFILIATE

Consolidated Statements of Comprehensive Loss

(In U.S. dollars)

	Years ended December 31,	
	2017	2016
Net loss	$ (36,028,780)	$ (15,781,485)
Other comprehensive income:		
Foreign currency translation adjustment	(113,492)	8,742
Unrealized loss on securities available for sale	(20,301)	—
Other comprehensive (loss) income:	(133,793)	8,742
Comprehensive loss	(36,162,573)	(15,772,743)
Less: Net comprehensive loss attributable to noncontrolling interest	(222,405)	(59,067)
Net comprehensive loss attributable to Electrocore, LLC, subsidiaries and affiliates	$ (35,940,168)	$ (15,713,676)

See accompanying notes to consolidated financial statements.

ELECTROCORE, LLC, SUBSIDIARIES AND AFFILIATE

Consolidated Statements of Changes in Convertible Preferred Units and Members' Equity (Deficit)

(In U.S. dollars, except for unit data)

	Convertible Preferred Units				Electrocore, LLC Stockholders								
	Series A Preferred Units		Series B Preferred Units		Common Units		Additional paid-in capital	Treasury units	Accumulated deficit	Accumulated other comprehensive income	Equity (deficit) attributable to Electrocore, LLC, subsidiaries and affiliates	Noncontrolling interest	Total members' equity (deficit)
	Units	Amount	Units	Amount	Units	Amount							
Balances as of January 1, 2016	63,327,023	$47,325,765	—	$ —	80,029,864	$30,912,091	$ 6,764,497	$(82,658)	$ (84,969,080)	$ 190,343	$(47,184,807)	$ 399,518	$ (49,920,474)
Net loss						—	—	—	(15,737,339)	—	(15,737,339)	(44,146)	(15,781,485)
Other comprehensive income	—	—	—	—	—	—	—	—	—	23,663	23,663	(14,921)	8,742
Issuance of Series A Preferred Units, net	4,266,741	3,366,667	—	—		—	—	—	—	—	—	—	—
Conversion of term loan, including accrued interest to Series A Preferred Units, net	1,529,335	1,299,935	—	—	—	—	—	—	—	—	—	—	—
Conversion of convertible bridge notes, including accrued interest to Series A Preferred Units	1,795,407	1,526,096	—	—		—	—	—	—	—	—	—	—
Noncontrolling interest contributions	—	—	—	—	—	—	—	—	—	—	—	59,970	59,970
Unit-based compensation		—		—		—	142,583	—	—	—	142,583	—	142,583
Cancellation of Treasury Units	—	—	—	—	—	—	(82,658)	82,658	—	—	—	—	—
Common Units issued in connection with convertible bridge notes, net	—	—	—	—	10,681,154	—	1,301,994	—	—	—	1,301,994	—	1,301,994
Balances as of December 31, 2016	70,918,506	$53,518,463	—	$ —	90,711,018	$30,912,091	$ 8,126,416	$ —	$(100,706,419)	$ 214,006	$(61,453,906)	$ 400,421	$ (61,053,485)
Net loss						—	—	—	(35,792,423)	—	(35,792,423)	(236,358)	(36,028,781)
Other comprehensive loss	—	—	—	—	—	—	—	—	—	(133,793)	(133,793)	—	(133,793)
Issuance of Series B Preferred Units, net	—	—	105,186,020	68,755,544	18,340,000	4,074,447	(2,012,611)	—	—	—	2,061,836	—	2,061,836
Noncontrolling interest contributions	—	—	—	—	—	—	—	—	—	—	—	439,992	439,992
Unit-based compensation	—	—	—	—	—	—	462,329	—	—	—	462,329	—	462,329
Common Units issued in connection with convertible bridge notes, net	—	—	—	—	36,565,948	5,194,081	(409,735)	—	—	—	4,784,346	—	4,784,346
Common Units issued in exchange for elimination of preference	—	—	—	—	73,365,174	—	16,430,086	—	(16,430,086)	—	—	—	—
Balances as of December 31, 2017	70,918,506	$53,518,463	105,186,020	$68,755,544	218,982,140	$40,180,619	$22,596,485	$ —	$(152,928,928)	$ 80,213	$(90,071,611)	$ 604,055	$ (89,467,556)

See accompanying notes to consolidated financial statements.

ELECTROCORE, LLC, SUBSIDIARIES AND AFFILIATE

Consolidated Statements of Cash Flows

(In U.S. dollars)

	Years ended December 31,	
	2017	2016
Cash flows from operating activities:		
Net loss	$ (36,028,780)	$ (15,781,485)
Adjustments to reconcile net loss to net cash used in operating activities:		
Amortization of debt discount and issuance costs	6,079,690	536,893
Change in fair value on warrants and embedded derivative	(513,610)	—
Non-cash interest expense on convertible bridge notes	1,045,000	—
Unit-based compensation	462,329	142,583
Depreciation	32,306	53,425
Net loss on settlement of convertible bridge note	3,868,771	—
Loss on disposal of property and equipment	—	2,474
Other	436,641	—
Changes in operating assets and liabilities:		
Accounts receivable, net	(78,499)	75,113
Inventories	(279,316)	1,006
Prepaid expenses and other assets	(517,286)	67,331
Accounts payable and accrued expenses	212,335	1,673,414
Deferred rent	(48,839)	3,481
Net cash used in operating activities	(25,329,258)	(13,225,765)
Cash flows from investing activities:		
Purchase of marketable securities	(32,427,517)	—
Proceeds from maturities of marketable securities	8,460,000	—
Purchases of property and equipment	(152,526)	—
Net cash used in investing activities	(24,120,043)	—
Cash flows from financing activities:		
Proceeds from issuance of Series B Preferred Units	46,911,300	—
Proceeds from issuance of convertible bridge notes	19,965,091	7,121,130
Financing costs related to issuance of convertible bridge notes	(1,170,949)	—
Deferred financing costs	(397,994)	—
Financing costs related to issuance of Series B Preferred Units	(2,819,046)	—
Proceeds from issuance of Series A Preferred Units	—	3,366,667
Repayment of term loan	—	(1,250,000)
Other proceeds, net	—	35,515
Net cash provided by financing activities	62,488,402	9,273,312
Effect of changes in exchange rates on cash and cash equivalents	(231,243)	43,301
Net increase (decrease) in cash and cash equivalents	12,807,858	(3,909,152)
Cash and cash equivalents – beginning of year	416,336	4,325,488
Cash and cash equivalents – end of year	$ 13,224,194	$ 416,336
Supplemental schedule of noncash financing activity:		
Conversion of term loan, including accrued interest, to Series A Preferred Units, net	$ —	$ 1,299,935
Conversion of convertible bridge notes, including accrued interest, to Series A Preferred Units	—	1,526,096
Common Units issued in exchange for elimination of liquidation preference	16,430,086	—
Common Units issued in connection with convertible bridge notes	5,194,081	1,301,994
Series B warrants issued in connection with convertible bridge notes	2,620,681	480,636
Conversion of convertible bridge notes including accrued interest to Series B Preferred Units	26,718,910	—
Common units issued in connection with Series B financing	4,074,447	—
Common warrants issued in connection with Series B financing	362,081	—
Debt issuance costs included in accounts payable	—	250,215
Deferred financing costs accrued	458,901	—
Cash paid during the year for:		
Interest	$ 373	$ 43,209

See accompanying notes to consolidated financial statements.

ELECTROCORE, LLC, SUBSIDIARIES AND AFFILIATE

Notes to Consolidated Financial Statements

December 31, 2017 and 2016

(1) Business and Organization

Electrocore, LLC (electroCore) is a bioelectronic medicine company, engaged in developing a range of patient-administered non-invasive Vagus Nerve Stimulation (nVNS) therapies initially focused on the treatment of multiple conditions in neurology, rheumatology and other fields. electroCore was founded in 2005 and its focus currently is on primary headache (migraine and cluster headache), with trials continuing in other neurological and inflammatory disorders.

electroCore, headquartered in New Jersey, has wholly owned subsidiaries as follows: electroCore Bermuda, Ltd., electroCore Germany GmbH, and electroCore UK Ltd. In addition, an affiliate, electroCore (Aust) Pty Limited, is subject to electroCore's control on bases other than voting interests and is a variable interest entity (VIE), for which electroCore is the primary beneficiary.

electroCore, its wholly owned subsidiaries and electroCore (Aust) Pty Limited are collectively referred to as the Company.

In Europe, the Company has received CE Marks for its noninvasive neuro-stimulation therapy (gammaCore®) to treat primary headache, bronchoconstriction, epilepsy, gastric motility disorders, and depression and anxiety.

In April 2017, U.S. Food and Drug Administration (FDA) released the use of gammaCore®, a non-invasive vagus nerve stimulator therapy, for the acute treatment of pain associated with episodic cluster headache in adult patients. gammaCore® transmits a mild electrical stimulation to the vagus nerve through the skin, resulting in a reduction of pain, besides other benefits. This was the first FDA product release for the Company in the U.S.

In January 2018, the FDA released the use of gammaCore® for the treatment of pain associated with migraine headache in adult patients.

(2) Summary of Significant Accounting Policies

(a) Principles of Consolidation

The accompanying consolidated financial statements include the accounts of electroCore and its wholly owned subsidiaries. electroCore (Aust) Pty Limited, a VIE for which electroCore is the primary beneficiary, is also consolidated with the non-controlled equity presented as non-controlling interest. All intercompany balances and transactions have been eliminated in consolidation.

(b) Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Significant items subject to such estimates and assumptions include the useful lives of fixed assets; allowances for doubtful accounts and sales returns; valuation of inventory, property and equipment, warrants and derivative instruments, Unit-based compensation, and contingencies.

(c) Cash and Cash Equivalents

The Company considers all highly liquid investments with a maturity of three months or less when purchased to be cash equivalents and all investments with maturities of greater than three months from date of purchase are classified as marketable securities available-for-sale. The Company maintains its U.S. operating cash balances in financial institutions which are insured by the Federal Deposit Insurance Corporation (FDIC) up to $250,000 each. At times, such balances may be in excess of the FDIC insurance limit.

(d) Marketable Securities

Marketable securities, all of which are available-for-sale, consist of corporate debt securities, U.S. bonds, U.S. sponsored agencies and municipal bonds. Marketable securities are carried at fair value, with unrealized gains and losses reported as accumulated other comprehensive income, except for losses from impairments which are determined to be other-than-temporary. Realized gains and losses, and declines in value judged to be other-than-temporary on available-for-sale securities are included in the determination of net loss and are included in interest and other income net, at which time the average costs basis of these securities are adjusted to fair values. Fair values are based on quoted market prices at the reporting date. Interest and dividends on available-for-sale securities are included other income net.

(e) Concentration of Credit Risk

Cash, cash equivalents and marketable securities are financial instruments that potentially subject the Company to concentration of credit risk. The Company periodically invests its cash in corporate debt securities, U.S. bonds, U.S. sponsored agencies and municipal bonds with strong credit ratings. The Company has established guidelines relative to diversification and maturities that are designed to help ensure safety and liquidity. These guidelines are periodically reviewed to take advantage of trends in yields and interest rates.

(f) Accounts Receivable

Accounts receivable are recorded at the invoiced amount and do not bear interest. The Company maintains an allowance for doubtful accounts for estimated losses inherent in its accounts receivable portfolio. Management considers an account receivable to be past due when it is not settled under its stated terms. In establishing the required allowance, management considers historical losses adjusted to take into account current market conditions and customers' financial condition, the amount of receivables in dispute, and the current receivables aging and current payment patterns. Account balances are charged off against the allowance after all means of collection have been exhausted and the potential for recovery is considered remote. The Company does not have any off balance sheet credit exposure related to its customers.

The Company controls its exposure to credit risk through credit analysis and approvals, credit limits, and monitoring procedures. Collateral is generally not required for the Company's accounts receivables. Management believes the credit risk is limited.

(g) Inventories

Inventory, which consists of the raw materials, work-in-process and finished product of GammaCore, is stated at the lower of cost and net realizable value. Inventory is valued on a first in first out basis. Net realizable value is the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation.

In addition, the Company's product is subject to strict quality control and monitoring which the Company performs throughout the manufacturing process. If certain units of product no longer meet quality specification or become obsolete, the Company records a charge to cost of sales sold to write down such unmarketable inventory to zero.

(h) Property and Equipment

Property and equipment are stated at cost. Depreciation and amortization is computed by the straight line method based on the estimated useful lives of the respective assets, as discussed below. Leasehold improvements are amortized over the lesser of the lease terms or the estimated useful lives of the assets. Amounts expended for maintenance and repairs are charged to expense as incurred, and expenditures for major renewals and improvements are capitalized. Upon disposition of property and equipment, the related cost and accumulated depreciation and amortization are removed from the accounts, and any gain or loss is reflected in the accompanying Consolidated Statements of Operations.

Depreciation is computed using the following estimated useful lives:

Machinery and equipment	3–15 years
Furniture and fixtures	5–10 years
Computer equipment	5 years

(i) Impairment of Long-Lived Assets

Long lived assets, such as property, plant, and equipment, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If circumstances require a long lived asset or asset group be tested for possible impairment, the Company first compares undiscounted cash flows expected to be generated by that asset or asset group to its carrying amount. If the carrying amount of the long lived asset or asset group is not recoverable on an undiscounted cash flow basis, an impairment is recognized to the extent that the carrying amount exceeds its fair value. Fair value is determined through various valuation techniques including discounted cash flow models, quoted market values and third party independent appraisals, as considered necessary.

(j) Convertible Preferred Units

The Company has classified convertible preferred units (Series A Preferred Units and Series B Preferred Units) as temporary equity in the accompanying consolidated balance sheets due to certain change in control events that could trigger the payment of the Series A Preferred and Series B Preferred liquidation preferences being outside of the Company's control, including sale or transfer of control of the Company, as certain holders of the preferred units could cause the liquidation of the Units in these situations. The Company does not accrete the carrying values of the preferred units to the redemption values since a change in control event was not considered probable as of December 31, 2017 and 2016.

Subsequent adjustments of the carrying values to the ultimate redemption values will be made only when it becomes probable that such a change in control event will occur.

(k) Members' Equity (Deficit)

The Company's Units have no par value. Each member's liability is limited to the respective members' equity. Additional paid-in capital represents recognition of Unit-based compensation, warrants classified

as equity instruments, and the fair value of Common Units issued in connection with certain convertible promissory notes (the "Bridge Notes"). The Company records cost of repurchasing member Units as Treasury Units.

(l) Revenue Recognition

The Company recognizes revenue when the following criteria are met: persuasive evidence of an arrangement exists, the customer assumes ownership and risk of loss, the sales price is fixed or determinable, and collection is reasonably assured.

Revenue, net of specialty pharmaceutical distribution discounts, is generated from sales of our gammaCore products. The gammaCore products are currently sold through a specialty pharmaceutical distributor on a fixed per-unit wholesale acquisition cost basis. The arrangement is in the form of a written agreement between the parties. Furthermore, the terms of sales to the distributor are FOB destination, under which the title and risk of loss is assumed by the buyer at the time of receipt. Accordingly, the Company recognizes revenues when the products are received by the distributor.

The Company's policy is not to provide for returns for product sales. No allowance for returns has been provided for sales to our specialty pharmaceutical distributor. Instead, damaged or defective products are replaced at no charge under the Company's standard warranty. For the years ended December 31, 2017 and 2016, the replacement costs were immaterial.

Amounts collected on behalf of third parties, such as value added taxes, are not included in the transaction price, and not included in net revenue, as they are collected from the customer on behalf of the respective taxing authority.

Shipping and handling costs are reported as selling, general and administrative expenses.

(m) Research and Development

Research and development costs are expensed as incurred. Costs incurred for clinical trials for patients and investigators are expensed as services are performed in accordance with the agreements in place with the institutions.

(n) Unit-based Compensation

The Company measures Unit-based compensation at grant-date fair value and recognizes employee compensation expense on a straight-line basis over the vesting period of the award.

Measurement of Unit-based payment transactions with non-employees is based on the fair value of whichever is more reliably measurable: (a) the goods or services received; or (b) the equity instruments issued. The fair value of the Unit-based payment transaction is determined at the earlier of performance commitment date or performance completion date.

Determining the appropriate fair value of Unit-based awards requires the input of subjective assumptions, including the fair value of the Company's Units, the expected life of the Units, and expected volatility. The Company uses the Black-Scholes option pricing model to value its Unit-based awards. The assumptions used in calculating the fair value of Unit-based awards represent management's best

estimates and involve inherent uncertainties and the application of management's judgment. As a result, if factors change and management uses different assumptions, Unit-based compensation expense could be materially different for future awards.

The expected life of the Units was estimated using the "simplified method," as the Company has no historical information regarding the expected life of the Units and employment duration for its Unit grants. The simplified method is based on the average of the vesting tranches and the contractual life of each grant. For volatility, the Company uses comparable public companies as a basis for its expected volatility to calculate the fair value of Unit grants. The risk-free interest rate is based on U.S. Treasury notes with a term approximating the expected life of the Unit.

The Company accounts for forfeitures of Unit-based awards as they occur.

(o) Warrants and Other Derivative Instruments

In connection with the issuance of certain debt and equity instruments, the Company has issued warrants to purchase equity interests. In certain circumstances, these warrants are liability classified, rather than as equity. Additionally, the debt and equity instruments may contain embedded derivative instruments, such as variable conversion options, which are required to be evaluated under the provisions of Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) Topic 815, *Derivatives and Hedging* (ASC Topic 815), bifurcated from the host instrument and accounted for separately as a derivative instrument liability.

In 2017 and 2016, related to the issuance of the Bridge Notes, the Company issued warrants to purchase its Series B Preferred Units (see Note 12) and recorded them as liabilities due to the fact that whether the underlying Series B Preferred Units would be redeemable was not known at the time of their issuance. In addition, the Company also recognized an embedded derivative related to the conversion option of the Bridge Notes. The warrants were valued using the probability weighted expected return method and option pricing models. The embedded derivative instrument was recorded at fair value using an alternative discounted cash flow method. Key assumptions used in the valuation model were based on the terms and conditions of the warrants and the embedded derivative. At the time of the conversion of the Bridge Notes into the Series B Preferred Units, the warrants remained classified as a liability. These warrants and derivative instruments are remeasured at each balance sheet date with changes in fair value recorded in the Consolidated Statements of Operations.

(p) Foreign Currency Translation and Transactions

Operations in non-U.S. entities are recorded in the functional currency of each entity. For financial reporting purposes, the functional currency of an entity is determined by a review of the source of an entity's most predominant cash flows. The results of operations for non-U.S. dollar functional currency entities are translated from functional currencies into U.S. dollars using the average currency rate during each month, which approximates the results that would be obtained using actual currency rates on the dates of individual transactions. Assets and liabilities are translated using currency rates at the end of the period. Adjustments resulting from translating the financial statements of the foreign entities into the U.S. dollar are excluded from the determination of net loss and are recorded as a component of other comprehensive loss. Foreign currency transaction gains and losses related to assets and liabilities that are denominated in a currency other than the functional currency are reported in the Consolidated Statements of Operations in the period they occur.

(q) Income Taxes

The Company is a limited liability company, which is treated as a partnership for Federal and state income tax purposes. Accordingly, the Company is not subject to income taxes. No provision has been made for Federal and state income taxes since these taxes are the personal responsibility of the Members.

The Company assesses its risk for unrecognized tax liabilities for known or anticipated tax issues based on its analysis of whether, and the extent to which, additional taxes will be due. As of December 31, 2017 and 2016, the Company determined that it is more likely than not that a liability for tax risks are not required.

(r) Net Comprehensive Loss

Net comprehensive loss consists of net loss, foreign exchange translation adjustments and unrealized gains (losses) on securities available for sale and is presented in the Consolidated Statements of Comprehensive Loss.

(s) Fair Value of Financial Instruments

Certain assets and liabilities are reported on a recurring basis at fair value. Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. Financial assets and liabilities carried at fair value are to be classified and disclosed in one of the following three levels of the fair value hierarchy, of which the first two are considered observable and the last is considered unobservable:

- Level 1—Quoted prices in active markets for identical assets or liabilities.
- Level 2—Observable inputs (other than Level 1 quoted prices), such as quoted prices in active markets for similar assets or liabilities, quoted prices in markets that are not active for identical or similar assets or liabilities, or other inputs that are observable or can be corroborated by observable market data.
- Level 3—Unobservable inputs that are supported by little or no market activity and that are significant to determining the fair value of the assets or liabilities, including pricing models, discounted cash flow methodologies and similar techniques.

(t) Segment Information

The Company operates in one reportable segment within the United States, Europe and Australia. Management uses one measurement of profitability and does not segregate its business for internal reporting, making operating decisions, and assessing financial performance. Net sales within the United States and outside the United States were approximately $241,500 and $570,000, respectively, for the year ended December 31, 2017. Sales to a U.S., UK and German customer accounted for 30%, 34% and 33% of total sales, respectively, for the year ended December 31, 2017. Net sales within the United States and outside the United States were approximately $10,000 and $244,000, respectively, for the year ended December 31, 2016. Sales to a UK and German customer accounted for 57% and 19% of total sales, respectively, for the year ended December 31, 2016. All long-lived assets are maintained in the United States.

(u) *Deferred Financing Costs*

Deferred financing costs, primarily costs of direct incremental legal, accounting and other fees relating to the Company's contemplated initial public offering ("IPO"), are capitalized as incurred. The deferred transaction costs will be offset against IPO proceeds upon the consummation of the offering. In the event the IPO is terminated which would include a postponement of 90 days or greater, any deferred transaction costs will be expensed. The Company has capitalized costs totaling $856,895 that have been incurred in connection with ongoing equity raising initiatives.

(v) Immaterial Correction

We have made a correcting adjustment to our Consolidated Balance Sheet as of December 31, 2016 due to an immaterial prior period error regarding the classification of Series A Preferred Units in such Consolidated Balance Sheet. This correcting adjustment has appropriately classified Series A Preferred Units outside of Members' equity (deficit) and presented such amounts within mezzanine/temporary members' equity.

(w) Recent Accounting Pronouncements

In May 2014, the FASB issued Accounting Standard Update (ASU) 2014-09, *Revenue from Contracts with Customers*, Topic 606, which provides a framework for the recognition of revenue, with the objective that recognized revenues properly reflect amounts an entity is entitled to receive in exchange for goods and services. This guidance will be effective for interim and annual reporting periods beginning after December 15, 2017. The Company is in the process of evaluating the new standard and assessing the impact, if any, ASU 2014-09 will have on the Company's consolidated financial statements.

In January 2016, the FASB issued ASU 2016-01, Recognition and Measurement of Financial Assets and Financial Liabilities (Subtopic 825-10). The ASU revises the measurement and presentation of investments in certain financial assets and liabilities and enhances disclosures about those investments. The update will be effective for fiscal years beginning after December 15, 2017. The adoption of ASU 2016-01 is to be applied on a cumulative-effect adjustment to the balance sheet as of the beginning of the fiscal year of adoption. The Company is assessing ASU No. 2016-01's impact and will adopt it when effective.

In February 2016, the FASB issued ASU No. 2016-02, *Leases* (Topic 842), which requires lessees to recognize most leases on the balance sheet. The provisions of this guidance are effective for annual periods beginning after December 15, 2018, and interim periods within those years, with early adoption permitted. The Company is assessing ASU No. 2016-02's impact and will adopt it when effective.

In August 2016, the FASB issued ASU No. 2016-15, *Statement of Cash Flows: Classification of Certain Cash Receipts and Cash Payments*, (Topic 230). This ASU will make eight targeted changes to how cash receipts and cash payments are presented and classified in the statement of cash flows. The ASU will be effective for fiscal years beginning after December 15, 2017. This standard will require adoption on a retrospective basis unless it is impracticable to apply, in which case it would be required to apply the amendments prospectively as of the earliest date practicable. The Company is assessing ASU No. 2016-15's impact and will adopt it when effective.

(3) Significant Risks and Uncertainties

The Company's budgeted cash requirements for 2018 and beyond include expenses related to continuing development and clinical evaluation of its products and therapies, as well as preparing for related

commercialization of our products. Based on the Company's available cash resources and cash flow projections as of the date the consolidated financial statements were available for issuance, it believes it has sufficient funds to continue its operations and research and development programs at least through April, 2019. Until the Company can generate significant cash from its operations, the Company expects to continue to fund its operations with its available financial resources. These financial resources may not be adequate to sustain its operations and the Company will be required to finance future cash needs through the sale of additional equity or debt securities. However, the Company cannot be certain that additional financing will be available when needed or that, if available, financing will be obtained on terms favorable to the Company or its Members. The capital markets have experienced volatility in recent years, which has resulted in uncertainties with respect to availability of capital and hence the timing to meet an entity's liquidity needs. Having insufficient funds may require the Company to delay, scale-back or eliminate some or all of its programs or renegotiate less favorable terms than it would otherwise choose. Failure to obtain adequate financing also may adversely affect its ability to operate as a going concern.

In addition to the FDA release received by the Company for two indications (see Note 1), the Company is seeking approvals and clearances by the FDA for additional indications. In connection therewith, the Company will incur additional time and costs and will require additional funding to obtain such approvals and clearances. The additional time, costs, and funding is expected to be substantial.

The Company is highly dependent upon the technical and management skills of several of its officers.

The Company's potential growth may cause a significant strain on its management, operational, and financial resources. Its ability to manage its growth effectively will require it to continue to implement and improve its operational and financial systems. The Company's success also depends in large part on a limited number of current key technical, marketing, and sales employees and on the Company's ability to continue to attract and retain additional highly talented personnel.

The Company has foreign currency exchange risks related to revenue and operating expenses in currencies other than the local currencies in which they operate. The Company is exposed to currency risk from the potential changes in functional currency values of their foreign currency denominated assets, liabilities, and cash flows.

ELECTROCORE, LLC, SUBSIDIARIES AND AFFILIATE

Notes to Consolidated Financial Statements—(Continued)

December 31, 2017 and 2016

(4) Marketable Securities

The Company considers all of its current investments to be available-for-sale. Marketable securities at December 31, 2017 consisted of the following:

	Amortized Cost	Unrealized Gain	Unrealized (Loss)	Fair Value
Treasury Notes (Included in Cash and Cash Equivalents)	$ 999,726	$ —	$ (86)	$ 999,640
Corporate Debt Securities	$19,014,590	$ 923	$ (17,827)	$18,997,686
Commercial Paper	2,979,367	—	(1,227)	2,978,140
U.S. Government Sponsored Agencies	1,496,824	—	(2,029)	1,494,795
Certificate of Deposits	480,000	—	(55)	479,945
Total Marketable Securities	$23,970,781	$ 923	$ (21,138)	$23,950,566
Total Investments	$24,970,507	$ 923	$ (21,224)	$24,950,206

Maturities of debt securities classified as available-for-sale were as follows at December 31, 2017:

	Fair Value
Due within one year	$ 23,950,566
Due after one year through five years	—
	$ 23,950,566

The Company had no marketable securities at December 31, 2016.

ELECTROCORE, LLC, SUBSIDIARIES AND AFFILIATE

Notes to Consolidated Financial Statements—(Continued)

December 31, 2017 and 2016

(5) Fair Value Measurements

A summary of the assets and liabilities carried at fair value in accordance with the hierarchy defined above is as follows:

	Carrying Value	Fair Value Hierarchy: Quoted Prices in active markets for identical instruments (Level 1)	Fair Value Hierarchy: Significant other observable inputs (Level 2)	Fair Value Hierarchy: Significant unobservable inputs (Level 3)
December 31, 2017				
Assets				
Cash and cash equivalents	$ 13,224,194	$13,224,194	$ —	$ —
Marketable Securities:				
Corporate Debt Securities	18,997,686	18,997,686	—	—
Commercial Paper	2,978,140	2,978,140	—	—
U.S. Government Sponsored Agencies	1,494,795	1,494,795	—	—
Certificate of Deposits	479,945	479,945	—	—
Total	$ 37,174,760	$37,174,760	$ —	$ —
Liabilities				
Warrant liabilities	$ 2,239,544	$ —	$ —	$2,239,544

	Carrying Value	Fair Value Hierarchy: Quoted Prices in active markets for identical instruments (Level 1)	Fair Value Hierarchy: Significant other observable inputs (Level 2)	Fair Value Hierarchy: Significant unobservable inputs (Level 3)
December 31, 2016				
Assets				
Cash and cash equivalents	$ 416,336	$ 416,336	$ —	$ —
Liabilities				
Warrant liabilities	$ 480,636	$ —	$ —	$ 480,636
Derivative instrument related to convertible bridge notes	$ 358,146	$ —	$ —	$ 358,146

During the years ended December 31, 2017 and 2016, the Company has not changed the manner in which it values assets and liabilities that are measured at fair value using Level 3 inputs. The Company recognizes transfers between levels of the fair value hierarchy as of the end of the reporting period. There were no transfers within the hierarchy during the years ended December 31, 2017 and 2016.

Cash and cash equivalents, consisted of cash in bank checking and savings accounts, money market funds and U.S. treasury notes and are classified within Level 1 of the fair value hierarchy because they are valued using quoted market prices in active markets.

Marketable securities classified as debt securities available for sale consist of investments in of corporate debt securities, commercial paper, U.S. government sponsored agencies and certificate of deposits. The

Company's marketable securities are valued using quoted prices in active markets and therefore these securities were classified as Level 1.

The warrant liability was recorded at fair value determined by using the probability weighted expected return method and option pricing models. This method of valuation involves using inputs such as the fair value of the Company's Common Units, unit price volatility, the contractual term of the warrant, risk free interest rates and dividend yields. Due to the nature of these inputs, the valuation of the warrant liability was considered a Level 3 measurement.

As of December 31, 2017 and 2016, the estimated fair values of the warrant liability were computed using the following assumptions:

	2017	2016
Stock price volatility	65.3%	71.7%
Risk-free interest rates	1.59%	1.33%
Annual dividend yield	0%	0%
Expected life (years)	0.65	2.50

The derivative liability as of December 31, 2016 related to the convertible bridge notes was recorded at fair value determined by using an alternative discounted cash flow method. This method of valuation involves using inputs such as (1) a 50% required rate of return, (2) 80% probability of a qualified financing round closing prior to the maturity of the convertible Bridge Notes, and (3) the option's ability to convert at a 10% discount into the expected next qualified financing round. Due to the nature of these inputs, the valuation of the derivative instrument was considered a Level 3 measurement.

A roll-forward of the recurring fair value measurements of the liabilities categorized with Level 3 inputs are as follows:

	Warrant liabilities	Derivative instrument related to convertible bridge notes
Opening Balance as of January 1, 2016	$ —	$ —
Additions	480,636	358,146
Settlements	—	—
Changes in fair value recognized	—	—
Closing Balance as of December 31, 2016	480,636	358,146
Additions	2,620,681	1,789,472
Settlements	—	(2,495,781)
Changes in fair value recognized	(861,773)	348,163
Closing Balance as of December 31, 2017	$2,239,544	$ —

During 2017, the warrant liability increased due to the issuance of additional Bridge Notes, the issuance of Series B Preferred Units as well as fees to bankers and advisors all of which included additional warrants deemed to be liability classified.

During 2017, the embedded derivative increased due to the issuance of additional Bridge Notes which contained the conversion feature deemed to be a derivative. As of December 31, 2017, the derivative instrument related to the Convertible Bridge Notes was eliminated at the time of the conversion of the Bridge Notes to the Series B Preferred Units.

At December 31, 2016, the fair value of the Company's convertible bridge notes outstanding was $5,621,130. The convertible bridge notes do not have quoted prices in active markets and are valued using a discounted cash flow methodology. This methodology uses significant unobservable inputs, which are deemed to be level 3 inputs in the fair value hierarchy.

(6) Inventories

Inventories as of December 31, 2017 and 2016 consisted of the following:

	2017	2016
Raw materials	$116,909	$15,267
Work in process	17,115	—
Finished goods	193,763	33,204
	$327,787	$48,471

(7) Property and Equipment – Net

Property and equipment, net as of December 31, 2017 and 2016 consisted of the following:

	2017	2016
Machinery and equipment	$ 452,614	$ 379,614
Furniture and fixture	156,512	87,664
Computer equipment	138,534	127,856
Property, plant and equipment – gross	747,660	595,134
Less accumulated depreciation and amortization	(579,014)	(546,708)
Property, plant and equipment – net	$ 168,646	$ 48,426

Depreciation and amortization expense for the years ended December 31, 2017 and 2016 were $32,306 and $53,425, respectively.

(8) Accounts Payable and Accrued Expenses

Accounts payable and accrued expenses as of December 31, 2017 and 2016 consisted of the following:

	2017	2016
Accrued expenses	$ 2,380,059	$ 740,832
Accounts payable	840,383	2,241,117
Due to employees	659,333	225,963
Accrued interest expense	—	88,627
	$ 3,879,775	$ 3,296,539

ELECTROCORE, LLC, SUBSIDIARIES AND AFFILIATE

Notes to Consolidated Financial Statements—(Continued)

December 31, 2017 and 2016

(9) Pro Forma Net Loss Per Unit (Unaudited)

Unaudited pro forma basic and diluted net loss per unit for the years ended December 31, 2017 and 2016, gives effect to the assumed automatic conversion of all of our outstanding Common Units, Series A Preferred Units and Series B Preferred Units immediately prior to the closing of an initial public offering (IPO) by the Company. Prior to the consummation of an IPO each Series A Preferred Unit will convert into 70,918,506 shares of the Company's common stock on a conversion ratio of 1:1. Each Series B Preferred Unit will also convert into 105,186,020 shares of the Company's common stock on a conversion ratio of 1:1. For purposes of pro forma basic and diluted net loss per unit, all Series A Preferred Units and Series B Preferred Units have been treated as though they have been converted to common stock at the later of the issuance date or January 1, 2016. Unaudited pro forma loss per unit does not consider shares issued in an IPO.

In addition, unaudited pro forma net loss per Unit gives effect to income tax adjustments as if the Company was a taxable entity as of the beginning of the period. Prior to consummation of an IPO, the Company will convert into a C-corporation and will be subject to federal and state income taxes.

The Company has reported a net loss for the years ended December 31, 2017 and 2016. Further, based on the Company's history of generating operating losses and its anticipation of operating losses continuing in the foreseeable future, the Company has determined that it would not have been more likely than not that the tax benefits from these net operating losses would be realized and a full valuation allowance against all deferred tax assets would be recorded on a pro forma basis. Therefore, for the purposes of the pro forma tax provision, income tax expense is determined to be zero.

The Company has excluded all common equivalent shares outstanding for Profits Interests, warrants and convertible instruments from the calculation of diluted net loss per share because all such securities are antidilutive.

The following table summarizes the computation of pro forma basic and diluted net loss per unit attributable to common stockholders for the years ended December 31, 2017 and 2016.

	Years ended December 31,	
	2017	2016
Numerator – Basic and Diluted		
Loss from operations before income taxes	$ (35,792,422)	$ (15,737,339)
Pro forma provisions/(benefit) for income taxes	—	—
Pro forma net loss	$ (35,792,422)	$ (15,737,339)
Denominator – Basic and Diluted		
Weighted average pro forma Common Units outstanding	157,858,731	82,233,294
Weighted average pro forma Common Units issued upon conversion of Series A Preferred Units	70,918,506	68,332,912
Weighted average pro forma Common Units issued upon conversion of Series B Preferred Units	79,520,500	—
Pro forma weighted average number of Common Units	308,297,737	150,566,206
Net loss per Unit, Basic and Diluted	$ (0.12)	$ (0.10)

(10) Convertible Preferred Units and Members' Equity

The Company's operating agreement, as amended and restated in August 2017 and then again in November 2017, permits the issuance of four classes of Units – Series A Preferred Units, Series B Preferred Units, Series B-1 Preferred Units and Common Units. Each member is entitled to one vote for each Unit held and the Units of all classes and series shall vote together as a single class on all matters (on an as converted to Common Unit basis).

The amended and restated operating agreement contains specific provisions for payments in respect of the Series A Preferred Units, the Series B Preferred Units and the Common Units for liquidating and non-liquidating distributions. There are also provisions for payments in respect of the Series A Preferred Units, Series B Preferred Units and Common Units when certain deemed liquidation events occur, which are a merger or consolidation of the Company or sale of all or substantially all of the assets of the Company.

Elimination of Series A Preferred Unit Distribution Preference and Common Unit Distribution Preference

On August 18, 2017, in exchange for the modification of certain liquidation preferences payable to the holders of the Series A Preferred Units, each holder of the Series A Preferred Units received Common Units based on a fraction where the numerator was the issue price for the Series A Preferred Units held and the denominator was 1.17. This resulted in the issuance of 46,943,104 Common Units at a total fair value of $16,430,086 on August 18, 2017.

Similarly, on August 18, 2017, for the elimination of the entire preference amount of $30,912,091 payable to the Common Investors, as defined in the original operating agreement, each such investor received Common Units based on the fraction, the numerator of which was the Common Preference Amount due each Common Investor and the denominator of which was 1.17. This resulted in the issuance of 26,422,070 Common Units at a total fair value of $9,247,724 on August 18, 2017.

Series A Preferred Units

The Series A Preferred Units are entitled to a preference on distributions, ahead of the Common Units but behind Series B Preferred Units, in the amount of $54,923,430 plus the Series A Preferred Return (as described below), as of December 31, 2017.

The Series A Preferred Units are entitled to a return in an annual non-compounded amount with respect to each outstanding Series A Preferred Unit equal to the product of the Series A Preferred Return Percentage and the Series A Unreturned Capital Value for each Unit, which shall accrue to the extent not paid. The Series A Preferred Return Percentage is 4% and may be reduced to 2% if certain requirements are met as outlined in the amended and restated operating agreement. Additionally, except upon an IPO or a liquidation event, the payment of the Series A Preferred Return is at the sole discretion of the Board of Managers. As of December 31, 2017 and December 31, 2016, the Series A Preferred Return in arrears aggregated to $7,535,079 and $5,338,142, respectively. Following the 2017 amendments to the operating agreement, the Series A Preferred Return payable upon a public offering of the Company's common stock was fixed at $3,629,092 and is payable, at the Company's election, in cash or shares of the Company's common stock but is expected to be paid in common stock. This incremental value would be recorded as a distribution to Series A Preferred Unit holders in the event of a public offering of the Company's common stock.

The Series A Preferred Units are convertible into Common Units at the option of the holder, or mandatorily upon the occurrence of an initial public offering or other specified events into one

ELECTROCORE, LLC, SUBSIDIARIES AND AFFILIATE

Notes to Consolidated Financial Statements—(Continued)

December 31, 2017 and 2016

Common Unit as outlined in amended and restated operating agreement. In addition, in connection with the Company's Operating Agreement the Company has the ability to reserve a sufficient number of Common Units to enable the conversion of all Series A Preferred Units.
The Series A Preferred Units also have other protective provisions that prohibit the Company from taking certain actions as outlined in the amended and restated operating agreement without the prior written consent of the holders of not less than 66% of the total outstanding Series A Preferred Units, which consent, subject to certain exceptions, must include the consent of Core Ventures II, LLC (CV II) and Merck Global Health Innovation Fund, LLC (Merck GHI).

The holders of the Series A Preferred Units, including CVII and Merck GHI purchased an aggregate amount of $50,692,432 of Series A Preferred Units through December 31, 2016, at an initial closing and several required milestone closings, several optional milestone closings, as well as from the exercise of certain warrants, net of related issuance costs. No Series A Preferred Units were issued after December 31, 2016. The Series A Preferred Units were issued as follows:

Closing date	Number of Series A Preferred Units/warrants		Price per unit	Aggregate issuance price	Fiscal year 2013	2014	2015	2016
March 2013	20,400,669	Preferred Units	$ 0.73527	$ 15,000,000	$ 15,000,000			
		Total, initial closing		$ 15,000,000				
December 2013	4,533,482	Preferred Units	0.73527	$ 3,333,334	3,333,334			
April 2014	9,066,964	Preferred Units	0.73527	6,666,666		$ 6,666,666		
June 2014	6,800,222	Preferred Units	0.73527	5,000,000		5,000,000		
		Total, required milestone closing		$ 15,000,000				
September 2014	5,882,353	Preferred Units	0.85	$ 5,000,000		5,000,000		
January 2015	5,882,353	Preferred Units	0.85	5,000,000			$ 5,000,000	
April 2015	5,882,353	Preferred Units	0.85	5,000,000			5,000,000	
November, 2015	2,552,941	Preferred Units	0.85	2,064,065			2,064,065	
March, 2016	2,000,000	Preferred Units	0.85	1,700,000				$ 1,700,000
		Total, optional milestone closing		$ 18,764,065	18,333,334	16,666,666	12,064,065	1,700,000
November, 2015	2,266,741	Exercise of warrants	0.73527				1,666,667	
March, 2016	2,266,741	Exercise of warrants	0.73527					1,666,667
		Issuance costs			(953,466)	(300,000)	(151,501)	—
		Net proceeds			$ 17,379,868	$ 16,366,666	$ 13,579,231	$ 3,366,667

As of December 31, 2016 and December 31, 2017, there were outstanding (i) warrants to purchase 132,354 Series A Preferred Units issued in connection with the Company's venture debt financing (see Note 11), and (ii) warrants to purchase 89,412 Series A Preferred Units issued to one of the Company's financial advisors. All other warrants to purchase Series A Preferred Units have either been exercised or have expired and no new warrants to purchase Series A Preferred Units were issued in 2017.

Series B Preferred Units

In 2017, the Company entered into a Series B Preferred Unit Purchase Agreement with, among others, CV II, Merck GHI and AIH. Under the terms of the Purchase Agreement, as amended, through December 31, 2017, the Company received cash proceeds of $46.9 million and converted $26.7 million of Bridge Notes and related accrued and unpaid interest for an aggregate amount of $73,630,210

(inclusive of amounts mentioned in Note 12 related to conversion of Bridge Notes and related accrued and unpaid interest) through the sale of Series B Preferred Units at an initial closing and several additional closings.

The Series B Preferred Units are entitled to a preference on distributions ahead of the Series A Preferred Units and the Common Units, in the amount of $73,630,210 as of December, 31, 2017.

The Series B Preferred Units are convertible into Common Units at the option of the holder, or mandatorily upon the occurrence of an initial public offering or other specified event, into one common unit as outlined in the amended and restated operating agreement. In addition, in connection with the Company's Operating Agreement the Company has the ability to reserve a sufficient number of Common Units to enable the conversion of all Series B Preferred Units.

The Series B Preferred Units also have other protective provisions that prohibit the Company from taking certain actions as outlined in the amended and restated operating agreement without the prior written consent of the holders of not less than 66% of the total outstanding Series B Preferred Units, which consent, subject to certain exceptions, must include the consent of CV II, Merck GHI and American Investment Holdings LLC (AIH).

In connection with these Series B Preferred Unit closings, the Company also issued 18,340,000 common units to investors at a relative fair value of $4,074,447.
In connection with all Series B Preferred Unit closings, the Company also issued warrants for the purchase of 35,452,084 Common Units at an exercise price of $1.25 per Unit, which warrants expire on the earlier of 5 years from issuance and the closing of the Company's IPO. The Company also issued warrants to advisors for the purchase of 2,724,549 Common Units at an exercise price of $0.70 per Unit and 72,000 common warrants at $1.25 per Unit. The fair value of these warrants to purchase common units are recorded within additional-paid-in-capital.

At December 31, 2017, there were warrants to purchase (i) 7,739,092 Series B Preferred Units at $0.70 per unit outstanding that were issued to purchasers of our Bridge Notes (see Note 12) and (ii) 1,820,134 Series B Preferred Units at $0.70 per unit that were issued to our financial advisors.

(11) Term Loan

On December 22, 2015, the Company entered into a Loan and Security Agreement (the Bank Agreement) with Pacific Western Bank (Bank) pursuant to which the Company received a term loan of $1,250,000. The Bank Agreement also provided for three additional term loans aggregating $6,250,000, available at various dates through June 2017. In connection with the financing, the Bank received 66,177 warrants to purchase Series A Preferred Units at an exercise price of $0.85 per Unit. These warrants expire on December 22, 2025.

One of the conditions related to the Bank Agreement required the Company to receive proceeds of not less than $8,000,000 on or prior to April 30, 2016, from the issuance of Series A Preferred Units. Due to the Company's failure to satisfy such requirement, the Bank delivered a Notice of Default and in May 2016, the Company repaid the $1,250,000 term loan balance in full and the Bank Agreement was terminated.

On December 22, 2015, the Company also entered into a Loan and Security Agreement (CV II Agreement) with CV II pursuant to which the Company received a term loan from CV II of $1,250,000 (CV II term loan). The CV II term loan was subordinated to the term loan received from the Bank. In connection with the financing, CV II received 66,177 warrants to purchase Series A Preferred Units at an exercise price of $0.85 per Unit. These warrants expire on December 22, 2025.

Pursuant to the terms of the CV II Agreement, CV II opted to convert the term loan of $1,250,000 and related accrued interest of $49,935 into the Company's Series A Preferred Units in 2016, at a per Unit price of $0.85 per Unit.

The fair value of the warrants issued to the Bank and CV II aggregated $59,030. The Company also incurred issuance costs related to the financing of $134,137. The fair value of the warrants and issuance costs attributable to the loan per the Bank Agreement aggregating $96,584 were recognized under amortization of debt discount and issuance costs for the year ended December 31, 2016. The fair value of the warrants and issuance costs attributable to the proceeds received from the CV II term loan aggregating $96,583 were recognized as a reduction from the amount allocated to Series A Preferred Units.

Interest on both the loans were payable at a variable annual rate of 7.30% plus LIBOR subject to a minimum of 7.5%.

As of December 31, 2017 and 2016, respectively, warrants to purchase 132,354, Series A Preferred Units issued in connection with the term loans remained outstanding.

(12) Convertible Bridge Notes

Beginning in June 2016, the Company commenced raising new capital under a Bridge Note and Warrant Purchase Agreement (the Bridge Financing). Under the original terms of the Bridge Financing, investors were issued a convertible promissory note (the Bridge Note) bearing annual interest at 10%, and a warrant to purchase the securities issued in the Company's next equity financing (the Next Round Securities) in an amount equal to 20% of the face amount of the Bridge Note (the Bridge Note Warrants). The face value and accrued interest under the Bridge Notes were originally automatically convertible into the Next Round Securities upon the Company's next bona fide equity financing round that raised not less than $8 million (exclusive of the Bridge Notes) (Qualified Equity Round) at a 10% discount to the purchase price payable for such Next Round Securities (the Next Round Price). In addition, the Bridge Notes were also convertible into Series A Preferred Units at $0.85 per Unit, at the option of the holders. In September 2016 the terms of the Bridge Financing were amended (September 2016 amendment) to provide that subsequent purchasers of Bridge Notes would also receive up to two Common Units for each one dollar of principal amount of Bridge Notes purchased. The Bridge Note Warrants are exercisable for a period of five years and entitle each holder to purchase the Next Round Securities in an amount equal to 20% of principal amount of the Bridge Notes purchased by each such investor divided by the Next Round Price, with an exercise price equal to the Next Round Price.

In 2016, the Company issued Bridge Notes aggregating $7,121,130 (including $5,060,025 purchased by CV II and $1,500,000 purchased by ECNG, LLC (ECNG), an investor affiliated with CV II). In September 2016, ECNG elected to convert $1,500,000 of its holdings in Bridge Notes, and accrued interest of $26,096, into 1,795,407 Series A Preferred Units. The remaining Bridge Notes were outstanding as of December 31, 2016, with a maturity date of one year from the applicable original issuance dates.

In 2017, the Company issued Bridge Notes aggregating $19,965,091. The terms of these Bridge Notes were the same as those issued in 2016.

Since the Bridge Note Warrants entitle the holders to purchase securities in the Qualified Equity Round at the purchase price payable for the related equity securities, the exercise price of the warrants was undetermined at the time of their issuance. Also, because the terms of redemption of the Series B Preferred Units were unknown at the time of their issuance as well as the deemed liquidation terms discussed in Note 10, the warrants are recorded as liabilities. In connection with the Bridge Note closings, at the time of the Qualified Equity Round, the Company issued 7,739,092 Bridge Note Warrants all of which are outstanding as of December 31, 2017.

Under ASC Topic 815, certain contractual terms that meet the accounting definition of a derivative must be accounted for separately from the financial instrument in which they are embedded. The Company has concluded that the right of the Bridge Note investors to convert the face value and accrued interest to Company’s equity securities constitutes embedded derivatives.

For the Bridge Financing closing in 2016 the Company determined the amount attributable to the Common Units issued in 2016 in connection with the Bridge Notes at relative fair value at $1,274,804 and the amounts attributable to Bridge Note Warrants and embedded derivatives related to Qualified Equity Financing at fair values at $480,636 and $358,146 respectively at December 31, 2016. The fair value for the embedded derivative related to the option to convert to Series A Preferred Units was deemed immaterial.

For the Bridge Financing closing in 2017, the Company determined the amount attributable to the Common Units issued in 2017 in connection with the Bridge Notes at relative fair value at $4,241,180 and the amounts attributable to Bridge Note Warrants and embedded derivatives related to Qualified Equity Financing at fair values at $2,149,100 and $1,789,472 respectively. The fair value for the embedded derivative related to the option to convert to Series A Preferred Units was deemed immaterial.

As of December 31, 2016, the amount related to Common Units, Bridge Note Warrants and the embedded derivatives were recorded as a discount on the Bridge Notes and are being amortized over the maturity term of the respective Bridge Notes. At December 31, 2016, the unamortized discount on the Bridge Notes was $1,758,361.

In connection with the Bridge Financing, the Company engaged two advisors (the Advisors) to serve as placement agents. The Advisors are entitled to a combined placement agent fee of 10% of the principal amount of the Bridge Notes sold to investors first introduced to the Company by the Advisors, five-year warrants to purchase securities in the Qualified Equity Round at the purchase price payable for the related equity securities (Advisor Warrants), and the right to purchase 9% of the number of securities issuable upon the conversion of the Bridge Notes issued to such investors. In addition, one of the Advisors is also entitled to receive one-half of a Common Unit for each one dollar of principal amount of Bridge Notes purchased by investors first introduced to the Company by such Advisor.

During the year ended December 31, 2017 and 2016, investors introduced by the Advisors purchased Bridge Notes with an aggregate principal amount of $11,771,119 and $561,105, respectively.

In 2017, with respect to such Bridge Notes and associated Common Units and Bridge Note Warrants, the Company incurred total costs of $2,467,455 (inclusive of $952,901 representing fair value of 5,095,218 common units and $495,510 representing fair value of 1,692,431 Advisor Warrants, to be issued by the Company at the time of the Qualified Equity Round); $1,791,422 of such amount was recognized as a discount on the Bridge Notes and will be amortized over the maturity term of the Bridge Notes. Based on the fair values of the financial instruments issued in connection with the Bridge Notes, the remaining amount was allocated as follows: $409,735 to Common Units and $266,297 to Bridge Note Warrants. The amount allocated to Common Units was netted against the related proceeds and the amount related to Bridge Note Warrants was expensed during the year ended December 31, 2017.

In 2016, with respect to such Bridge Notes and associated Common Units and Bridge Note Warrants, the Company incurred total costs of $133,289 (inclusive of $15,712 representing fair value of 72,142 Advisor Warrants, to be issued by the Company at the time of the Qualified Equity Round); $109,933 of such amount was recognized as a discount on the Bridge Notes and will be amortized over the maturity term of the Bridge Notes. Based on the fair values of the financial instruments issued in connection with the Bridge Notes, the remaining amount was allocated as follows: $9,282 to Common Units and $14,014 to Bridge Note Warrants. The amount allocated to Common Units was netted against the related proceeds and the amount related to Bridge Note Warrants was expensed during the year ended December 31, 2016.

As permitted by ASC Topic 470-10-45-14, Debt, as of December 31, 2016, the Bridge Notes have been classified as long-term liabilities. In connection with the initial closing under the Series B Preferred Unit Purchase Agreement entered into in August 2017, all outstanding Bridge Notes (aggregating $25,586,220), together with all related accrued and unpaid interest aggregating $1,132,690, were automatically converted into Series B Preferred Units, at $0.70 per Unit. At this time all unamortized debt discount and discount related to debt issuance costs was derecognized and included in Net loss on settlement of convertible bridge notes.

(13) Unit-Based Compensation

In connection with employment and service provider agreements the Company has awarded grantees Units that constitute profits interests for income tax purposes, subject to certain restrictions defined in each Unit forfeiture agreement. The Company maintains a Unit award account for each of the grantees. Generally, the Units vest 25% on the one year anniversary of the employment start date or agreement date and the balance ratably per quarter thereafter over an additional three-year period. After the restrictions lapse, the grantees become fully vested in such Units.

ELECTROCORE, LLC, SUBSIDIARIES AND AFFILIATE

Notes to Consolidated Financial Statements—(Continued)

December 31, 2017 and 2016

The following summarizes activity related to the Company's unvested Unit awards for the year ended December 31, 2017 and 2016:

	Number of units	Weighted average grant date fair value
Outstanding Balance as of January 1, 2016	3,052,914	$ 0.06
Granted	11,251,553	$ 0.08
Vested	(845,449)	$ 0.05
Forfeited	(1,934,170)	$ 0.05
Outstanding Balance as of December 31, 2016	11,524,848	$ 0.08
Granted	21,206,589	$ 0.02
Vested	(10,095,715)	$ 0.03
Outstanding Balance as of December 31, 2017	22,635,722	$ 0.04

As of December 31, 2017 and 2016 there were $933,398 and $878,471, respectively, of total unrecognized compensation cost related to unvested Unit-based compensation awards respectively, which are expected to be recognized over a weighted average period of four years.

The Company utilizes the Black Scholes option pricing model for estimating the fair value of all Units granted. The fair value of each Unit is estimated on the date of the grant. The fair value is then amortized using graded-vesting over the requisite service period for each separately vesting portion of the award as if the award was, in-substance, multiple awards.

The weighted average assumptions for the Units granted during the years ended December 31, 2017 and 2016 are provided in the following table:

	2017	2016
Valuation assumptions:		
Expected dividend yield	0%	0%
Expected volatility	70.92%	79.10%
Expected term (years)	1.49	2.01
Risk-free interest rate	1.26%	0.64%

The risk-free interest rate is the average U.S. Treasury rate with a term that most closely resembles the expected life of the award for the year in which the award was granted. The expected life is the period of time that the awards granted are expected to remain outstanding. The expected life is calculated using a simplified method, as permitted by the accounting standards. Expected volatility is a measure of the amount by which the Unit price has fluctuated or is expected to fluctuate during a period. For volatility, the Company uses comparable public companies as a basis for its expected volatility. The Company does not pay regular dividends on its Units and does not anticipate paying any dividends in the foreseeable future.

For the years ended December 31, 2017 and 2016, Unit-based compensation expense is reported as a component of selling, general and administrative and research and development expense in the Company's Consolidated Statement of Operations.

(14) Variable Interest Entity

As discussed in note 1, electroCore is the primary beneficiary of electroCore (Aust) Pty Limited. electroCore has contributed certain intellectual property rights, all rights to distribute, market and sell specified products in Australia and New Zealand, and other rights outlined in the shareholders' deed of electroCore (Aust) Pty Limited in return for 50% of the shares of such entity. In addition, electroCore can also appoint two of the four directors and can exercise significant influence. This along with the fact that electroCore is electroCore (Aust) Pty Limited's only supplier causes electroCore, for accounting purposes, to be the primary beneficiary of electroCore (Aust) Pty Limited. The activities related to electroCore (Aust) Pty Limited are not material to the consolidated financial statements.

(15) Commitments and Contingencies

(a) *Operating Lease*

The Company leases office space under operating leases through April 2022. Future minimum lease payments under non-cancelable operating leases (with initial or remaining lease terms in excess of one year) as of December 31, 2017 are as follows:

Year ending December 31:	
2018	$ 552,524
2019	564,939
2020	577,353
2021	545,472
2022	195,437
	$ 2,435,725

For the years ended December 31, 2017 and 2016, rental expense related to the leases were $493,067 and $529,271, respectively.

(b) Legal Proceedings

The Company may from time to time be involved in various claims and legal actions arising in the ordinary course of its business. In the opinion of management, the ultimate disposition of any of these matters will not have a material adverse effect on the Company's consolidated financial position, results of operations, or liquidity.

(16) Employee Benefit Plan

The Company has a defined contribution 401(k) profit sharing plan which covers all employees. Employees are eligible upon date of hire. Employee contributions are voluntary and are based on specific percentages of compensation, which may not exceed maximum amounts established by Internal Revenue Code. Employer contributions are discretionary. There were no employer contributions for the years ended December 31, 2017 and 2016.

(17) Subsequent Events

The Company has evaluated subsequent events for the balance sheet date through March 30, 2018, the date at which the consolidated financial statements were available to be issued and determined that there are no other items to disclose, except as disclosed in note 1.

ELECTROCORE, LLC, SUBSIDIARIES AND AFFILIATE

Consolidated Balance Sheets

	March 31, 2018 (Unaudited)	December 31, 2017
Assets		
Current assets:		
Cash and cash equivalents	$ 1,520,466	$ 13,224,194
Debt securities and other investments available for sale	25,186,020	23,950,566
Accounts receivable, net	255,862	103,209
Inventories	321,187	327,787
Prepaid expenses and other current assets	1,345,630	570,755
Deferred financing costs	2,308,475	856,895
Total current assets	30,937,640	39,033,406
Property and equipment – net	306,433	168,646
Security deposits	30,604	30,604
Total assets	$ 31,274,677	$ 39,232,656
Liabilities, Convertible Preferred Units and Members' Deficit		
Current liabilities:		
Accounts payable and accrued expenses	$ 5,055,275	$ 3,879,775
Warrant liability	2,485,398	2,239,544
Total current liabilities	7,540,673	6,119,319
Noncurrent liabilities:		
Deferred rent	293,124	306,886
Total liabilities	7,833,797	6,426,205
Commitments and contingencies (Note 16)		
Convertible Preferred Units:		
Series A Preferred Units, 71,050,860 Units authorized at March 31, 2018 and at December 31, 2017; 70,918,506 Units issued and outstanding at March 31, 2018 and at December 31, 2017	53,518,463	53,518,463
Series B Preferred Units, 123,000,000 Units authorized at March 31, 2018 and at December 31, 2017; 105,186,020 Units issued and outstanding at March 31, 2018 and at December 31, 2017	68,755,544	68,755,544
Series B-1 Preferred Units, 23,529,412 Units authorized at March 31, 2018 and at December 31, 2017; 0 Units issued and outstanding at March 31, 2018 and at December 31, 2017	—	—
Total convertible preferred units	122,274,007	122,274,007
Members' deficit:		
Common Units, 600,000,000 Units authorized at March 31, 2018 and at December 31, 2017; 218,982,140 Units issued and outstanding at March 31, 2018 and at December 31, 2017	40,180,619	40,180,619
Additional paid-in capital	22,863,630	22,596,485
Accumulated deficit	(162,427,468)	(152,928,928)
Accumulated other comprehensive (loss) income	(59,048)	80,213
Total deficit attributable to Electrocore, LLC, subsidiaries and affiliate	(99,442,267)	(90,071,611)
Noncontrolling interest	609,140	604,055
Total members' deficit	(98,833,127)	(89,467,556)
Total liabilities, convertible preferred units and members' deficit	$ 31,274,677	$ 39,232,656

See accompanying notes to consolidated financial statements.

ELECTROCORE, LLC, SUBSIDIARIES AND AFFILIATE

Consolidated Statements of Operations

(Unaudited)

	Three months ended March 31,	
	2018	2017
Net sales	$ 81,187	$ 116,933
Cost of goods sold	48,948	72,747
Gross profit	32,239	44,186
Operating expenses:		
Research and development	2,306,335	1,726,557
Selling, general and administrative	6,824,814	3,059,261
Total operating expenses	9,131,149	4,785,818
Loss from operations	(9,098,910)	(4,741,632)
Other expense (income)		
Interest expense	—	1,040,093
Amortization of debt issuance costs	—	269,162
Change in fair value of warrant liability	245,854	177,976
Change in fair value of derivative instrument related to convertible bridge notes	—	128,063
Interest and other income, net	(109,283)	—
Other	208,054	—
Net loss	(9,443,535)	(6,356,926)
Less: Net income attributable to noncontrolling interest	55,005	—
Net loss attributable to Electrocore, LLC, subsidiaries and affiliate	$ (9,498,540)	$ (6,356,926)
Pro forma Net loss per Unit—Basic and Diluted (unaudited) (Note 11)	$ (0.02)	$ (0.04)
Pro forma Weighted average number of Common Units and potential Common Units outstanding—Basic and Diluted (unaudited) (Note 11)	395,086,660	166,790,093

See accompanying notes to consolidated financial statements.

ELECTROCORE, LLC, SUBSIDIARIES AND AFFILIATE

Consolidated Statements of Comprehensive Loss

(Unaudited)

	Three months ended March 31,	
	2018	2017
Net loss	$ (9,443,535)	$ (6,356,926)
Other comprehensive (loss) income:		
Foreign currency translation adjustment	(114,329)	13,767
Unrealized loss on debt securities and other investments available for sale	(24,932)	—
Other comprehensive (loss) income	(139,261)	13,767
Comprehensive loss	(9,582,796)	(6,343,159)
Less: Net comprehensive income attributable to noncontrolling interest	5,085	7,934
Net comprehensive loss attributable to Electrocore, LLC, subsidiaries and affiliates	$ (9,587,881)	$ (6,351,093)

See accompanying notes to consolidated financial statements.

ELECTROCORE, LLC, SUBSIDIARIES AND AFFILIATE

Consolidated Statements of Cash Flows

(Unaudited)

	Three months ended March 31,	
	2018	2017
Cash flows from operating activities:		
Net loss	$ (9,443,535)	$ (6,356,926)
Adjustments to reconcile net loss to net cash used in operating activities:		
Amortization of debt discount and debt issuance costs	—	1,041,132
Change in fair value of warrants and embedded derivative	245,854	306,039
Unit-based compensation	267,145	59,806
Depreciation	7,212	6,629
Other	(68,468)	(12,023)
Changes in operating assets and liabilities:		
Accounts receivable, net	(152,653)	(76,181)
Inventories	6,600	(99,005)
Prepaid expenses and other current assets	(774,874)	(36,743)
Accounts payable and accrued expenses	249,151	917,197
Deferred rent	(13,762)	(10,657)
Net cash used in operating activities	(9,677,330)	(4,260,732)
Cash flows from investing activities:		
Purchase of debt securities and other investments available for sale	(10,431,839)	—
Proceeds from maturities of debt securities and other investments available for sale	9,190,000	—
Purchases of property and equipment	(144,999)	(10,677)
Net cash used in investing activities	(1,386,838)	(10,677)
Cash flows from financing activities:		
Proceeds from issuance of convertible bridge notes	—	4,546,141
Financing costs related to the issuance of Convertible Bridge Notes	—	(377,297)
Deferred financing costs	(525,231)	—
Net cash (used in) provided by financing activities	(525,231)	4,168,844
Effect of changes in exchange rates on cash and cash equivalents	(114,329)	45,341
Net decrease in cash and cash equivalents	(11,703,728)	(57,224)
Cash and cash equivalents – beginning of period	13,224,194	416,336
Cash and cash equivalents – end of period	$ 1,520,466	$ 359,112
Supplemental schedule of noncash financing activity:		
Series B warrants issued in connection with convertible bridge notes	$ —	$ 665,374
Debt issuance cost included in accounts payable	—	126,645
Deferred financing costs in accounts payable and accrued expenses	926,349	—
Common units issued in connection with convertible bridge notes	—	862,721

See accompanying notes to consolidated financial statements.

ELECTROCORE, LLC, SUBSIDIARIES AND AFFILIATE

Notes to Consolidated Financial Statements

(Unaudited)

(1) Business and Organization

Electrocore, LLC ("electroCore" or the "Company") is a bioelectronic medicine company, engaged in developing a range of patient-administered non-invasive Vagus Nerve Stimulation (nVNS) therapies initially focused on the treatment of multiple conditions in neurology, rheumatology and other fields. electroCore was founded in 2005 and its focus currently is on primary headache (migraine and cluster headache), with trials continuing in other neurological and inflammatory disorders.

electroCore, headquartered in New Jersey, has wholly owned subsidiaries which include: electroCore Bermuda, Ltd., electroCore Germany GmbH, and electroCore UK Ltd. In addition, an affiliate, electroCore (Aust) Pty Limited, is subject to electroCore's control on bases other than voting interests and is a variable interest entity (VIE), for which electroCore is the primary beneficiary.

In Europe, the Company has received CE Marks for its noninvasive neuro-stimulation therapy (gammaCore®) to treat primary headache, bronchoconstriction, epilepsy, gastric motility disorders, and depression and anxiety.

In January 2018, the U.S. Food and Drug Administration (FDA) released the use of gammaCore®, a non-invasive vagus nerve stimulator therapy for the treatment of pain associated with migraine headache in adult patients. Previously in April 2017 the FDA released the use of gammaCore® for the acute treatment of pain associated with episodic cluster headache in adult patients.

(2) Basis of Presentation

The accompanying unaudited consolidated financial statements were prepared in conformity with U.S. generally accepted accounting principles (U.S. GAAP) and with Article 10 of Regulation S-X for interim financial reporting. In compliance with those rules, certain information and footnote disclosures normally included in annual consolidated financial statements prepared in accordance with U.S. GAAP have been condensed or omitted. These consolidated financial statements should be read in conjunction with the Company's consolidated financial statements and related notes for the fiscal year ended December 31, 2017. In the opinion of management, all adjustments (consisting of normal recurring adjustments) considered necessary for a fair statement of the results of interim periods have been included. The results of operations and cash flows reported in these consolidated financial statements should not be regarded as necessarily indicative of results that may be expected for the entire fiscal year.

(3) Summary of Significant Accounting Policies

(a) Principles of Consolidation

The accompanying consolidated financial statements include the accounts of electroCore and its wholly owned subsidiaries. electroCore (Aust) Pty Limited, a VIE for which electroCore is the primary beneficiary, is also consolidated with the non-controlled equity presented as non-controlling interest. All intercompany balances and transactions have been eliminated in consolidation.

(b) Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial

statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Significant items subject to such estimates and assumptions include the useful lives of fixed assets; allowances for doubtful accounts and sales returns; valuation of inventory, warrants, Unit-based compensation, vouchers, and contingencies.

(c) Recently Adopted Accounting Pronouncements

In May 2014, the FASB issued Accounting Standard Update (ASU) 2014-09, Revenue from Contracts with Customers ("ASC 606"). ASC 606 provides a comprehensive framework under which revenue is recognized when an entity transfers promised goods and services to a customer in an amount that reflects the consideration an entity is entitled to receive in exchange for those goods and services. Furthermore, ASC 606 contains expanded disclosure requirements to enable users of the financial statements to better understand the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers.

The Company adopted ASC 606 effective January 1, 2018, using the full retrospective method. The adoption of ASC 606 did not have a material impact on our consolidated balance sheet, statements of operations, or cash flows for the three months ended March 31, 2017. The primary impact of adoption related to the enhancement of our disclosures as provided in Note 5—Revenue Recognition.

In January 2016, the FASB issued ASU 2016-01, Recognition and Measurement of Financial Assets and Financial Liabilities (Subtopic 825-10). The ASU revises the measurement and presentation of investments in certain financial assets and liabilities and enhances disclosures about those investments. We adopted this guidance on January 1, 2018, which had no material impact on our consolidated balance sheet, statement of operations or cash flows.

In August 2016, the FASB issued ASU No. 2016-15, Statement of Cash Flows: Classification of Certain Cash Receipts and Cash Payments, (Topic 230). This ASU makes eight targeted changes to how cash receipts and cash payments are presented and classified in the statement of cash flows. We adopted this guidance on January 1, 2018, which had no material impact on our consolidated statement of cash flows.

(d) Recent Accounting Pronouncements

In February 2016, the FASB issued ASU No. 2016-02, Leases (Topic 842), which requires lessees to recognize most leases on the balance sheet. The provisions of this guidance are effective for annual periods beginning after December 15, 2018, and interim periods within those years, with early adoption permitted. The Company is assessing ASU No. 2016-02's impact and will adopt it when effective.

We reviewed all other recently issued accounting pronouncements and concluded that they were either not applicable or not expected to have a material impact on the consolidated financial statements.

(4) Significant Risks and Uncertainties

The Company's budgeted cash requirements for 2018 and beyond include expenses related to continuing development and clinical evaluation of its products and therapies, as well as preparing for related commercialization of our products. Based on the Company's available cash resources, cash flow projections as of the date the consolidated financial statements were available for issuance and reductions

in third party consulting costs, it believes it has sufficient funds to continue only operations that are primarily related to current product commercialization efforts at least through June, 2019. Until the Company can generate significant cash from its operations, the Company expects to continue to fund its operations with its available financial resources. These financial resources may not be adequate to sustain its operations and the Company will be required to finance future cash needs through the sale of additional equity or debt securities. However, the Company cannot be certain that additional financing will be available when needed or that, if available, financing will be obtained on terms favorable to the Company or its Members. The capital markets have experienced volatility in recent years, which has resulted in uncertainties with respect to availability of capital and hence the timing to meet an entity's liquidity needs. Having insufficient funds may require the Company to delay, scale-back or eliminate some or all of its programs or renegotiate less favorable terms than it would otherwise choose. Failure to obtain adequate financing also may adversely affect its ability to operate as a going concern.

In addition to the FDA release received by the Company for two indications (see Note 1), the Company is seeking approvals and clearances by the FDA for additional indications. In connection therewith, the Company will incur additional time and costs and will require additional funding to obtain such approvals and clearances. The additional time, costs, and funding is expected to be substantial.

The Company is highly dependent upon the technical and management skills of several of its officers.

The Company's potential growth may cause a significant strain on its management, operational, and financial resources. Its ability to manage its growth effectively will require it to continue to implement and improve its operational and financial systems. The Company's success also depends in large part on a limited number of current key technical, marketing, and sales employees and on the Company's ability to continue to attract and retain additional highly talented personnel.

The Company has foreign currency exchange risks related to revenue and operating expenses in currencies other than the local currencies in which they operate. The Company is exposed to currency risk from the potential changes in functional currency values of their foreign currency denominated assets, liabilities, and cash flows.

The Company deals primarily with one specialty pharmaceutical distributor in the United States. At March 31, 2018 and December 31, 2017, the accounts receivable related to this distributor was $187,795 and $31,740, respectively.

(5) Revenue Recognition

Performance Obligations

Revenue, net of specialty pharmaceutical distribution discounts, vouchers and co-payments assistance is solely generated from the sales of the gammaCore product. Sales are made to a specialty pharmaceutical distributor ("customer") and revenue is recognized when delivery of the product is completed. The Company deems control to have transferred upon the completion of delivery because that is the point in which (1) it has a present right to payment for the product, (2) it has transferred the physical possession of the product, (3) the customer has legal title to the product, (4) the customer has significant risks and rewards of ownership and (5) the customer has accepted the product. After the products have been delivered and control has transferred, the Company has no remaining unsatisfied performance obligations.

ELECTROCORE, LLC, SUBSIDIARIES AND AFFILIATE

Notes to Consolidated Financial Statements—(Continued)

(Unaudited)

Revenue is measured based on the consideration that the Company expects to receive in exchange for gammaCore, which represents the transaction price. The transaction price includes the fixed per-unit price of the product and variable consideration in the form of trade credits, vouchers and co-payment assistance. The per-unit price is based on the Company established wholesale acquisition cost less a contractually agreed upon distributor discount with the customer. Trade credits are discounts that are contingent upon a timely remittance of payment and is estimated based on historical experience. Vouchers are redeemable by select new patients for an initial 31-day therapy (i.e. one gammaCore device) free of charge. The Company initially estimated that 90% of the vouchers assigned to patients will be redeemed. The transaction price of the devices estimated to be redeemed through vouchers are recognized as contra-revenue. All other costs for units related to the voucher program and any other redemption costs due to the specialty pharmacy were included as promotional expenses in selling, general and administrative expense. For the three months ended March 31, 2018 contra-revenue and promotional expenses related to the vouchers redeemed and estimated to be redeemed were $323,665 and $76,516, respectively. In addition, reimbursement for co-payments made by patients is also considered variable consideration. Net sales reflect a reduction of $29,207 for payments made in conjunction with the program.

In accordance with Company policy, no allowance for product returns has been provided. Damaged or defective products are replaced at no charge under the Company's standard warranty. For the three months ended March 31, 2018 and 2017, the replacement costs were immaterial.

Payment for products is due in accordance with the terms agreed upon with customers, generally within 31 days of shipment to the customer. Accordingly, our contracts with customers do not include a significant financing component.

Disaggregation of Net Sales

The following table provides additional information pertaining to our net sales disaggregated by geographic market for the three months ended March 31, 2018 and 2017:

	For the three months ended March 31,	
	2018	2017
Geographic Market		
United States	$ 9,606	$ 2,215
United Kingdom	64,982	64,956
Germany	805	44,423
Other	5,794	5,339
Total Net Sales	$ 81,187	$ 116,933

Contract Balances

The Company generally invoices the customer and recognizes revenue once its performance obligations are satisfied, at which point payment is unconditional. Accordingly under ASC 606, the contracts do not give rise to contract assets or liabilities.

ELECTROCORE, LLC, SUBSIDIARIES AND AFFILIATE

Notes to Consolidated Financial Statements—(Continued)

(Unaudited)

(6) Cash, Cash Equivalents and Debt Securities and other Investments Available for Sale

The following tables summarizes the Company's cash, cash equivalents and debt securities and other investments available for sale as of March 31, 2018 and December 31, 2017.

	As of March 31, 2018			
	Amortized Cost	Unrealized Gain	Unrealized (Loss)	Fair Value
Cash and cash equivalents	$ 1,520,466	$ —	$ —	$ 1,520,466
Corporate Debt Securities	$15,060,602	$ —	$ (24,604)	$15,035,998
Commercial Paper	5,945,402	—	(14,637)	5,930,765
U.S. Government Sponsored Agencies	2,990,460	—	(5,301)	2,985,159
U.S. Treasury Bonds	994,789	—	(689)	994,100
Certificate of Deposits	240,000	—	(2)	239,998
Total debt securities and other investments available for sale	$25,231,253	$ —	$ (45,233)	$25,186,020
Total cash, cash equivalents and debt securities and other investments available for sale	$26,751,719	$ —	$ (45,233)	$26,706,486

Maturities of debt securities and certificate of deposits classified as available-for-sale were as follows at March 31, 2018:

	Fair Value
Due within one year	$ 25,186,020
Due after one year through five years	—
	$ 25,186,020

	As of December 31, 2017			
	Amortized Cost	Unrealized Gain	Unrealized (Loss)	Fair Value
Cash and cash equivalents	$13,224,280	$ —	$ (86)	$13,224,194
Corporate Debt Securities	$19,014,590	$ 923	$ (17,827)	$18,997,686
Commercial Paper	2,979,367	—	(1,227)	2,978,140
U.S. Government Sponsored Agencies	1,496,824	—	(2,029)	1,494,795
Certificate of Deposits	480,000	—	(55)	479,945
Total debt securities and other investments available for sale	$23,970,781	$ 923	$ (21,138)	$23,950,566
Total cash, cash equivalents and debt securities and other investments available for sale	$37,195,061	$ 923	$ (21,224)	$37,174,760

ELECTROCORE, LLC, SUBSIDIARIES AND AFFILIATE

Notes to Consolidated Financial Statements—(Continued)

(Unaudited)

Maturities of debt securities and certificate of deposits classified as available-for-sale were as follows at December 31, 2017:

	Fair Value
Due within one year	$ 23,950,566
Due after one year through five years	—
	$ 23,950,566

(7) Fair Value Measurements

Certain assets and liabilities are reported on a recurring basis at fair value. Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. Financial assets and liabilities carried at fair value are to be classified and disclosed in one of the following three levels of the fair value hierarchy, of which the first two are considered observable and the last is considered unobservable:

- Level 1—Quoted prices in active markets for identical assets or liabilities.
- Level 2—Observable inputs (other than Level 1 quoted prices), such as quoted prices in active markets for similar assets or liabilities, quoted prices in markets that are not active for identical or similar assets or liabilities, or other inputs that are observable or can be corroborated by observable market data.
- Level 3—Unobservable inputs that are supported by little or no market activity and that are significant to determining the fair value of the assets or liabilities, including pricing models, discounted cash flow methodologies and similar techniques.

ELECTROCORE, LLC, SUBSIDIARIES AND AFFILIATE

Notes to Consolidated Financial Statements—(Continued)

(Unaudited)

A summary of the assets and liabilities carried at fair value in accordance with the hierarchy defined above is as follows:

		Fair Value Hierarchy		
	Total	Quoted Prices in active markets for identical instruments (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
March 31, 2018				
Assets				
Cash and cash equivalents	$ 1,520,466	$ 1,520,466	$ —	$ —
Debt Securities and other Investments Available for Sale:				
Corporate Debt Securities	15,035,998	15,035,998	—	—
Commercial Paper	5,930,765	5,930,765	—	—
U.S. Government Sponsored Agencies	2,985,159	2,985,159	—	—
U.S. Treasury Bonds	994,100	994,100	—	—
Certificate of Deposits	239,998	239,998	—	—
Total	$26,706,486	$26,706,486	$ —	$ —
Liabilities				
Warrant liabilities	$ 2,485,398	$ —	$ —	$ 2,485,398

		Fair Value Hierarchy		
	Total	Quoted Prices in active markets for identical instruments (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
December 31, 2017				
Assets				
Cash and cash equivalents	$13,224,194	$13,224,194	$ —	$ —
Debt Securities and other Investments Available for Sale:				
Corporate Debt Securities	18,997,686	18,997,686	—	—
Commercial Paper	2,978,140	2,978,140	—	—
U.S. Government Sponsored Agencies	1,494,795	1,494,795	—	—
Certificate of Deposits	479,945	479,945	—	—
Total	$37,174,760	$37,174,760	$ —	$ —
Liabilities				
Warrant liabilities	$ 2,239,544	$ —	$ —	$ 2,239,544

During the periods ended March 31, 2018 and December 31, 2017, the Company has not changed the manner in which it values assets and liabilities that are measured at fair value using Level 3 inputs. The Company recognizes transfers between levels of the fair value hierarchy as of the end of the reporting

period. There were no transfers within the hierarchy during the three months ended March 31, 2018 and 2017.

Cash and cash equivalents consisted of cash in bank checking and savings accounts, money market funds and U.S. treasury notes and are classified within Level 1 of the fair value hierarchy because they are valued using quoted market prices in active markets.

Marketable securities classified as debt securities available for sale consist of investments in corporate debt securities, commercial paper, U.S. government sponsored agencies and certificate of deposits. The Company's marketable securities are valued using quoted prices in active markets and therefore these securities were classified as Level 1.

The warrant liability was recorded at fair value determined by using the probability weighted expected return method and option pricing models. This method of valuation involves using inputs such as the fair value of the Company's Common Units, unit price volatility, the contractual term of the warrant, risk free interest rates and dividend yields. Due to the nature of these inputs, the valuation of the warrant liability was considered a Level 3 measurement.

As of March 31, 2018 and December 31, 2017, the estimated fair values of the warrant liability were computed using the following assumptions:

	March 31, 2018	December 31, 2017
Stock price volatility	60.1%	65.3%
Risk-free interest rates	1.82%	1.59%
Annual dividend yield	0%	0%
Expected life (years)	0.41	0.65

This discounted cash flow method of valuation involves using inputs such as (1) a 50% required rate of return, (2) 80% probability of a qualified financing round closing prior to the maturity of the convertible Bridge Notes, and (3) the option's ability to convert at a 10% discount into the expected next qualified financing round. Due to the nature of these inputs, the valuation of the derivative instrument was considered a Level 3 measurement.

The significant unobservable inputs used in the fair value measurement of the Company's Series B warrants as of March 31, 2018 were a 28% weighted average cost of capital and a Series A dividend yield of 4%, and expected holding periods, volatility factors and risk-free interest rates for each respective exit scenario, including an IPO, strategic exit and second attempt at an IPO if the initial IPO is unsuccessful. A significant increase in the volatility factor, risk-free interest rate, Series B dividend yield or expected holding periods excluding the IPO in isolation could result in a significantly higher value for the Series B warrants. A significant increase in the discount rate, Series A dividend yield or expected holding period for the IPO in insolation could result in a significantly lower value for the Series B warrants.

ELECTROCORE, LLC, SUBSIDIARIES AND AFFILIATE

Notes to Consolidated Financial Statements—(Continued)

(Unaudited)

A roll-forward of the recurring fair value measurements of the liabilities categorized with Level 3 inputs are as follows:

	Warrant liabilities
Opening Balance as of January 1, 2017	$ 480,636
Additions	2,620,681
Settlements	—
Changes in fair value recognized	(861,773)
Closing Balance as of December 31, 2017	2,239,544
Additions	—
Settlements	—
Changes in fair value recognized	245,854
Closing Balance as of March 31, 2018	$2,485,398

During the three months ended March 31, 2018, the warrant liability increased due to the change in fair value of the warrants.

(8) Inventories

Inventories as of March 31, 2018 and December 31, 2017 consisted of the following:

	March 31, 2018	December 31, 2017
Raw materials	$ 93,826	$ 116,909
Work in process	100,241	17,115
Finished goods	127,120	193,763
	$321,187	$ 327,787

(9) Property and Equipment—Net

Property and equipment, net as of March 31, 2018 and December 31, 2017 consisted of the following:

	March 31, 2018	December 31, 2017
Machinery and equipment	$ 481,865	$ 452,614
Furniture and fixture	156,512	156,512
Computer equipment	112,587	138,534
Construction in process	115,749	—
Property, plant and equipment – gross	866,713	747,660
Less accumulated depreciation and amortization	(560,280)	(579,014)
Property, plant and equipment – net	$ 306,433	$ 168,646

ELECTROCORE, LLC, SUBSIDIARIES AND AFFILIATE

Notes to Consolidated Financial Statements—(Continued)

(Unaudited)

Depreciation and amortization expense for the three months ended March 31, 2018 and March 31, 2017 were $7,212 and $6,629, respectively.

(10) Accounts Payable and Accrued Expenses

Accounts payable and accrued expenses as of March 31, 2018 and December 31, 2017 consisted of the following:

	March 31, 2018	December 31, 2017
Accounts payable	$ 2,232,133	$ 840,383
Accrued professional fees	1,952,596	2,288,020
Due to employees	503,336	659,333
Other accrued expenses	367,210	92,039
	$ 5,055,275	$ 3,879,775

(11) Pro Forma Net Loss Per Unit

Basic and diluted net loss per unit for the three months ended March 31, 2018 and 2017, gives effect to the assumed automatic conversion of all the outstanding shares of Series A Preferred Units and Series B Preferred Units immediately prior to the closing of an initial public offering (IPO) by the Company. Prior to the consummation of an IPO, the Series A Preferred Unit will convert into 70,918,506 shares of the Company's common stock on a conversion ratio of 1:1 and the Series B Preferred Unit will convert into 105,186,020 shares of the Company's common stock on a conversion ratio of 1:1.

In addition, Net loss per Unit gives effect to income tax adjustments as if the Company was a taxable entity as of the beginning of the period. Prior to consummation of an IPO, the Company will convert into a C-corporation and will be subject to Federal and state income taxes.

The Company has reported a net loss for the three months ended March 31, 2018 and 2017. Based on the Company's history of generating operating losses and its anticipation of operating losses continuing in the foreseeable future, the Company has determined that it would not have been more likely than not that the tax benefits from these net operating losses would be realized and a full valuation allowance against all deferred tax assets would be recorded on a pro forma basis. Therefore, for the purposes of the pro forma tax provision, income tax expense is determined to be zero.

The Company has excluded all common equivalent shares outstanding for Profits Interests, warrants and convertible instruments from the calculation of diluted net loss per share because all such securities are antidilutive.

ELECTROCORE, LLC, SUBSIDIARIES AND AFFILIATE

Notes to Consolidated Financial Statements—(Continued)

(Unaudited)

The following table summarizes the computation of pro forma basic and diluted net loss per unit attributable to common stockholders for the three months ended March 31, 2018 and 2017.

	For the three months ended March 31,	
	2018	2017
Numerator—Basic and Diluted		
Loss from operations before income taxes	$ (9,498,540)	$ (6,356,926)
Pro forma provisions/(benefit) for income taxes	—	—
Pro forma net loss	$ (9,498,540)	$ (6,356,926)
Denominator—Basic and Diluted		
Weighted average pro forma Common Units outstanding	218,982,140	95,871,587
Weighted average pro forma Common Units issued upon conversion of Series A Preferred Units	70,918,506	70,918,506
Weighted average pro forma Common Units issued upon conversion of Series B Preferred Units	105,186,014	—
Pro forma weighted average number of Common Units	395,086,660	166,790,093
Net loss per Unit, Basic and Diluted	$ (0.02)	$ (0.04)

(12) Convertible Preferred Units and Members' Equity

The Company's operating agreement, as amended and restated in August 2017 and then again in November 2017, permits the issuance of four classes of Units—Series A Preferred Units, Series B Preferred Units, Series B-1 Preferred Units and Common Units. Each member is entitled to one vote for each Unit held and the Units of all classes and series shall vote together as a single class on all matters (on an as converted to Common Unit basis).

The amended and restated operating agreement contains specific provisions for payments in respect of the Series A Preferred Units, the Series B Preferred Units and the Common Units for liquidating and non-liquidating distributions. There are also provisions for payments in respect of the Series A Preferred Units, Series B Preferred Units and Common Units when certain deemed liquidation events occur, which are a merger or consolidation of the Company or sale of all or substantially all of the assets of the Company.

Series A Preferred Units

The Series A Preferred Units are entitled to a preference on distributions, ahead of the Common Units but behind Series B Preferred Units, in the amount of $54,923,430 plus the Series A Preferred Return (as described below), as of March 31, 2018.

The Series A Preferred Units are entitled to a return in an annual non-compounded amount with respect to each outstanding Series A Preferred Unit equal to the product of the Series A Preferred Return Percentage and the Series A Unreturned Capital Value for each Unit, which shall accrue to the extent not paid. The Series A Preferred Return Percentage is 4% and may be reduced to 2% if certain requirements are met as outlined in the amended and restated operating agreement. Additionally, except upon an IPO or a liquidation event, the payment of the Series A Preferred Return is at the sole discretion of the Board

of Managers. As of March 31, 2018, the Series A Preferred Return in arrears aggregated to $8,076,789. Following the 2017 amendments to the operating agreement, the Series A Preferred Return payable upon a public offering of the Company's common stock was fixed at $3,629,092 and is payable, at the Company's election, in cash or shares of the Company's common stock but is expected to be paid in common stock.

The Series A Preferred Units are convertible into Common Units at the option of the holder, or mandatorily upon the occurrence of an initial public offering or other specified events into one Common Unit as outlined in amended and restated operating agreement. In addition, in connection with the Company's Operating Agreement the Company has the ability to reserve a sufficient number of Common Units to enable the conversion of all Series A Preferred Units.

The Series A Preferred Units also have other protective provisions that prohibit the Company from taking certain actions as outlined in the amended and restated operating agreement without the prior written consent of the holders of not less than 66% of the total outstanding Series A Preferred Units, which consent, subject to certain exceptions, must include the consent of Core Ventures II, LLC (CV II) and Merck Global Health Innovation Fund, LLC (Merck GHI).

The Series A Preferred Units also have other protective provisions that prohibit the Company from taking certain actions as outlined in the amended and restated operating agreement without the prior written consent of the holders of not less than 66% of the total outstanding Series A Preferred Units, which consent, subject to certain exceptions, must include the consent of Core Ventures II, LLC (CBII) and Merck Global Health Innovation Fund, LLC (Merck GHL).

As of March 31, 2018, warrants issued in connection with Series A Preferred Units financing rounds have either been exercised or have expired and no new warrants related to Series A Preferred Units were issued in 2018.

As of March 31, 2018, warrants to purchase 132,354 Series A Preferred Units issued in connection with the term loans remain outstanding.

Series B Preferred Units

In 2017, the Company entered into a Series B Preferred Unit Purchase Agreement with, among others, CV II, Merck GHI and AIH. Under the terms of the Purchase Agreement, as amended, through December 31, 2017, the Company received cash proceeds of $46,911,300 and converted $26,718,910 of Bridge Notes and related accrued and unpaid interest for an aggregate amount of $73,630,210 (inclusive of amounts mentioned in Note 13 related to conversion of Bridge Notes and related accrued and unpaid interest) through the sale of Series B Preferred Units at an initial closing and several additional closings.

The Series B Preferred Units are entitled to a preference on distributions ahead of the Series A Preferred Units and the Common Units, in the amount of $73,630,210 as of March 31, 2018 and December 31, 2017.

The Series B Preferred Units are convertible into Common Units at the option of the holder, or mandatorily upon the occurrence of an initial public offering or other specified event, into one common unit as outlined in the amended and restated operating agreement. In addition, in connection with the Company's Operating Agreement the Company has the ability to reserve a sufficient number of Common Units to enable the conversion of all Series B Preferred Units.

ELECTROCORE, LLC, SUBSIDIARIES AND AFFILIATE

Notes to Consolidated Financial Statements—(Continued)

(Unaudited)

The Series B Preferred Units also have other protective provisions that prohibit the Company from taking certain actions as outlined in the amended and restated operating agreement without the prior written consent of the holders of not less than 66% of the total outstanding Series B Preferred Units, which consent, subject to certain exceptions, must include the consent of CV II, Merck GHI and American Investment Holdings LLC (AIH).

In connection with these Series B Preferred Unit closings, the Company also issued 18,340,000 common units to investors at a relative fair value of $4,074,447.

In connection with all Series B Preferred Unit closings, the Company also issued warrants for the purchase of 35,452,084 Common Units at an exercise price of $1.25 per Unit, which warrants expire on the earlier of 5 years from issuance and the closing of the Company's IPO. The Company also issued warrants to advisors for the purchase of 2,724,549 Common Units at an exercise price of $0.70 per Unit and 72,000 common warrants at $1.25 per Unit. The fair value of these warrants to purchase common units are recorded within additional-paid-in-capital.

As of March 31, 2018 and December 31, 2017, there were warrants to purchase (i) 7,739,092 Series B Preferred Units at $0.70 per unit outstanding that were issued to purchasers of our Bridge Notes (see Note 13) and (ii) 1,820,134 Series B Preferred Units at $0.70 per unit that were issued to our financial advisors.

(13) Convertible Bridge Notes

For the three months ended March 31, 2017, the Company issued Bridge Notes aggregating $4,545,141 including warrant coverage.

Since the Bridge Note Warrants entitle the holders to purchase securities in the Qualified Equity Round at the purchase price payable for the related equity securities, the exercise price of the warrants was undetermined at the time of their issuance. Also, because the terms of redemption of the Series B Preferred Units were unknown at the time of their issuance as well as the deemed liquidation terms discussed in Note 12, the warrants are recorded as liabilities. In connection with the Bridge Note closings, at the time of the Qualified Equity Round, the Company issued 7,739,092 Bridge Note Warrants all of which are outstanding as of March 31, 2018.

As of December 31, 2017, all Bridge Notes were converted to Series B Preferred Units.

(14) Unit-Based Compensation

In connection with employment and service provider agreements the Company has awarded grantees Units that constitute profits interests for income tax purposes, subject to certain restrictions defined in each Unit forfeiture agreement. The Company maintains a Unit award account for each of the grantees. Generally, the Units vest 25% on the one year anniversary of the employment start date or agreement date and the balance ratably per quarter thereafter over an additional three-year period. After the restrictions lapse, the grantees become fully vested in such Units.

ELECTROCORE, LLC, SUBSIDIARIES AND AFFILIATE

Notes to Consolidated Financial Statements—(Continued)

(Unaudited)

The following summarizes activity related to the Company's unvested Unit awards for the period ended March 31, 2018:

	Number of units	Weighted average grant date fair value
Outstanding Balance as of January 1, 2018	22,635,723	$ 0.04
Granted	19,112,218	$ 0.14
Vested	(3,328,229)	$ 0.08
Forfeited	(83,479)	$ 0.08
Outstanding Balance as of March 31, 2018	38,336,233	$ 0.08

As of March 31, 2018 there were $3,325,777 of total unrecognized compensation cost related to unvested Unit-based compensation awards respectively, which are expected to be recognized over a weighted average period of four years.

The Company utilizes the Black Scholes option pricing model for estimating the fair value of all Units granted. The fair value of each Unit is estimated on the date of the grant. The fair value is then amortized using graded-vesting over the requisite service period for each separately vesting portion of the award as if the award was, in-substance, multiple awards.

The weighted average assumptions for the Units granted during the three months ended March 31, 2018 and 2017 are provided in the following table:

	For the three months ended March 31,	
	2018	2017
Valuation assumptions:		
Expected dividend yield	0%	0%
Expected volatility	65.34%	82.60%
Expected term (years)	0.65	2.29
Risk-free interest rate	1.53%	0.77%

The risk-free interest rate is the average U.S. Treasury rate with a term that most closely resembles the expected life of the award for the year in which the award was granted. The expected life is the period of time that the awards granted are expected to remain outstanding, which takes into account potential future liquidity events. Expected volatility is a measure of the amount by which the Unit price has fluctuated or is expected to fluctuate during a period. For volatility, the Company uses comparable public companies as a basis for its expected volatility. The Company does not pay regular dividends on its Units and does not anticipate paying any dividends in the foreseeable future.

For the three months ended March 31, 2018 and 2017, Unit-based compensation expense is reported as a component of selling, general and administrative and research and development expense in the Company's consolidated statement of operations.

ELECTROCORE, LLC, SUBSIDIARIES AND AFFILIATE

Notes to Consolidated Financial Statements—(Continued)

(Unaudited)

(15) Variable Interest Entity

As discussed in note 1, electroCore is the primary beneficiary of electroCore (Aust) Pty Limited. electroCore has contributed certain intellectual property rights, all rights to distribute, market and sell specified products in Australia and New Zealand, and other rights outlined in the shareholders' deed of electroCore (Aust) Pty Limited in return for 50% of the shares of such entity. In addition, electroCore can also appoint two of the four directors and can exercise significant influence. This along with the fact that electroCore is electroCore (Aust) Pty Limited's only supplier causes electroCore, for accounting purposes, to be the primary beneficiary of electroCore (Aust) Pty Limited. The activities related to electroCore (Aust) Pty Limited are not material to the consolidated financial statements.

(16) Commitments and Contingencies

(a) Operating Lease

The Company leases office space under operating leases through April 2022. For the three months ended March 31, 2018 and 2017, rental expense related to the leases for each period was $122,818.

(b) Legal Proceedings

The Company may from time to time be involved in various claims and legal actions arising in the ordinary course of its business. In the opinion of management, the ultimate disposition of any of these matters will not have a material adverse effect on the Company's consolidated financial position, results of operations, or liquidity.

(17) Subsequent Events

In May 2018, a former financial advisor to the company filed a complaint against the Company seeking additional compensation in connection with the Company's 2017 Series B Preferred Unit financing (see note 12). The Company believes that it has substantial legal and factual defenses to the claims in such lawsuit and intends to vigorously defend the case. Based on our best estimate of this matter, we have established a legal reserve relative to this matter. The Company does not believe resolution of this matter would have a material adverse effect on its financial position or operations.

Through and including , 2018 (the 25th day after the date of this prospectus), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This delivery requirement is in addition to a dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to an unsold allotment or subscription.

Shares

Common Stock

PROSPECTUS

Piper Jaffray

Evercore ISI

JMP Securities

, 2018

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution.

The following table sets forth the costs and expenses, other than the underwriting discounts and commissions, payable by the registrant in connection with the sale of common stock being registered. All amounts are estimates except for the Securities and Exchange Commission, or SEC, registration fee, the FINRA filing fee and The Nasdaq Global Select Market listing fee.

Item	Amount to be paid
SEC registration fee	$ 9,306.38
FINRA filing fee	$11,712.50
The Nasdaq Global Select Market Listing fee	$
Printing and engraving expenses	*
Legal fees and expenses	*
Accounting fees and expenses	*
Blue Sky, qualification fees and expenses	*
Transfer Agent fees and expenses	*
Miscellaneous expenses	*
Total	$ *

* To be provided by amendment

Item 14. Indemnification of Directors and Officers.

Prior to the closing of this offering, Electrocore, LLC intends to convert into a Delaware corporation pursuant to a statutory conversion and change its name to electroCore, Inc. As permitted by Section 102 of the Delaware General Corporation Law, our certificate of incorporation and bylaws to be effective upon the corporate conversion will contain provisions that limit or eliminate the personal liability of our directors for a breach of their fiduciary duty of care as a director. The duty of care generally requires that, when acting on behalf of the corporation, directors exercise an informed business judgment based on all material information reasonably available to them. Consequently, a director will not be personally liable to us or our stockholders for monetary damages for breach of fiduciary duty as a director, except for liability for:

- any breach of the director's duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- any act related to unlawful stock repurchases, redemptions or other distributions or payment of dividends; or
- any transaction from which the director derived an improper personal benefit.

These limitations of liability do not affect the availability of equitable remedies such as injunctive relief or rescission. Our certificate of incorporation will also authorize us to indemnify our officers, directors and other agents to the fullest extent permitted under Delaware law.

As permitted by Section 145 of the Delaware General Corporation Law, our bylaws will provide that:

- we may indemnify our directors, officers, and employees to the fullest extent permitted by the Delaware General Corporation Law, subject to limited exceptions;

- we may advance expenses to our directors, officers and employees in connection with a legal proceeding to the fullest extent permitted by the Delaware General Corporation Law, subject to limited exceptions; and
- the rights provided in our bylaws are not exclusive.

Our certificate of incorporation to be in effect upon the corporate conversion, attached as Exhibit 3.1 hereto, and our bylaws to be in effect upon the corporate conversion, attached as Exhibit 3.2 hereto, provide for the indemnification provisions described above and elsewhere herein. We intend to enter into separate indemnification agreements with our directors and officers which may be broader than the specific indemnification provisions contained in the Delaware General Corporation Law. These indemnification agreements will generally require us, among other things, to indemnify our officers and directors against liabilities that may arise by reason of their status or service as directors or officers, other than liabilities arising from willful misconduct. These indemnification agreements will also generally require us to advance any expenses incurred by the directors or officers as a result of any proceeding against them as to which they could be indemnified. In addition, we have purchased a policy of directors' and officers' liability insurance that insures our directors and officers against the cost of defense, settlement or payment of a judgment in some circumstances. These indemnification provisions and the indemnification agreements may be sufficiently broad to permit indemnification of our officers and directors for liabilities, including reimbursement of expenses incurred, arising under the Securities Act of 1933, as amended, or the Securities Act.

The form of Underwriting Agreement, attached as Exhibit 1.1 hereto, provides for indemnification by the underwriters of us and our officers who sign this Registration Statement and directors for specified liabilities, including matters arising under the Securities Act.

Item 15. Recent Sales of Unregistered Securities.

The following sets forth information regarding all unregistered securities sold by us since January 1, 2015 through the date of the prospectus that forms a part of this registration statement.

- From January 2015 through March 2016, we issued Series A Preferred Units for aggregate consideration of $13.8 million. In connection with such transactions, we issued 16.3 million Series A Preferred Units.
- In November 2015, we issued 2.3 million Series A Preferred Units to existing investors at a purchase price of approximately $0.74 per unit, for aggregate consideration of approximately $1.7 million, in connection with the exercise of warrants to purchase our Series A Preferred Units.
- In December 2015, we issued 66,177 warrants to purchase Series A Preferred Units to Core Ventures II, LLC, in connection a Loan and Security Agreement, pursuant to which we borrowed $1.25 million.
- In December 2015, we issued 66,177 warrants to purchase Series A Preferred Units to Pacific Western Bank, in connection with a Loan and Security Agreement, pursuant to which we borrowed $1.25 million.
- In March 2016, we issued 2.3 million Series A Preferred Units at a purchase price of approximately $0.74 per unit, for aggregate consideration of approximately $1.7 million, in connection with the exercise of warrants to purchase Series A Preferred Units.
- From June 2016 through August 2016, we issued convertible promissory notes of $1.5 million. We issued 1.8 million Series A Preferred Units when such notes converted in September 2016.
- In September 2016, we issued 1.5 million Series A Preferred Units upon conversion of $1.3 million of a term loan by Core Ventures II, LLC.

- From September 2016 through June 2017, we issued Series B convertible promissory notes for aggregate consideration of $25.6 million. In connection with such transactions, we issued to such investors an aggregate of 41.9 million Common Units and warrants to purchase 7.31 million Series B Preferred Units, including to existing investors and investors affiliated with our board of directors. In addition, in connection with such transactions we issued 5.4 million Common Units, warrants to purchase 487,836 Series B Preferred Units and warrants to purchase 1,201,609 Common Units to our financial advisors, investors affiliated with members of our board of directors, and our placement agents.
- In July 2017, we issued 18.34 million Common Units to existing investors who committed to invest $9.17 million into our Series B financing.
- From August 2017 through December 2017, we issued Series B Preferred Units for aggregate consideration of $73.6 million. In connection with such transactions, we issued 105.2 million Series B Preferred Units, and warrants to purchase 35.45 million Common Units, including to existing investors, those affiliated with members of our board of directors and our placement agents.
- Since January 1, 2015, we have granted, net of forfeitures, 52.1 million Profits Interests to employees, consultants and certain members of our board of directors.

We claimed exemption from registration under the Securities Act for the sales and issuances of securities in the transactions described above under Section 4(a)(2) of the Securities Act and/or Regulation D promulgated thereunder, in that such sales and issuances did not involve a public offering, or under Rule 701 promulgated under the Securities Act, in that they were offered and sold either pursuant to written compensatory plans or pursuant to a written contract relating to compensation, as provided by Rule 701. All of the purchasers of unregistered securities for which we relied on Section 4(a)(2) and/or Regulation D represented that they were accredited investors as defined under the Securities Act.

Item 16. Exhibits and Financial Statement Schedules.

(a) Exhibits.

EXHIBIT INDEX

Exhibit No.	
1.1**	Form of Underwriting Agreement
2.1**	Form of Plan of Conversion
3.1*	Form of Certificate of Incorporation of electroCore, Inc. (to be effective upon completion of the Registrant's conversion from a limited liability company to a corporation)
3.2*	Form of Bylaws of electroCore, Inc. (to be effective upon completion of the Registrant's conversion from a limited liability company to a corporation)
3.3*	Second Amended and Restated Limited Liability Company Agreement, dated as of August 18, 2017, by and among ElectroCore, LLC and the members party thereto
3.4*	Third Amended and Restated Limited Liability Company Agreement, dated as of November 21, 2017, by and among ElectroCore, LLC and the members party thereto
5.1**	Opinion of Dentons US LLP
10.1*	Investors' Rights Agreement, dated as of March 28, 2013, by and among ElectroCore, LLC and the investors party thereto
10.2*	Amended and Restated Investors' Rights Agreement, dated as of August 18, 2017, by and among Electrocore, LLC and the investors party thereto
10.3*†	Form of ElectroCore, LLC Unit Forfeiture Agreement
10.4*†	electroCore, Inc. 2018 Omnibus Equity Incentive Plan
10.5*†	Form of Employee Incentive Stock Option Agreement for electroCore, Inc. 2018 Omnibus Equity Incentive Plan
10.6*†	Form of Non-qualified Stock Option Agreement for electroCore, Inc. 2018 Omnibus Equity Incentive Plan
10.7*†	Form of Employee Restricted Stock Award Agreement for electroCore, Inc. 2018 Omnibus Equity Incentive Plan
10.8*†	Form of Non-Employee Director Inaugural Deferred Stock Unit Award Agreement for electroCore, Inc. 2018 Omnibus Equity Incentive Plan
10.9*†	Form of Non-Employee Director Inaugural Non-qualified Stock Option Agreement for electroCore, Inc. 2018 Omnibus Equity Incentive Plan
10.10*†	Form of Non-Employee Director Inaugural Restricted Stock Unit Agreement for electroCore, Inc. 2018 Omnibus Equity Incentive Plan
10.11*†	Form of Non-Employee Director Annual Deferred Stock Unit Award Agreement for electroCore, Inc. 2018 Omnibus Equity Incentive Plan
10.12*†	Form of Non-Employee Director Annual Non-qualified Stock Option Agreement for electroCore, Inc. 2018 Omnibus Equity Incentive Plan
10.13*†	Form of Non-Employee Director Annual Restricted Stock Unit Agreement for electroCore, Inc. 2018 Omnibus Equity Incentive Plan
10.14*†	Form of Indemnification Agreement between the Registrant and each of its executive officers and directors
10.15*†	Form of electroCore, Inc. Management Severance Plan (to be effective upon completion of Registrant's conversion from a limited liability company to a corporation)
10.16*†	Form of electroCore, Inc. Non-Employee Director Compensation Policy (to be effective upon completion of Registrant's conversion from a limited liability company to a corporation)
10.17*†	Employment Offer Letter, dated as of July 18, 2016, by and between ElectroCore, LLC and Francis R. Amato

Exhibit No.	
10.18*†	Employment Offer Letter, dated as of July 18, 2016, by and between ElectroCore, LLC and Joseph P. Errico
10.19*†	Employment Offer Letter, dated as of May 1, 2017, by and between ElectroCore, LLC and Peter S. Staats
10.20*†	Employment Offer Letter, dated as of July 25, 2016, by and between ElectroCore, LLC and Glenn S. Vraniak
10.21*	Office Lease between 150 Allen Road, LLC and Electrocore, LLC
10.22*	Form of Common Unit Warrant
10.23*	Form of Series A Warrant
10.24*	Form of Bridge Warrant
10.25*	Master Services Agreement dated October 17, 2016 between ElectroCore, LLC and Asembia LLC
21.1*	List of subsidiaries of Electrocore, LLC
23.1**	Consent of Dentons US LLP (included as part of Exhibit 5.1)
23.2*	Consent of KPMG LLP, independent registered public accounting firm
24.1*	Powers of Attorney (included on signature pages)
99.1*	Consent of Michael G. Atieh
99.2*	Consent of Stephen L. Ondra, M.D.

* Filed herewith.
** To be filed by amendment.
† Indicates management agreement.

(b) Financial Statement Schedules. Schedules not listed above have been omitted because the information required to be set forth therein is not applicable or is shown in the financial statements or notes thereto.

Item 17. Undertakings.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act, and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer, or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question of whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned Registrant hereby undertakes that:

1. For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this Registration Statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this Registration Statement as of the time it was declared effective.

2. For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

The undersigned Registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreement certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Basking Ridge, State of New Jersey, on this 21st day of May 2018.

ELECTROCORE, LLC

By /s/ Francis R. Amato
Francis R. Amato
Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Francis R. Amato and Glenn S. Vraniak, and each of them, as his true and lawful attorneys-in-fact, proxies and agents, each with full power of substitution, for him in any and all capacities, to sign any and all amendments to this registration statement (including post-effective amendments or any abbreviated registration statement and any amendments thereto filed pursuant to Rule 462(b) increasing the number of securities for which registration is sought), and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact, proxies and agents full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully for all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact, proxies and agents, or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Francis R. Amato Francis R. Amato	Chief Executive Officer and Director *(Principal Executive Officer)*	May 21, 2018
/s/ Glenn S. Vraniak Glenn S. Vraniak	Chief Financial Officer *(Principal Financial and Accounting Officer)*	May 21, 2018
/s/ Joseph P. Errico Joseph P. Errico	Chairman of the Board	May 21, 2018
/s/ Nicholas Colucci Nicholas Colucci	Director	May 21, 2018
/s/ Thomas J. Errico, M.D. Thomas J. Errico, M.D.	Director	May 21, 2018
/s/ Trevor J. Moody Trevor J. Moody	Director	May 21, 2018

Signature	Title	Date
/s/ Michael W. Ross Michael W. Ross	Director	May 21, 2018
/s/ Dr. David M. Rubin Dr. David M. Rubin	Director	May 21, 2018
/s/ James L.L. Tullis James L.L. Tullis	Director	May 21, 2018

Exhibit 3.1

CERTIFICATE OF INCORPORATION
OF
ELECTROCORE, INC.

Article I.
Name

The name of the corporation is electroCore, Inc. (the "**Corporation**").

Article II.
Registered Office and Agent

The address of the registered office of the Corporation in the State of Delaware is 2711 Centerville Road, Suite 400, City of Wilmington, County of New Castle 19808, and the name of the registered agent of the Corporation in the State of Delaware at such address is Corporation Service Company.

Article III.
Purpose

The purpose of the Corporation is to engage in any lawful act or activity for which a corporation may be organized under the General Corporation Law of the State of Delaware ("***DGCL***").

Article IV.
Capital Stock

A. Authorized Capital Stock. The Corporation is authorized to issue two classes of capital stock to be designated, respectively, "***Common Stock***" and "***Preferred Stock***." The total number of shares of capital stock which the Corporation is authorized to issue is Five Hundred Ten Million (510,000,000) shares. Five Hundred Million (500,000,000) shares shall be Common Stock, each having a par value of one-tenth of one cent ($0.001). Ten Million (10,000,000) shares shall be Preferred Stock, each having a par value of one-tenth of one cent ($0.001).

B. Preferred Stock. The Preferred Stock may be issued from time to time in one or more series. The Board of Directors of the Corporation (the "***Board of Directors***") is hereby expressly authorized to provide for the issue of all or any of the shares of the Preferred Stock in one or more series, and to fix the number of shares and to determine or alter for each such series, such voting powers, if any, and such designation, preferences, and relative, participating, optional, or other rights and such qualifications, limitations, or restrictions thereof, as shall be stated and expressed in the resolution or resolutions adopted by the Board of Directors providing for the issuance of such shares and as may be permitted by the DGCL. The Board of Directors is also expressly authorized to increase or decrease the number of shares of any series subsequent to the issuance of shares of that series, but not below the number of shares of such series then outstanding. In case the number of shares of any series shall be decreased in accordance with the foregoing sentence, the shares constituting such decrease shall resume the status that they had prior to the adoption of the resolution originally fixing the number of shares of such series. The number of authorized shares of Preferred Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of a majority of the voting power of the capital stock of the Corporation entitled to vote thereon, without a separate vote of the holders of the Preferred Stock, or of any series thereof, unless a vote of any such holders is required pursuant to the terms of any certificate of designation filed with respect to any series of Preferred Stock.

C. Common Stock.

1. Voting. Each outstanding share of Common Stock shall entitle the holder thereof to one vote on each matter properly submitted to the stockholders of the Corporation for their vote; *provided*, *however*, that, except as otherwise required by law, holders of Common Stock shall not be entitled to vote on any amendment to this Certificate of Incorporation (including any certificate of designation filed with respect to any series of Preferred Stock) that relates solely to the terms of one or more outstanding series of Preferred Stock if the holders of such affected series are entitled, either separately or together as a class with the holders of one or more other such series, to vote thereon by law or pursuant to this Certificate of Incorporation (including any certificate of designation filed with respect to any series of Preferred Stock). There shall be no cumulative voting.

2. Dividends. Subject to the preferential rights of the Preferred Stock, the holders of the Common Stock are entitled to receive, to the extent permitted by law, such dividends as may be declared from time to time by the Board of Directors.

3. No Preemptive Rights. The holders of Common Stock shall have no preemptive rights to subscribe for any shares of any class of capital stock of the Corporation whether now or hereafter authorized.

4. No Conversion Rights. Common Stock shall not be convertible into, or exchangeable for, shares of any other class or classes or of any other series of the same class of the Corporation's capital stock.

5. Liquidation Rights. In the event of the voluntary or involuntary liquidation, dissolution, distribution of assets or winding up of the Corporation, after distribution in full of the preferential amounts, if any, to be distributed to the holders of shares of Preferred Stock, holders of Common Stock shall be entitled to receive all of the remaining assets of the Corporation of whatever kind available for distribution to stockholders ratably in proportion to the number of shares of Common Stock held by them respectively. The Board of Directors may distribute in kind to the holders of Common Stock such remaining assets of the Corporation or may sell, transfer or otherwise dispose of all or any part of such remaining assets to any other corporation, trust or other entity and receive payment therefor in cash, stock or obligations of such other corporation, trust or other entity, or any combination thereof, and may sell all or any part of the consideration so received and distribute any balance thereof in kind to holders of Common Stock. The merger or consolidation of the Corporation into or with any other corporation, or the merger of any other corporation into it, or any purchase or redemption of shares of capital stock of the Corporation of any class, shall not be deemed to be a dissolution, liquidation or winding up of the Corporation for the purposes of this paragraph.

Article V.
Board of Directors

For the management of the business and for the conduct of the affairs of the Corporation, and in further definition, limitation and regulation of the powers of the Corporation, of its directors and of its stockholders or any class thereof, as the case may be, it is further provided that:

A. General Powers. The management of the business and the conduct of the affairs of the Corporation shall be vested in its Board of Directors.

B. Number of Directors; Election of Directors. The number of directors constituting the Board of Directors shall be fixed, from time to time, exclusively by resolutions adopted by the Board of Directors. The directors of the Corporation need not be elected by written ballot unless the Bylaws of the Corporation so provide.

C. Classes of Directors; Terms of Office. Effective immediately following the closing of the initial public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, covering the offer and sale of the Corporation's Common Stock to the public (the "**Initial Public Offering**") the directors shall be divided into three classes as nearly equal in number as practicable, hereby designated as Class I, Class II and Class III, respectively. The Board of Directors is authorized to assign members of the Board of Directors already in office to such classes at the time the initial classification becomes effective. The term of office of the initial Class I directors shall expire upon the election of directors at the first annual meeting of stockholders following the closing of the Initial Public Offering; the term of office of the initial Class II directors shall expire upon the election of directors at the second annual meeting of stockholders following the closing of the Initial Public Offering; and the term of office of the initial Class III directors shall expire upon the election of directors at the third annual meeting of stockholders following the closing of the Initial Public Offering. At each annual meeting of stockholders, commencing with the first annual meeting of stockholders following the closing of the Initial Public Offering, each of the successors elected to replace the directors of a class whose term shall have expired at such annual meeting shall be elected to hold office until the third annual meeting of stockholders next succeeding his or her election and until his or her respective successor shall have been duly elected and qualified. Subject to the rights of holders of any outstanding series of Preferred Stock with respect to the election of directors, if the number of directors that constitutes the Board of Directors is changed, any newly created directorships or decrease in directorships shall be so apportioned by the Board of Directors among the classes as to make all classes as nearly equal in number as is practicable, provided that no decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director. Notwithstanding the foregoing provisions of this paragraph, and subject to the rights of holders of any series of Preferred Stock with respect to the election of directors, each director shall serve until such director's successor is duly elected and qualified or until such director's earlier death, resignation or removal.

D. Removal. Subject to the rights of any series of Preferred Stock to elect additional directors under specified circumstances, neither the Board of Directors nor any individual director may be removed without cause. Subject to any limitation imposed by law, any individual director or directors may be removed with cause by the affirmative vote of the holders of at least sixty-six and two-thirds percent (66 ⅔%) of the voting power of all then-outstanding shares of capital stock of the Corporation entitled to vote generally at an election of directors, voting together as a single class.

E. Vacancies and Newly Created Directorships. Subject to the rights of the holders of any series of Preferred Stock, any vacancies on the Board of Directors resulting from death, resignation, disqualification, removal or other causes and any newly created directorships resulting from any increase in the number of directors, shall, except as otherwise provided by law, be filled only by the affirmative vote of a majority of the directors then in office, even though less than a quorum of the Board of Directors, or by a sole remaining director, and not by the stockholders, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by the stockholders. Any director elected in accordance with the preceding sentence shall hold office for the remainder of the full term of the director for which the vacancy was created or occurred and until such director's successor shall have been elected and qualified.

Article VI.
Amendment of Bylaws

The Board of Directors is expressly empowered to adopt, amend or repeal the Bylaws of the Corporation. Any adoption, amendment or repeal of the Bylaws of the Corporation by the Board of Directors shall require the approval of a majority of the authorized number of directors. The stockholders shall also have power to adopt,

amend or repeal the Bylaws of the Corporation; *provided, however*, that, in addition to any vote of the holders of any class or series of stock of the Corporation required by law or by this Certificate of Incorporation, such action by stockholders shall require the affirmative vote of the holders of at least sixty-six and two-thirds percent (66 ⅔%) of the voting power of all of the then-outstanding shares of the capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class, *provided, further*, that if the Board of Directors recommends that stockholders approve such adoption, amendment or repeal at a meeting of stockholders, such adoption, amendment or repeal shall only require the affirmative vote of the majority of the outstanding shares entitled to vote on such amendment or repeal, voting together as a single class.

Article VII.
Stockholder Actions

A. No Stockholder Action without Meeting. No action shall be taken by the stockholders of the Corporation except at an annual or special meeting of stockholders called in accordance with the Bylaws of the Corporation, and no action shall be taken by the stockholders by written consent or electronic transmission.

B. Stockholder Nominations and Introduction of Business, Etc. Advance notice of stockholder nominations for the election of directors and of other business to be brought by stockholders before any meeting of the stockholders of the Corporation shall be given in the manner provided in the Bylaws of the Corporation. Only those matters set forth in the notice of the special meeting may be considered or acted upon at a special meeting of stockholders of the Corporation.

C. Special Meetings. Except as otherwise required by statute and subject to the rights, if any, of the holders of any series of Preferred Stock, special meetings of the stockholders of the Corporation may be called only by the Board of Directors acting pursuant to a resolution approved by the affirmative vote of a majority of the directors then in office, the Chief Executive Officer (of if there is no Chief Executive Officer, the President) or the Chairperson of the Board of Directors, and may not be called by any other person or persons.

Article VIII.
Limitation on Director Liability; Indemnification

A. The liability of the directors for monetary damages shall be eliminated to the fullest extent under applicable law. If the DGCL is amended to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Corporation shall be eliminated to the fullest extent permitted by the DGCL, as so amended.

B. In furtherance and not in limitation of the rights, powers, privileges, and discretionary authority granted or conferred by Title 8 of the DGCL or other statutes or laws of the State of Delaware, the Board of Directors is expressly authorized to provide indemnification of (and advancement of expenses to) directors, officers, employees, and agents of the Corporation (and any other persons to which applicable law permits the Corporation to provide indemnification) to the fullest extent permitted by law through bylaw provisions, agreements with indemnitees, vote of stockholders or disinterested directors or otherwise.

C. Any repeal, amendment or modification of this Article VIII shall be prospective and shall not affect the rights under this Article VIII in effect at the time of the alleged occurrence of any act or omission to act giving rise to liability or indemnification.

Article IX.
Choice of Forum

Unless the Corporation consents in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware will (or, if and only if the Court of Chancery of the State of Delaware lacks subject matter jurisdiction, any state court located within the State of Delaware or, if and only if all such state courts lack subject matter jurisdiction, the federal district court for the District of Delaware), to the fullest extent permitted by law, be the sole and exclusive forum for (1) any derivative action or proceeding brought on behalf of the Corporation, (2) any action asserting a claim of breach of a fiduciary duty owed by, or other wrongdoing by, any director, officer, employee or agent of the Corporation to the Corporation or the Corporation's stockholders, (3) any action asserting a claim arising pursuant to any provision of the DGCL or this Certificate of Incorporation or the Bylaws of the Corporation, (4) any action to interpret, apply, enforce or determine the validity of this Certificate of Incorporation or the Bylaws of the Corporation, or (5) any action asserting a claim governed by the internal affairs doctrine, in each such case subject to said Court of Chancery having personal jurisdiction over the indispensable parties named as defendants therein. Any person or entity purchasing or otherwise acquiring any interest in shares of capital stock of the Corporation will be deemed to have notice of and consented to the provisions of this Article IX.

Unless the Corporation consents in writing to the selection of an alternative forum, the federal district courts of the United States of America shall be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act of 1933. Any person or entity purchasing or otherwise acquiring any interest in any security of the Corporation shall be deemed to have notice of and consented to the provisions of this Certificate of Incorporation.

Article X.
Incorporator

The incorporator of the Corporation is [Francis R. Amato], whose mailing address is c/o electroCore, Inc., 150 Allen Road, Suite 201, Basking Ridge, New Jersey 07920.

Article XI.
[Initial Board of Directors

The powers of the incorporator are to terminate upon the filing of this Certificate of Incorporation with the Secretary of State of the State of Delaware. The names of the persons who are to serve as the initial directors of the Corporation until the first annual meeting of stockholders of the Corporation, or until their successors are duly elected and qualified, are:

[Insert List of Initial Directors]

The mailing address of each such director is: c/o electroCore, Inc., 150 Allen Road, Suite 201, Basking Ridge, New Jersey 07920.]

Article XII.
Amendment of Certificate of Incorporation

A. The Corporation reserves the right to amend, alter, change or repeal any provision contained in this Certificate of Incorporation, in the manner now or hereafter prescribed by statute, except as provided in paragraph B. of this Article [XII], and all rights conferred upon the stockholders herein are granted subject to this reservation.

B. Notwithstanding any other provisions of this Certificate of Incorporation or any provision of law that might otherwise permit a lesser vote or no vote, but in addition to any affirmative vote of the holders of any particular class or series of the Corporation required by law or by this Certificate of Incorporation or any certificate of designation filed with respect to a series of Preferred Stock, the affirmative vote of the holders of at least sixty-six and two-thirds percent (66 ⅔%) of the voting power of all of the then-outstanding shares of capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class, shall be required to alter, amend or repeal Articles V, VI, VII, VIII, IX and XII.

I, The Undersigned, for the purpose of forming a corporation under the laws of the State of Delaware, do make, file and record this Certificate of Incorporation, and do certify that the facts herein stated are true, and I have accordingly hereunto set my hand this day of [●], 2018.

By: _____

[Francis R. Amato], Incorporator

BYLAWS

OF

ELECTROCORE, INC.
(A DELAWARE CORPORATION)

, 2018

Table of Contents

ELECTROCORE, INC.
BYLAWS

ARTICLE I

OFFICES

Section 1. Registered Office. The registered office shall be established and maintained at the office of The Corporation Service Company, in the City of Wilmington, in the County of New Castle, in the State of Delaware, and said corporation, or other such person or entity as the Board of Directors may from time to time designate, shall be the registered agent of the corporation.

Section 2. Other Offices. The corporation shall also have and maintain an office or principal place of business at such place as may be fixed by the Board of Directors, and may also have offices at such other places, both within and without the State of Delaware as the Board of Directors may from time to time determine or the business of the corporation may require.

ARTICLE II

CORPORATE SEAL

Section 3. Corporate Seal. The Board of Directors may adopt a corporate seal. If adopted, the corporate seal shall consist of a die bearing the name of the corporation and the inscription, "Corporate Seal-Delaware." Said seal may be used by causing it or a facsimile thereof to be impressed or affixed or reproduced or otherwise.

ARTICLE III

STOCKHOLDERS' MEETINGS

Section 4. Place of Meetings. Meetings of the stockholders of the corporation may be held at such place, either within or without the State of Delaware, as may be determined from time to time by the Board of Directors. The Board of Directors may, in its sole discretion, determine that the meeting shall not be held at any place, but may instead be held solely by means of remote communication as provided under the General Corporation Law of the State of Delaware (the "***DGCL***").

Section 5. Annual Meetings.

(a) The annual meeting of the stockholders of the corporation, for the purpose of election of directors and for such other business as may properly come before it, shall be held on such date and at such time as may be designated from time to time by the Board of Directors. Nominations of persons for election to the Board of Directors of the corporation and the proposal of business to be considered by the stockholders may be made at an annual meeting of stockholders: (i) pursuant to the corporation's notice of meeting of stockholders (with respect to business other than nominations); (ii) brought specifically by or at the direction of the Board of Directors; or (iii) by any stockholder of the corporation who was a stockholder of record at the time of giving the stockholder's notice provided for in Section 5(b) below, who is entitled to vote at the meeting and who complied with the notice procedures set forth in this Section 5. For the avoidance of doubt, clause (iii) above shall be the exclusive means for a stockholder to make nominations and submit other business (other than matters properly included in the corporation's notice of meeting of stockholders and proxy statement under Rule 14a-8 under the Securities Exchange Act of 1934, as amended (the "***1934 Act***"), and the rules and regulations thereunder) before an annual meeting of stockholders.

(b) At an annual meeting of the stockholders, only such business shall be conducted as is a proper matter for stockholder action under Delaware law and as shall have been properly brought before the meeting.

(1) For nominations for the election to the Board of Directors to be properly brought before an annual meeting by a stockholder pursuant to clause (iii) of Section 5(a) of these Bylaws, the stockholder must deliver written notice to the Secretary at the principal executive offices of the corporation on a timely basis as set

forth in Section 5(b)(3) and must update and supplement such written notice on a timely basis as set forth in Section 5(c). Such stockholder's notice shall set forth: (A) as to each nominee such stockholder proposes to nominate at the meeting: (1) the name, age, business address and residence address of such nominee, (2) the principal occupation or employment of such nominee, (3) the class and number of shares of each class of capital stock of the corporation which are owned of record and beneficially by such nominee, (4) the date or dates on which such shares were acquired and the investment intent of such acquisition, and (5) such other information concerning such nominee as would be required to be disclosed in a proxy statement soliciting proxies for the election of such nominee as a director in an election contest (even if an election contest is not involved), or that is otherwise required to be disclosed pursuant to Section 14 of the 1934 Act and the rules and regulations promulgated thereunder (including such person's written consent to being named as a nominee and to serving as a director if elected); and (B) the information required by Section 5(b)(4). The corporation may require any proposed nominee to furnish such other information as it may reasonably require to determine the eligibility of such proposed nominee to serve as an independent director of the corporation or that could be material to a reasonable stockholder's understanding of the independence, or lack thereof, of such proposed nominee.

(2) Other than proposals sought to be included in the corporation's proxy materials pursuant to Rule 14a-8 under the 1934 Act, for business other than nominations for the election to the Board of Directors to be properly brought before an annual meeting by a stockholder pursuant to clause (iii) of Section 5(a) of these Bylaws, the stockholder must deliver written notice to the Secretary at the principal executive offices of the corporation on a timely basis as set forth in Section 5(b)(3), and must update and supplement such written notice on a timely basis as set forth in Section 5(c). Such stockholder's notice shall set forth: (A) as to each matter such stockholder proposes to bring before the meeting, a brief description of the business desired to be brought before the meeting, the reasons for conducting such business at the meeting, and any material interest (including any anticipated benefit of such business to any Proponent (as defined below) other than solely as a result of its ownership of the corporation's capital stock, that is material to any Proponent individually, or to the Proponents in the aggregate) in such business of any Proponent; and (B) the information required by Section 5(b)(4).

(3) To be timely, the written notice required by Section 5(b)(1) or 5(b)(2) must be received by the Secretary at the principal executive offices of the corporation not later than the close of business on the ninetieth (90th) day nor earlier than the close of business on the one hundred twentieth (120th) day prior to the first anniversary of the preceding year's annual meeting; *provided*, *however*, that, subject to the last sentence of this Section 5(b)(3), in the event that no annual meeting was held during the preceding year or the date of the annual meeting is advanced more than thirty (30) days prior to or delayed by more than thirty (30) days after the anniversary of the preceding year's annual meeting, notice by the stockholder to be timely must be so received not earlier than the close of business on the one hundred twentieth (120th) day prior to such annual meeting and not later than the close of business on the later of the ninetieth (90th) day prior to such annual meeting or the close of business on the tenth (10th) day following the day on which public announcement of the date of such meeting is first made. In no event shall an adjournment or a postponement of an annual meeting for which notice has been given, or for which the public announcement thereof has been made, commence a new time period (or extend any time period) for the giving of a stockholder's notice as described above.

(4) The written notice required by Section 5(b)(1) or 5(b)(2) shall also set forth, as of the date of the notice and as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made (each, a "***Proponent***" and collectively, the "***Proponents***"): (A) the name and address of each Proponent, as they appear on the corporation's books; (B) the class, series and number of shares of the corporation that are owned beneficially and of record by each Proponent; (C) a description of any agreement, arrangement or understanding (whether oral or in writing) with respect to such nomination or proposal between or among any Proponent and any of its affiliates or associates, and any others (including their names) acting in concert, or otherwise under the agreement, arrangement or understanding, with any of the foregoing; (D) a representation that the Proponents are holders of record or beneficial owners, as the case may be, of shares of the corporation entitled to vote at the meeting and intend to appear in person or by proxy at the meeting to nominate the person or persons specified in the notice (with respect to a notice under Section 5(b)(1)) or to propose the business that is specified in the notice (with respect to a notice under Section 5(b)(2)); (E) a representation as to whether the Proponents intend to deliver a proxy statement and form of proxy to holders of a sufficient number of the corporation's voting shares to elect such nominee or nominees (with respect to a notice under Section 5(b)(1)) or to carry such proposal (with respect to a notice under Section 5(b)(2)); (F) to the extent known by any Proponent, the name and address of any other stockholder supporting the proposal on the date of such stockholder's notice; and (G)

a description of all Derivative Transactions (as defined below) by each Proponent during the previous twelve (12) month period, including the date of the transactions and the class, series and number of securities involved in, and the material economic terms of, such Derivative Transactions.

(c) A stockholder providing written notice required by Section 5(b)(1) or 5(b)(2) shall update and supplement such notice in writing, if necessary, so that the information provided or required to be provided in such notice is true and correct in all material respects as of (i) the record date for the meeting and (ii) the date that is five (5) business days prior to the meeting and, in the event of any adjournment or postponement thereof, five (5) business days prior to such adjourned or postponed meeting. In the case of an update and supplement pursuant to clause (i) of this Section 5(c), such update and supplement shall be received by the Secretary at the principal executive offices of the corporation not later than five (5) business days after the record date for the meeting. In the case of an update and supplement pursuant to clause (ii) of this Section 5(c), such update and supplement shall be received by the Secretary at the principal executive offices of the corporation not later than two (2) business days prior to the date for the meeting, and, in the event of any adjournment or postponement thereof, two (2) business days prior to such adjourned or postponed meeting.

(d) Notwithstanding anything in Section 5(b)(3) to the contrary, in the event that the number of directors in an Expiring Class (as defined below) is increased and there is no public announcement of the appointment of a director to such class, or, if no appointment was made, of the vacancy in such class, made by the corporation at least ten (10) days before the last day a stockholder may deliver a notice of nomination in accordance with Section 5(b)(3), a stockholder's notice required by this Section 5 and which complies with the requirements in Section 5(b)(1), other than the timing requirements in Section 5(b)(3), shall also be considered timely, but only with respect to nominees for any new positions in such Expiring Class created by such increase, if it shall be received by the Secretary at the principal executive offices of the corporation not later than the close of business on the tenth (10th) day following the day on which such public announcement is first made by the corporation. For purposes of this section, an "***Expiring Class***" shall mean a class of directors whose term shall expire at the next annual meeting of stockholders.

(e) A person shall not be eligible for election or re-election as a director unless the person is nominated either in accordance with clause (ii) of Section 5(a), or in accordance with clause (iii) of Section 5(a). Except as otherwise required by law, the chairperson of the meeting shall have the power and duty to determine whether a nomination or any business proposed to be brought before the meeting was made, or proposed, as the case may be, in accordance with the procedures set forth in these Bylaws and, if any proposed nomination or business is not in compliance with these Bylaws, or the Proponent does not act in accordance with the representations in Sections 5(b)(4)(D) and 5(b)(4)(E), to declare that such proposal or nomination shall not be presented for stockholder action at the meeting and shall be disregarded, notwithstanding that proxies in respect of such nominations or such business may have been solicited or received.

(f) Notwithstanding the foregoing provisions of this Section 5, in order to include information with respect to a stockholder proposal in the proxy statement and form of proxy for a stockholders' meeting, a stockholder must also comply with all applicable requirements of the 1934 Act and the rules and regulations thereunder. Nothing in these Bylaws shall be deemed to affect any rights of stockholders to request inclusion of proposals in the corporation's proxy statement pursuant to Rule 14a-8 under the 1934 Act; *provided, however*, that any references in these Bylaws to the 1934 Act or the rules and regulations thereunder are not intended to and shall not limit the requirements applicable to proposals and/or nominations to be considered pursuant to Section 5(a)(iii) of these Bylaws.

(g) For purposes of Sections 5 and 6,

(1) "***affiliates***" and "***associates***" shall have the meanings set forth in Rule 405 under the Securities Act of 1933, as amended (the "***1933 Act***").

(2) "***Derivative Transaction***" means any agreement, arrangement, interest or understanding entered into by, or on behalf or for the benefit of, any Proponent or any of its affiliates or associates, whether record or beneficial:

(w) the value of which is derived in whole or in part from the value of any class or series of shares or other securities of the corporation,

(x) which otherwise provides any direct or indirect opportunity to gain or share in any gain derived from a change in the value of securities of the corporation,

(y) the effect or intent of which is to mitigate loss, manage risk or benefit of security value or price changes, or

(z) which provides the right to vote or increase or decrease the voting power of, such Proponent, or any of its affiliates or associates, with respect to any securities of the corporation,

which agreement, arrangement, interest or understanding may include, without limitation, any option, warrant, debt position, note, bond, convertible security, swap, stock appreciation right, short position, profit interest, hedge, right to dividends, voting agreement, performance-related fee or arrangement to borrow or lend shares (whether or not subject to payment, settlement, exercise or conversion in any such class or series), and any proportionate interest of such Proponent in the securities of the corporation held by any general or limited partnership, or any limited liability company, of which such Proponent is, directly or indirectly, a general partner or managing member.

(3) "***public announcement***" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press, Business Wire, Globe Newswire or comparable national news service or in a document publicly filed by the corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the 1934 Act.

Section 6. Special Meetings.

(a) Special meetings of the stockholders of the corporation may be called, for any purpose as is a proper matter for stockholder action under Delaware law, by (i) the Chairperson of the Board of Directors, (ii) the Chief Executive Officer (or if there is no Chief Executive Officer, the President), or (iii) the Board of Directors pursuant to a resolution approved by the affirmative vote of a majority of the directors then in office, and may not be called by any other person or persons.

(b) The Board of Directors shall determine the time and place, if any, of such special meeting. Upon determination of the time and place, if any, of the meeting, the Secretary shall cause a notice of meeting to be given to the stockholders entitled to vote, in accordance with the provisions of Section 7 of these Bylaws. No business may be transacted at such special meeting otherwise than specified in the notice of meeting.

(c) Nominations of persons for election to the Board of Directors may be made at a special meeting of stockholders at which directors are to be elected (i) by or at the direction of the Board of Directors or (ii) by any stockholder of the corporation who is a stockholder of record at the time of giving notice provided for in this paragraph, who shall be entitled to vote at the meeting and who delivers written notice to the Secretary of the corporation setting forth the information required by Section 5(b)(1). In the event the corporation calls a special meeting of stockholders for the purpose of electing one or more directors to the Board of Directors, any such stockholder of record may nominate a person or persons (as the case may be), for election to such position(s) as specified in the corporation's notice of meeting, if written notice setting forth the information required by Section 5(b)(1) of these Bylaws shall be received by the Secretary at the principal executive offices of the corporation not later than the close of business on the later of the ninetieth (90th) day prior to such meeting or the tenth (10th) day following the day on which public announcement is first made of the date of the special meeting and of the nominees proposed by the Board of Directors to be elected at such meeting. The stockholder shall also update and supplement such information as required under Section 5(c). In no event shall an adjournment or a postponement of a special meeting for which notice has been given, or for which the public announcement thereof has been made, commence a new time period for the giving of a stockholder's notice as described above.

(d) Notwithstanding the foregoing provisions of this Section 6, a stockholder must also comply with all applicable requirements of the 1934 Act and the rules and regulations thereunder with respect to matters set forth in this Section 6. Nothing in these Bylaws shall be deemed to affect any rights of stockholders to request inclusion

of proposals in the corporation's proxy statement pursuant to Rule 14a-8 under the 1934 Act; *provided, however*, that any references in these Bylaws to the 1934 Act or the rules and regulations thereunder are not intended to and shall not limit the requirements applicable to nominations for the election to the Board of Directors to be considered pursuant to Section 6(c) of these Bylaws.

Section 7. Notice of Meetings. Except as otherwise provided by law, notice, given in writing or by electronic transmission, of each meeting of stockholders shall be given not less than ten (10) nor more than sixty (60) days before the date of the meeting to each stockholder entitled to vote at such meeting, such notice to specify the place, if any, date and hour, in the case of special meetings, the purpose or purposes of the meeting, and the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at any such meeting. If mailed, notice is deemed given when deposited in the U.S. mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the records of the corporation. Notice of the time, place, if any, and purpose of any meeting of stockholders may be waived in writing, signed by the person entitled to notice thereof, or by electronic transmission by such person, either before or after such meeting, and will be waived by any stockholder by his, her or its attendance thereat in person, by remote communication, if applicable, or by proxy, except when the stockholder attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Any stockholder so waiving notice of such meeting shall be bound by the proceedings of any such meeting in all respects as if due notice thereof had been given.

Section 8. Quorum. At all meetings of stockholders, except where otherwise provided by statute or by the Certificate of Incorporation, or by these Bylaws, the presence, in person, by remote communication, if applicable, or by proxy duly authorized, of the holders of a majority of the voting power of the outstanding shares of stock entitled to vote shall constitute a quorum for the transaction of business. In the absence of a quorum, any meeting of stockholders may be adjourned, from time to time, either by the chairperson of the meeting or by vote of the holders of a majority of the voting power of the shares represented thereat, but no other business shall be transacted at such meeting. The stockholders present at a duly called or convened meeting, at which a quorum is present, may continue to transact business until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum. Except as otherwise provided by statute or by applicable stock exchange rules, or by the Certificate of Incorporation or these Bylaws, in all matters other than the election of directors, the affirmative vote of the majority of the voting power of the shares present in person, by remote communication, if applicable, or represented by proxy at a duly constituted meeting and entitled to vote generally on the subject matter shall be the act of the stockholders. Except as otherwise provided by statute or by applicable stock exchange rules, the Certificate of Incorporation or these Bylaws, directors shall be elected by a plurality of the votes of the shares present in person, by remote communication, if applicable, or represented by proxy at a duly constituted meeting and entitled to vote generally on the election of directors. Where a separate vote by a class or classes or series is required, except where otherwise provided by statute, or by applicable stock exchange rules, or by the Certificate of Incorporation or these Bylaws, a majority of the voting power of the outstanding shares of such class or classes or series, present in person, by remote communication, if applicable, or represented by proxy duly authorized, shall constitute a quorum entitled to take action with respect to that vote on that matter. Except where otherwise provided by statute or by applicable stock exchange rules or by the Certificate of Incorporation or these Bylaws, the affirmative vote of the majority (plurality, in the case of the election of directors) of shares of such class or classes or series present in person, by remote communication, if applicable, or represented by proxy at a duly constituted meeting shall be the act of such class or classes or series.

Section 9. Adjournment and Notice of Adjourned Meetings. Any meeting of stockholders, whether annual or special, may be adjourned from time to time either by the chairperson of the meeting or by the vote of a majority of the voting power of the shares present in person, by remote communication, if applicable, or represented by proxy at the meeting, although less than a quorum. When a meeting is adjourned to another time or place, if any, notice need not be given of the adjourned meeting if the time and place, if any, thereof are announced at the meeting at which the adjournment is taken. At the adjourned meeting, the corporation may transact any business which might have been transacted at the original meeting. If the adjournment is for more than thirty (30) days or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

Section 10. Voting Rights. For the purpose of determining those stockholders entitled to vote at any meeting of the stockholders, except as otherwise provided by law, only persons in whose names shares stand on the

stock records of the corporation on the record date, as provided in Section 12 of these Bylaws, shall be entitled to vote at any meeting of stockholders. Every person entitled to vote shall have the right to do so either in person, by remote communication, if applicable, or by an agent or agents authorized by a proxy granted in accordance with Delaware law. An agent so appointed need not be a stockholder. No proxy shall be voted after three (3) years from its date of creation unless the proxy provides for a longer period.

Section 11. Joint Owners of Stock. If shares or other securities having voting power stand of record in the names of two (2) or more persons, whether fiduciaries, members of a partnership, joint tenants, tenants in common, tenants by the entirety, or otherwise, or if two (2) or more persons have the same fiduciary relationship respecting the same shares, unless the Secretary is given written notice to the contrary and is furnished with a copy of the instrument or order appointing them or creating the relationship wherein it is so provided, their acts with respect to voting shall have the following effect: (a) if only one (1) votes, his or her act binds all; (b) if more than one (1) votes, the act of the majority so voting binds all; (c) if more than one (1) votes, but the vote is evenly split on any particular matter, each faction may vote the securities in question proportionally, or may apply to the Delaware Court of Chancery for relief as provided in the DGCL, Section 217(b). If the instrument filed with the Secretary shows that any such tenancy is held in unequal interests, a majority or even-split for the purpose of subsection (c) shall be a majority or even-split in interest.

Section 12. List of Stockholders. The Secretary shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at said meeting, arranged in alphabetical order, showing the address of each stockholder and the number and class of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, (a) on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of the meeting, or (b) during ordinary business hours, at the principal place of business of the corporation. In the event that the corporation determines to make the list available on an electronic network, the corporation may take reasonable steps to ensure that such information is available only to stockholders of the corporation. The list shall be open to examination of any stockholder during the time of the meeting as provided by law.

Section 13. Action without Meeting. No action shall be taken by the stockholders except at an annual or special meeting of stockholders called in accordance with these Bylaws, and no action shall be taken by the stockholders by written consent or by electronic transmission.

Section 14. Organization.

(a) At every meeting of stockholders, the Chairperson of the Board of Directors, or, if a Chairperson has not been appointed or is absent, the President, or, if the President is absent, a chairperson of the meeting chosen by a majority in interest of the stockholders entitled to vote, present in person or by proxy, shall act as chairperson. The Secretary, or, in his or her absence, an Assistant Secretary directed to do so by the President, shall act as secretary of the meeting.

(b) The Board of Directors of the corporation shall be entitled to make such rules or regulations for the conduct of meetings of stockholders as it shall deem necessary, appropriate or convenient. Subject to such rules and regulations of the Board of Directors, if any, the chairperson of the meeting shall have the right and authority to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such chairperson, are necessary, appropriate or convenient for the proper conduct of the meeting, including, without limitation, establishing an agenda or order of business for the meeting, rules and procedures for maintaining order at the meeting and the safety of those present, limitations on participation in such meeting to stockholders of record of the corporation and their duly authorized and constituted proxies and such other persons as the chairperson shall permit, restrictions on entry to the meeting after the time fixed for the commencement thereof, limitations on the time allotted to questions or comments by participants and regulation of the opening and closing of the polls for balloting on matters which are to be voted on by ballot. The date and time of the opening and closing of the polls for each matter upon which the stockholders will vote at the meeting shall be announced at the meeting. Unless and to the extent determined by the Board of Directors or the chairperson of the meeting, meetings of stockholders shall not be required to be held in accordance with rules of parliamentary procedure.

ARTICLE IV

DIRECTORS

Section 15. Number and Term of Office. The authorized number of directors of the corporation shall be fixed in accordance with the Certificate of Incorporation. Directors need not be stockholders unless so required by the Certificate of Incorporation. If for any cause, the directors shall not have been elected at an annual meeting, they may be elected as soon thereafter as convenient at a special meeting of the stockholders called for that purpose in the manner provided in these Bylaws.

Section 16. Powers. The powers of the corporation shall be exercised, its business conducted and its property controlled by the Board of Directors, except as may be otherwise provided by statute or by the Certificate of Incorporation.

Section 17. Classes of Directors. Effective immediately following the closing of the initial public offering pursuant to an effective registration statement under the 1933 Act, covering the offer and sale of the Corporation's common stock to the public (the "***Initial Public Offering***") the directors shall be divided into three classes as nearly equal in number as practicable, hereby designated as Class I, Class II and Class III, respectively. The Board of Directors is authorized to assign members of the Board of Directors already in office to such classes at the time the initial classification becomes effective. The term of office of the initial Class I directors shall expire upon the election of directors at the first annual meeting of stockholders following the closing of the Initial Public Offering; the term of office of the initial Class II directors shall expire upon the election of directors at the second annual meeting of stockholders following the closing of the Initial Public Offering; and the term of office of the initial Class III directors shall expire upon the election of directors at the third annual meeting of stockholders following the closing of the Initial Public Offering. At each annual meeting of stockholders, commencing with the first annual meeting of stockholders following the closing of the Initial Public Offering, each of the successors elected to replace the directors of a class whose term shall have expired at such annual meeting shall be elected to hold office until the third annual meeting of stockholders next succeeding his or her election and until his or her respective successor shall have been duly elected and qualified. Subject to the rights of holders of any outstanding series of Preferred Stock with respect to the election of directors, if the number of directors that constitutes the Board of Directors is changed, any newly created directorships or decrease in directorships shall be so apportioned by the Board of Directors among the classes as to make all classes as nearly equal in number as is practicable, provided that no decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director. Notwithstanding the foregoing provisions of this paragraph, and subject to the rights of holders of any series of Preferred Stock with respect to the election of directors, each director shall serve until such director's successor is duly elected and qualified or until such director's earlier death, resignation or removal.

Section 18. Vacancies. Unless otherwise provided in the Certificate of Incorporation, and subject to the rights of the holders of any series of Preferred Stock, any vacancies on the Board of Directors resulting from death, resignation, disqualification, removal or other causes and any newly created directorships resulting from any increase in the number of directors shall, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by stockholders, be filled only by the affirmative vote of a majority of the directors then in office, even though less than a quorum of the Board of Directors, or by a sole remaining director, and not by the stockholders, *provided*, *however*, that whenever the holders of any class or classes of stock or series thereof are entitled to elect one or more directors by the provisions of the Certificate of Incorporation, vacancies and newly created directorships of such class or classes or series shall, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by stockholders, be filled by a majority of the directors elected by such class or classes or series thereof then in office, or by a sole remaining director so elected, and not by the stockholders. Any director elected in accordance with the preceding sentence shall hold office for the remainder of the full term of the director for which the vacancy was created or occurred and until such director's successor shall have been elected and qualified. A vacancy in the Board of Directors shall be deemed to exist under this Bylaw in the case of the death, removal or resignation of any director.

Section 19. Resignation. Any director may resign at any time by delivering his or her notice in writing or by electronic transmission to the Secretary, such resignation to specify whether it will be effective at a particular time. If no such specification is made, the resignation shall be deemed effective at the time of delivery of the

resignation to the Secretary. When one or more directors shall resign from the Board of Directors, effective at a future date, a majority of the directors then in office, including those who have so resigned, shall have power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective, and each director so chosen shall hold office for the unexpired portion of the term of the director whose place shall be vacated and until his or her successor shall have been duly elected and qualified.

Section 20. Removal.

(a) Subject to the rights of holders of any series of Preferred Stock to elect additional directors under specified circumstances, neither the Board of Directors nor any individual director may be removed without cause.

(b) Subject to any limitation imposed by law, any individual director or directors may be removed with cause by the affirmative vote of the holders of at least sixty-six and two-thirds percent (66 2/3%) of the voting power of all then outstanding shares of capital stock of the corporation entitled to vote generally at an election of directors, voting together as a single class.

Section 21. Meetings.

(a) Regular Meetings. Unless otherwise restricted by the Certificate of Incorporation, regular meetings of the Board of Directors may be held at any time or date and at any place within or without the State of Delaware which has been designated by the Board of Directors and publicized among all directors, either orally or in writing, by telephone, including a voice-messaging system or other system designed to record and communicate messages, facsimile, telegraph or telex, or by electronic mail or other electronic means. No further notice shall be required for regular meetings of the Board of Directors.

(b) Special Meetings. Unless otherwise restricted by the Certificate of Incorporation, special meetings of the Board of Directors may be held at any time and place within or without the State of Delaware whenever called by the Chairperson of the Board, the Chief Executive Officer or a majority of the total number of authorized directors.

(c) Meetings by Electronic Communications Equipment. Any member of the Board of Directors, or of any committee thereof, may participate in a meeting by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and participation in a meeting by such means shall constitute presence in person at such meeting.

(d) Notice of Special Meetings. Notice of the time and place of all special meetings of the Board of Directors shall be given orally or in writing, by telephone, including a voice messaging system or other system or technology designed to record and communicate messages, facsimile, telegraph or telex, or by electronic mail or other electronic means, during normal business hours, at least twenty-four (24) hours before the date and time of the meeting. If notice is sent by U.S. mail, it shall be sent by first class mail, charges prepaid, at least three (3) days before the date of the meeting. Notice of any meeting may be waived in writing, or by electronic transmission, at any time before or after the meeting and will be waived by any director by attendance thereat, except when the director attends the meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened.

(e) Waiver of Notice. The transaction of all business at any meeting of the Board of Directors, or any committee thereof, however called or noticed, or wherever held, shall be as valid as though it had been transacted at a meeting duly held after regular call and notice, if a quorum be present and if, either before or after the meeting, each of the directors not present who did not receive notice shall sign a written waiver of notice or shall waive notice by electronic transmission. All such waivers shall be filed with the corporate records or made a part of the minutes of the meeting.

Section 22. Quorum and Voting.

(a) Unless the Certificate of Incorporation requires a greater number, and except with respect to questions related to indemnification arising under Section 44 for which a quorum shall be one-third of the exact number of directors fixed from time to time, a quorum of the Board of Directors shall consist of a majority of the

exact number of directors fixed from time to time by the Board of Directors in accordance with the Certificate of Incorporation; *provided, however*, at any meeting whether a quorum be present or otherwise, a majority of the directors present may adjourn from time to time until the time fixed for the next regular meeting of the Board of Directors, without notice other than by announcement at the meeting.

(b) At each meeting of the Board of Directors at which a quorum is present, all questions and business shall be determined by the affirmative vote of a majority of the directors present, unless a different vote be required by law, the Certificate of Incorporation or these Bylaws.

Section 23. Action without Meeting. Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting, if all members of the Board of Directors or committee, as the case may be, consent thereto in writing or by electronic transmission, and such writing or writings or transmission or transmissions are filed with the minutes of proceedings of the Board of Directors or committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.

Section 24. Fees and Compensation. Directors shall be entitled to such compensation for their services as may be approved by the Board of Directors, including, if so approved, by resolution of the Board of Directors, a fixed sum and expenses of attendance, if any, for attendance at each regular or special meeting of the Board of Directors and at any meeting of a committee of the Board of Directors. Nothing herein contained shall be construed to preclude any director from serving the corporation in any other capacity as an officer, agent, employee, or otherwise and receiving compensation therefor. Directors need not be stockholders of the Corporation. No person shall qualify for service as a director of the Corporation if he or she is a party to any compensatory, payment or other financial agreement, arrangement or understanding with any person or entity other than the Corporation, or has received any such compensation or other payment from any person or entity other than the Corporation, in each case in connection with candidacy or service as a director of the Corporation; provided that agreements providing only for indemnification and/or reimbursement of out-of-pocket expenses in connection with candidacy as director (but not, for the avoidance of doubt, in connection with service as a director) and any pre-existing employment agreement a candidate has with his or her employer (not entered into in contemplation of the employer's investment in the Corporation or such employee's candidacy as a director) shall not be disqualifying under this Section 24; and provided, further, that agreements, arrangements, understandings, compensation or other payments in connection with candidacy or service as a director of the Corporation shall not be disqualifying under this Section 24 if the Board in its discretion makes an affirmative determination that the director satisfies applicable regulatory and stock exchange listing requirements to be an independent director of the Corporation and that the director is free of any other relationship (with the Corporation and its consolidated subsidiaries (collectively, the "***Company***") or any stockholder or otherwise) that would interfere with the exercise of independent judgment by such director.

Section 25. Committees.

(a) Executive Committee. The Board of Directors may appoint an Executive Committee to consist of one (1) or more members of the Board of Directors. The Executive Committee, to the extent permitted by law and provided in the resolution of the Board of Directors shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the corporation, and may authorize the seal of the corporation to be affixed to all papers which may require it; but no such committee shall have the power or authority in reference to (i) approving or adopting, or recommending to the stockholders, any action or matter (other than the election or removal of directors) expressly required by the DGCL to be submitted to stockholders for approval, or (ii) adopting, amending or repealing any Bylaw of the corporation.

(b) Other Committees. The Board of Directors may, from time to time, appoint such other committees as may be permitted by law. Such other committees appointed by the Board of Directors shall consist of one (1) or more members of the Board of Directors and shall have such powers and perform such duties as may be prescribed by the resolution or resolutions creating such committees, but in no event shall any such committee have the powers denied to the Executive Committee in these Bylaws.

(c) Term. The Board of Directors, subject to any requirements of any outstanding series of Preferred Stock and the provisions of subsections (a) or (b) of this Section 25, may at any time increase or decrease the

number of members of a committee or terminate the existence of a committee. The membership of a committee member shall terminate on the date of his or her death or voluntary resignation from the committee or from the Board of Directors. The Board of Directors may at any time for any reason remove any individual committee member and the Board of Directors may fill any committee vacancy created by death, resignation, removal or increase in the number of members of the committee. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee, and, in addition, in the absence or disqualification of any member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not he or they constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any such absent or disqualified member.

(d) Meetings. Unless the Board of Directors shall otherwise provide, regular meetings of the Executive Committee or any other committee appointed pursuant to this Section 25 shall be held at such times and places as are determined by the Board of Directors, or by any such committee, and when notice thereof has been given to each member of such committee, no further notice of such regular meetings need be given thereafter. Special meetings of any such committee may be held at any place which has been determined from time to time by such committee, and may be called by any director who is a member of such committee, upon notice to the members of such committee of the time and place of such special meeting given in the manner provided for the giving of notice to members of the Board of Directors of the time and place of special meetings of the Board of Directors. Notice of any special meeting of any committee may be waived in writing or by electronic transmission at any time before or after the meeting and will be waived by any director by attendance thereat, except when the director attends such special meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Unless otherwise provided by the Board of Directors in the resolutions authorizing the creation of the committee, a majority of the authorized number of members of any such committee shall constitute a quorum for the transaction of business, and the act of a majority of those present at any meeting at which a quorum is present shall be the act of such committee.

Section 26. Duties of Chairperson of the Board of Directors and Lead Independent Director.

(a) The Chairperson of the Board of Directors, if appointed and when present, shall preside at all meetings of the stockholders and the Board of Directors. The Chairperson of the Board of Directors shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers, as the Board of Directors shall designate from time to time.

(b) The Chairperson of the Board of Directors, or if the Chairperson is not an independent director, one of the independent directors, may be designated by the Board of Directors as lead independent director to serve until replaced by the Board of Directors (the "***Lead Independent Director***"). The Lead Independent Director will perform such other duties as may be established or delegated by the Board of Directors.

Section 27. Organization. At every meeting of the directors, the Chairperson of the Board of Directors, or, if a Chairperson has not been appointed or is absent, the Lead Independent Director, or if the Lead Independent Director has not been appointed or is absent, the Chief Executive Officer (if a director), or, if a Chief Executive Officer is absent, the President (if a director), or if the President is absent, the most senior Vice President (if a director), or, in the absence of any such person, a chairperson of the meeting chosen by a majority of the directors present, shall preside over the meeting. The Secretary, or in his or her absence, any Assistant Secretary or other officer, director or other person directed to do so by the person presiding over the meeting, shall act as secretary of the meeting.

ARTICLE V

OFFICERS

Section 28. Officers Designated. The officers of the corporation shall include, if and when designated by the Board of Directors, the Chairperson of the Board of Directors (provided that notwithstanding anything to the contrary contained in these Bylaws, the Chairperson of the Board of Directors shall not be deemed an officer of the corporation unless so designated by the Board of Directors), the Chief Executive Officer, the President, one or more Vice Presidents, the Secretary, the Chief Financial Officer and the Treasurer. The Board of Directors may also

appoint one or more Assistant Secretaries and Assistant Treasurers and such other officers and agents with such powers and duties as it shall deem necessary. The Board of Directors may assign such additional titles to one or more of the officers as it shall deem appropriate. Any one person may hold any number of offices of the corporation at any one time unless specifically prohibited therefrom by law. The salaries and other compensation of the officers of the corporation shall be fixed by or in the manner designated by the Board of Directors.

Section 29. Tenure and Duties of Officers.

(a) General. All officers shall hold office at the pleasure of the Board of Directors and until their successors shall have been duly elected and qualified, unless sooner removed. Any officer elected or appointed by the Board of Directors may be removed at any time by the Board of Directors. If the office of any officer becomes vacant for any reason, the vacancy may be filled by the Board of Directors.

(b) Duties of Chief Executive Officer. The Chief Executive Officer shall preside at all meetings of the stockholders and at all meetings of the Board of Directors (if a director), unless the Chairperson of the Board of Directors or the Lead Independent Director has been appointed and is present. Unless an officer has been appointed Chief Executive Officer of the corporation, the President shall be the chief executive officer of the corporation and shall, subject to the control of the Board of Directors, have general supervision, direction and control of the business and officers of the corporation. To the extent that a Chief Executive Officer has been appointed and no President has been appointed, all references in these Bylaws to the President shall be deemed references to the Chief Executive Officer. The Chief Executive Officer shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers, as the Board of Directors shall designate from time to time.

(c) Duties of President. The President shall preside at all meetings of the stockholders and at all meetings of the Board of Directors, unless the Chairperson of the Board of Directors or the Chief Executive Officer has been appointed and is present. Unless another officer has been appointed Chief Executive Officer of the corporation, the President shall be the chief executive officer of the corporation and shall, subject to the control of the Board of Directors, have general supervision, direction and control of the business and officers of the corporation. The President shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers, as the Board of Directors shall designate from time to time.

(d) Duties of Vice Presidents. The Vice Presidents may assume and perform the duties of the President in the absence or disability of the President or whenever the office of President is vacant. The Vice Presidents shall perform other duties commonly incident to their office and shall also perform such other duties and have such other powers as the Board of Directors or the Chief Executive Officer, or, if the Chief Executive Officer has not been appointed or is absent, the President shall designate from time to time.

(e) Duties of Secretary. The Secretary shall attend all meetings of the stockholders and of the Board of Directors and shall record all acts and proceedings thereof in the minute book of the corporation. The Secretary shall give notice in conformity with these Bylaws of all meetings of the stockholders and of all meetings of the Board of Directors and any committee thereof requiring notice. The Secretary shall perform all other duties provided for in these Bylaws and other duties commonly incident to the office and shall also perform such other duties and have such other powers, as the Board of Directors shall designate from time to time. The President may direct any Assistant Secretary or other officer to assume and perform the duties of the Secretary in the absence or disability of the Secretary, and each Assistant Secretary shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time.

(f) Duties of Chief Financial Officer. The Chief Financial Officer shall keep or cause to be kept the books of account of the corporation in a thorough and proper manner and shall render statements of the financial affairs of the corporation in such form and as often as required by the Board of Directors or the President. The Chief Financial Officer, subject to the order of the Board of Directors, shall have the custody of all funds and securities of the corporation. The Chief Financial Officer shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time. To the extent that a Chief Financial Officer has been appointed and no Treasurer has been appointed, all references in these Bylaws to the Treasurer shall be deemed references to the Chief Financial Officer.

The President may direct the Treasurer, if any, or any Assistant Treasurer, or the Controller or any Assistant Controller to assume and perform the duties of the Chief Financial Officer in the absence or disability of the Chief Financial Officer, and each Treasurer and Assistant Treasurer and each Controller and Assistant Controller shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time.

(g) Duties of Treasurer. Unless another officer has been appointed Chief Financial Officer of the corporation, the Treasurer shall be the chief financial officer of the corporation and shall keep or cause to be kept the books of account of the corporation in a thorough and proper manner and shall render statements of the financial affairs of the corporation in such form and as often as required by the Board of Directors or the President, and, subject to the order of the Board of Directors, shall have the custody of all funds and securities of the corporation. The Treasurer shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time.

Section 30. Delegation of Authority. The Board of Directors may from time to time delegate the powers or duties of any officer to any other officer or agent, notwithstanding any provision hereof.

Section 31. Resignations. Any officer may resign at any time by giving notice in writing or by electronic transmission to the Board of Directors or to the President or to the Secretary. Any such resignation shall be effective when received by the person or persons to whom such notice is given, unless a later time is specified therein, in which event the resignation shall become effective at such later time. Unless otherwise specified in such notice, the acceptance of any such resignation shall not be necessary to make it effective. Any resignation shall be without prejudice to the rights, if any, of the corporation under any contract with the resigning officer.

Section 32. Removal. Any officer may be removed from office at any time, either with or without cause, by the affirmative vote of a majority of the directors in office at the time, or by the unanimous written consent of the directors in office at the time, or by any committee or by the Chief Executive Officer or by other superior officers upon whom such power of removal may have been conferred by the Board of Directors.

ARTICLE VI

EXECUTION OF CORPORATE INSTRUMENTS AND VOTING OF SECURITIES OWNED BY THE CORPORATION

Section 33. Execution of Corporate Instruments. The Board of Directors may, in its discretion, determine the method and designate the signatory officer or officers, or other person or persons, to execute on behalf of the corporation any corporate instrument or document, or to sign on behalf of the corporation the corporate name without limitation, or to enter into contracts on behalf of the corporation, except where otherwise provided by law or these Bylaws, and such execution or signature shall be binding upon the corporation.

All checks and drafts drawn on banks or other depositaries on funds to the credit of the corporation or in special accounts of the corporation shall be signed by such person or persons as the Board of Directors shall authorize so to do.

Unless authorized or ratified by the Board of Directors or within the agency power of an officer, no officer, agent or employee shall have any power or authority to bind the corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

Section 34. Voting Of Securities Owned By the Corporation. All stock and other securities of other corporations owned or held by the corporation for itself, or for other parties in any capacity, shall be voted, and all proxies with respect thereto shall be executed, by the person authorized so to do by resolution of the Board of Directors, or, in the absence of such authorization, by the Chairperson of the Board of Directors, the Chief Executive Officer, the President, or any Vice President.

ARTICLE VII

SHARES OF STOCK

Section 35. Form and Execution of Certificates. The shares of the corporation shall be represented by certificates, or shall be uncertificated if so provided by resolution or resolutions of the Board of Directors. Certificates for the shares of stock, if any, shall be in such form as is consistent with the Certificate of Incorporation and applicable law. Every holder of stock in the corporation represented by certificate shall be entitled to have a certificate signed by or in the name of the corporation by the Chairperson of the Board of Directors, or the President or any Vice President and by the Treasurer or Assistant Treasurer or the Secretary or Assistant Secretary, certifying the number of shares owned by him in the corporation. Any or all of the signatures on the certificate may be facsimiles. In case any officer, transfer agent, or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent, or registrar before such certificate is issued, it may be issued with the same effect as if he were such officer, transfer agent, or registrar at the date of issue.

Section 36. Lost Certificates. A new certificate or certificates shall be issued in place of any certificate or certificates theretofore issued by the corporation alleged to have been lost, stolen, or destroyed, upon the making of an affidavit of that fact by the person claiming the certificate of stock to be lost, stolen, or destroyed. The corporation may require, as a condition precedent to the issuance of a new certificate or certificates, the owner of such lost, stolen, or destroyed certificate or certificates, or the owner's legal representative, to agree to indemnify the corporation in such manner as it shall require or to give the corporation a surety bond in such form and amount as it may direct as indemnity against any claim that may be made against the corporation with respect to the certificate alleged to have been lost, stolen, or destroyed.

Section 37. Transfers.

(a) Transfers of record of shares of stock of the corporation shall be made only upon its books by the holders thereof, in person or by attorney duly authorized, and, in the case of stock represented by certificate, upon the surrender of a properly endorsed certificate or certificates for a like number of shares.

(b) The corporation shall have power to enter into and perform any agreement with any number of stockholders of any one or more classes of stock of the corporation to restrict the transfer of shares of stock of the corporation of any one or more classes owned by such stockholders in any manner not prohibited by the DGCL.

Section 38. Fixing Record Dates.

. **(a)** In order that the corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which record date shall, subject to applicable law, not be more than sixty (60) nor less than ten (10) days before the date of such meeting. If no record date is fixed by the Board of Directors, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or if notice is waived, at the close of business on the day next preceding the day on which the meeting is held. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; *provided*, *however*, that the Board of Directors may fix a new record date for the adjourned meeting.

(b) In order that the corporation may determine the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights or the stockholders entitled to exercise any rights in respect of any change, conversion or exchange of stock, or for the purpose of any other lawful action, the Board of Directors may fix, in advance, a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted, and which record date shall be not more than sixty (60) days prior to such action. If no record date is fixed, the record date for determining stockholders for any such purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto.

Section 39. Registered Stockholders. The corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends, and to vote as such owner, and shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

ARTICLE VIII

OTHER SECURITIES OF THE CORPORATION

Section 40. Execution of Other Securities. All bonds, debentures and other corporate securities of the corporation, other than stock certificates (covered in Section 35), may be signed by the Chairperson of the Board of Directors, the President or any Vice President, or such other person as may be authorized by the Board of Directors, and the corporate seal impressed thereon or a facsimile of such seal imprinted thereon and attested by the signature of the Secretary or an Assistant Secretary, or the Chief Financial Officer or Treasurer or an Assistant Treasurer; *provided, however*, that where any such bond, debenture or other corporate security shall be authenticated by the manual signature, or where permissible facsimile signature, of a trustee under an indenture pursuant to which such bond, debenture or other corporate security shall be issued, the signatures of the persons signing and attesting the corporate seal on such bond, debenture or other corporate security may be the imprinted facsimile of the signatures of such persons. Interest coupons appertaining to any such bond, debenture or other corporate security, authenticated by a trustee as aforesaid, shall be signed by the Treasurer or an Assistant Treasurer of the corporation or such other person as may be authorized by the Board of Directors, or bear imprinted thereon the facsimile signature of such person. In case any officer who shall have signed or attested any bond, debenture or other corporate security, or whose facsimile signature shall appear thereon or on any such interest coupon, shall have ceased to be such officer before the bond, debenture or other corporate security so signed or attested shall have been delivered, such bond, debenture or other corporate security nevertheless may be adopted by the corporation and issued and delivered as though the person who signed the same or whose facsimile signature shall have been used thereon had not ceased to be such officer of the corporation.

ARTICLE IX

DIVIDENDS

Section 41. Declaration of Dividends. Dividends upon the capital stock of the corporation, subject to the provisions of the Certificate of Incorporation and applicable law, if any, may be declared by the Board of Directors pursuant to law at any regular or special meeting. Dividends may be paid in cash, in property, or in shares of the capital stock, subject to the provisions of the Certificate of Incorporation and applicable law.

Section 42. Dividend Reserve. Before payment of any dividend, there may be set aside out of any funds of the corporation available for dividends such sum or sums as the Board of Directors from time to time, in their absolute discretion, think proper as a reserve or reserves to meet contingencies, or for equalizing dividends, or for repairing or maintaining any property of the corporation, or for such other purpose as the Board of Directors shall think conducive to the interests of the corporation, and the Board of Directors may modify or abolish any such reserve in the manner in which it was created.

ARTICLE X

FISCAL YEAR

Section 43. Fiscal Year. The fiscal year of the corporation shall be fixed by resolution of the Board of Directors.

ARTICLE XI

INDEMNIFICATION

Section 44. Indemnification of Directors, Executive Officers, Other Officers, Employees and Other Agents

(a) Directors and Executive Officers. The corporation shall indemnify its directors and executive officers (for the purposes of this Article XI, "***executive officers***" shall have the meaning defined in Rule 3b-7 promulgated under the 1934 Act) to the fullest extent not prohibited by the DGCL or any other applicable law; *provided*, *however*, that the corporation may modify the extent of such indemnification by individual contracts with its directors and executive officers; and, provided, further, that the corporation shall not be required to indemnify any director or executive officer in connection with any proceeding (or part thereof) initiated by such person unless (i) such indemnification is expressly required to be made by law, (ii) the proceeding was authorized by the Board of Directors of the corporation, (iii) such indemnification is provided by the corporation, in its sole discretion, pursuant to the powers vested in the corporation under the DGCL or any other applicable law or (iv) such indemnification is required to be made under subsection (d).

(b) Other Officers, Employees and Other Agents. The corporation shall have power to indemnify its non-executive officers, employees and other agents as set forth in the DGCL or any other applicable law. The Board of Directors shall have the power to delegate responsibility for determining whether any such non-executive officer, employee or other agent shall be given indemnification to such person or persons as the Board of Directors may designate.

(c) Expenses. The corporation shall advance to any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he is or was a director or executive officer of the corporation, or is or was serving at the request of the corporation as a director or executive officer of another corporation, partnership, joint venture, trust or other enterprise, prior to the final disposition of the proceeding, promptly following request therefor, all expenses incurred by any director or executive officer in connection with such proceeding; *provided*, *however*, that, if the DGCL requires, an advancement of expenses incurred by a director or executive officer in his or her capacity as a director or executive officer (and not in any other capacity in which service was or is rendered by such indemnitee, including, without limitation, service to an employee benefit plan) shall be made only upon delivery to the corporation of an undertaking (hereinafter an "***undertaking***"), by or on behalf of such indemnitee, to repay all amounts so advanced if it shall ultimately be determined by final judicial decision (hereinafter a "***final adjudication***") from which there is no further right to appeal that such indemnitee is not entitled to be indemnified for such expenses under this section or otherwise.

(d) Enforcement. Without the necessity of entering into an express contract, all rights to indemnification and advances to directors and executive officers under this Bylaw shall be deemed to be contractual rights and be effective to the same extent and as if provided for in a contract between the corporation and the director or executive officer, as applicable. Any right to indemnification or advances granted by this Bylaw to a director or executive officer shall be enforceable by or on behalf of the person holding such right in any court of competent jurisdiction if (i) the claim for indemnification or advances is denied, in whole or in part, or (ii) no disposition of such claim is made within ninety (90) days of request therefor. To the extent permitted by law, the claimant in such enforcement action, if successful in whole or in part, shall be entitled to be paid also the expense of prosecuting the claim. In connection with any claim for indemnification, the corporation shall be entitled to raise as a defense to any such action that the claimant has not met the standards of conduct that make it permissible under the DGCL or any other applicable law for the corporation to indemnify the claimant for the amount claimed. Neither the failure of the corporation (including its Board of Directors, independent legal counsel or its stockholders) to have made a determination prior to the commencement of such action that indemnification of the claimant is proper in the circumstances because he has met the applicable standard of conduct set forth in the DGCL or any other applicable law, nor an actual determination by the corporation (including its Board of Directors, independent legal counsel or its stockholders) that the claimant has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that claimant has not met the applicable standard of conduct. In any suit brought by a director or executive officer to enforce a right to indemnification or to an advancement of expenses hereunder, the burden of proving that the director or executive officer is not entitled to be indemnified, or to such advancement of expenses, under this section or otherwise shall be on the corporation.

(e) Non-Exclusivity of Rights. The rights conferred on any person by this Bylaw shall not be exclusive of any other right which such person may have or hereafter acquire under any applicable statute, provision of the Certificate of Incorporation, Bylaws, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in his or her official capacity and as to action in another capacity while holding office. The corporation is specifically authorized to enter into individual contracts with any or all of its directors, officers, employees or agents respecting indemnification and advances, to the fullest extent not prohibited by the DGCL, or by any other applicable law.

(f) Survival of Rights. The rights conferred on any person by this Bylaw shall continue as to a person who has ceased to be a director, officer, employee or other agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

(g) Insurance. To the fullest extent permitted by the DGCL or any other applicable law, the corporation, upon approval by the Board of Directors, may purchase insurance on behalf of any person required or permitted to be indemnified pursuant to this section.

(h) Amendments. Any repeal or modification of this section shall only be prospective and shall not affect the rights under this Bylaw in effect at the time of the alleged occurrence of any action or omission to act that is the cause of any proceeding against any agent of the corporation.

(i) Saving Clause. If this Bylaw or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the corporation shall nevertheless indemnify each director and executive officer to the full extent not prohibited by any applicable portion of this section that shall not have been invalidated, or by any other applicable law. If this section shall be invalid due to the application of the indemnification provisions of another jurisdiction, then the corporation shall indemnify each director and executive officer to the full extent under any other applicable law.

(j) Certain Definitions. For the purposes of this Bylaw, the following definitions shall apply:

(1) The term “proceeding” shall be broadly construed and shall include, without limitation, the investigation, preparation, prosecution, defense, settlement, arbitration and appeal of, and the giving of testimony in, any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative.

(2) The term “expenses” shall be broadly construed and shall include, without limitation, court costs, attorneys’ fees, witness fees, fines, amounts paid in settlement or judgment and any other costs and expenses of any nature or kind incurred in connection with any proceeding.

(3) The term the “corporation” shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, and employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under the provisions of this section with respect to the resulting or surviving corporation as he would have with respect to such constituent corporation if its separate existence had continued.

(4) References to a “director,” “executive officer,” “officer,” “employee,” or “agent” of the corporation shall include, without limitation, situations where such person is serving at the request of the corporation as, respectively, a director, executive officer, officer, employee, trustee or agent of another corporation, partnership, joint venture, trust or other enterprise.

(5) References to “other enterprises” shall include employee benefit plans; references to “fines” shall include any excise taxes assessed on a person with respect to an employee benefit plan; and references

to “serving at the request of the corporation” shall include any service as a director, officer, employee or agent of the corporation which imposes duties on, or involves services by, such director, officer, employee, or agent with respect to an employee benefit plan, its participants, or beneficiaries; and a person who acted in good faith and in a manner such person reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner “not opposed to the best interests of the corporation” as referred to in this section.

ARTICLE XII

NOTICES

Section 45. Notices.

(a) Notice To Stockholders. Written notice to stockholders of stockholder meetings shall be given as provided in Section 7 herein. Without limiting the manner by which notice may otherwise be given effectively to stockholders under any agreement or contract with such stockholder, and except as otherwise required by law, written notice to stockholders for purposes other than stockholder meetings may be sent by U.S. mail or nationally recognized overnight courier, or by facsimile, telegraph or telex or by electronic mail or other electronic means.

(b) Notice To Directors. Any notice required to be given to any director may be given by the method stated in subsection (a), or as otherwise provided in these Bylaws, with notice other than one which is delivered personally to be sent to such address as such director shall have filed in writing with the Secretary, or, in the absence of such filing, to the last known address of such director.

(c) Affidavit Of Mailing. An affidavit of mailing, executed by a duly authorized and competent employee of the corporation or its transfer agent appointed with respect to the class of stock affected, or other agent, specifying the name and address or the names and addresses of the stockholder or stockholders, or director or directors, to whom any such notice or notices was or were given, and the time and method of giving the same, shall in the absence of fraud, be prima facie evidence of the facts therein contained.

(d) Methods of Notice. It shall not be necessary that the same method of giving notice be employed in respect of all recipients of notice, but one permissible method may be employed in respect of any one or more, and any other permissible method or methods may be employed in respect of any other or others.

(e) Notice To Person With Whom Communication Is Unlawful. Whenever notice is required to be given, under any provision of law or of the Certificate of Incorporation or Bylaws of the corporation, to any person with whom communication is unlawful, the giving of such notice to such person shall not be required and there shall be no duty to apply to any governmental authority or agency for a license or permit to give such notice to such person. Any action or meeting which shall be taken or held without notice to any such person with whom communication is unlawful shall have the same force and effect as if such notice had been duly given. In the event that the action taken by the corporation is such as to require the filing of a certificate under any provision of the DGCL, the certificate shall state, if such is the fact and if notice is required, that notice was given to all persons entitled to receive notice except such persons with whom communication is unlawful.

(f) Notice to Stockholders Sharing an Address. Except as otherwise prohibited under DGCL, any notice given under the provisions of DGCL, the Certificate of Incorporation or these Bylaws shall be effective if given by a single written notice to stockholders who share an address if consented to by the stockholders at that address to whom such notice is given. Such consent shall have been deemed to have been given if such stockholder fails to object in writing to the corporation within sixty (60) days of having been given notice by the corporation of its intention to send the single notice. Any consent shall be revocable by the stockholder by written notice to the corporation.

ARTICLE XIII

AMENDMENTS

Section 46. Bylaw Amendments. Subject to the limitations set forth in Section 44(h) of these Bylaws or the provisions of the Certificate of Incorporation, the Board of Directors is expressly empowered to adopt, amend or repeal these Bylaws of the corporation. Any adoption, amendment or repeal of these Bylaws of the corporation by the Board of Directors shall require the approval of a majority of the authorized number of directors. The stockholders also shall have power to adopt, amend or repeal these Bylaws of the corporation; *provided*, *however*, that, in addition to any vote of the holders of any class or series of stock of the corporation required by law or by the Certificate of Incorporation, such action by stockholders shall require the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all of the then-outstanding shares of the capital stock of the corporation entitled to vote generally in the election of directors, voting together as a single class.

ARTICLE XIV

LOANS TO OFFICERS OR EMPLOYEES

Section 47. Loans to Officers or Employees. Except as otherwise prohibited by applicable law, the corporation may lend money to, or guarantee any obligation of, or otherwise assist any officer or other employee of the corporation or of its subsidiaries, including any officer or employee who is a director of the corporation or its subsidiaries, whenever, in the judgment of the Board of Directors, such loan, guarantee or assistance may reasonably be expected to benefit the corporation. The loan, guarantee or other assistance may be with or without interest and may be unsecured, or secured in such manner as the Board of Directors shall approve, including, without limitation, a pledge of shares of stock of the corporation. Nothing in these Bylaws shall be deemed to deny, limit or restrict the powers of guaranty or warranty of the corporation at common law or under any statute.

Exhibit 3.3

Execution Copy

SECOND AMENDED AND RESTATED

LIMITED LIABILITY COMPANY AGREEMENT

OF

ELECTROCORE, LLC,

A DELAWARE LIMITED LIABILITY COMPANY

Dated as of August 18, 2017

TABLE OF CONTENTS

SECOND AMENDED AND RESTATED
LIMITED LIABILITY COMPANY AGREEMENT
OF
ELECTROCORE, LLC

This SECOND AMENDED AND RESTATED LIMITED LIABILITY COMPANY AGREEMENT (this "Agreement") dated as of August 18, 2017 of ElectroCore, LLC (the "Company"), a Delaware limited liability company, is made and entered into by and among the Existing Members of the Company together with such additional Persons who become a party hereto.

WHEREAS, the Existing Members are parties to that certain Amended and Restated Limited Liability Company Agreement of the Company, dated as of March 28, 2013 (the "Prior Agreement"); and

WHEREAS, the Existing Members desire to amend and restate the Prior Agreement in its entirety as set forth herein to make certain amendments to the terms of the Company's Common Units and Series A Preferred Units and to create a new class of Preferred Units to be designated as "Series B Preferred Units".

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein made and other good and valuable consideration, the Members hereby agree that the Prior Agreement is hereby amended and restated in its entirety as follows:

ARTICLE I
Definitions

1.1 Definitions. The following terms used in this Agreement shall have the following meanings (unless otherwise expressly provided in this Agreement):

"Adjusted Capital Account Deficit" means, with respect to any Member, the deficit balance, if any, in such Member's Capital Account as of the end of the relevant Taxable Year, after giving effect to the following adjustments:

(i) Crediting to such Capital Account any amount which such Member is obligated to restore or is deemed to be obligated to restore pursuant to Treasury Regulation Sections 1.704-1(b)(2)(ii)(c), 1.704-2 (g)(1), and 1.704-2(i); and

(ii) Debiting to such Capital Account the items described in Treasury Regulation Section 1.704-1(b)(2)(ii)(d)(4), (5) and (6).

"Adjusted Taxable Income" of a Member for a Fiscal Year (or portion thereof) with respect to Units held by such Member means the federal taxable income (or alternative minimum taxable income, as the case may be) allocated by the Company to the Member with respect to such Units (as adjusted by any final determination in connection with any tax audit or other proceeding) for such Fiscal Year (or portion thereof); provided that such taxable income (or alternative minimum taxable income, as the case may be) shall be computed (i) as if all

excess taxable losses and excess taxable credits allocated with respect to such Units were carried forward (taking into account the character of any such loss carryforward as capital or ordinary), and (ii) taking into account any special basis adjustment with respect to such Member resulting from an election by the Company under Code Section 754.

"Affiliate" means, with respect to any specified Person, any other Person who, directly or indirectly, controls, is controlled by, or is under common control with such Person, including, without limitation, any general partner, managing member, officer or director of such Person or any venture capital fund now or hereafter existing that is controlled by one or more general partners or managing members of, or shares the same management company with, such Person.

"Available Cash" shall have the meaning set forth in Section 7.1(a).

"Bankruptcy" means, with respect to a Member, that (i) such Member has (A) made an assignment for the benefit of creditors; (B) filed a voluntary petition in bankruptcy; (C) been adjudged bankrupt or insolvent, or had entered against such Member an order of relief in any bankruptcy or insolvency proceeding; (D) filed a petition or an answer seeking for such Member any reorganization, arrangement, composition, readjustment, liquidation, dissolution or similar relief under any statute, law or regulation or filed an answer or other pleading admitting or failing to contest the material allegations of a petition filed against such Member in any proceeding of such nature; or (E) sought, consented to, or acquiesced in the appointment of a trustee, receiver or liquidator of such Member or of all or any substantial part of such Member's properties; (ii) 120 days have elapsed after the commencement of any proceeding against such Member seeking reorganization, arrangement, composition, readjustment, liquidation, dissolution or similar relief under any statute, law or regulation and such proceeding has not been dismissed; or (iii) 90 days have elapsed since the appointment without such Member's consent or acquiescence of a trustee, receiver or liquidator of such Member or of all or any substantial part of such Member's properties and such appointment has not been vacated or stayed or the appointment is not vacated within 90 days after the expiration of such stay.

"Board" means the Company's Board of Managers as constituted from time to time in accordance with Article III hereto.

"Book Value" means, with respect to any Company asset, the adjusted basis of such asset for federal income tax purposes, except as follows:

(a) The initial Book Value of any Company asset contributed by a Unitholder to the Company shall be the gross Fair Market Value of such Company asset as of the date of such contribution;

(b) The Book Value of each Company asset shall be adjusted to equal its respective gross Fair Market Value, as provided in Section 6.2(a)(iv);

(c) The Book Value of a Company asset distributed to any Unitholder shall be the Fair Market Value of such Company asset as of the date of distribution thereof;

(d) The Book Value of each Company asset shall be increased or decreased, as the case may be, to reflect any adjustments to the adjusted basis of such Company asset pursuant to Section 734(b) or Section 743(b) of the Code, but only to the extent that such adjustments are taken into account in determining Capital Account balances pursuant to Treasury Regulations Section § 1.704-1(b)(2)(iv)(*m*); provided, that Book Values shall not be adjusted pursuant to this subparagraph (d) to the extent that an adjustment pursuant to subparagraph (b) above is made in conjunction with a transaction that would otherwise result in an adjustment pursuant to this subparagraph (d); and

(e) If the Book Value of a Company asset has been determined or adjusted pursuant to subparagraphs (a), (b) or (d) above, such Book Value shall thereafter be adjusted to reflect the Depreciation taken into account with respect to such Company asset for purposes of computing Profits and Losses.

"Capital Account" means the capital account maintained for a Member pursuant to Section 6.2.

"Capital Contribution" means any contribution to the capital of the Company in cash or property by a Member, whenever made.

"Certificate" means the Certificate of Formation of the Company under the Delaware Act.

"Code" means the United States Internal Revenue Code of 1986, as amended from time to time.

"Common Investors" means the holders of Common Units set forth on Schedule C hereto.

"Common Preference Amount" means the aggregate amount previously paid by the Common Investors for the Common Units held by such Members as of the date of the Prior Agreement. The Common Preference Amount for each Common Investor is the amount set forth for each such Common Investor on Schedule C hereto opposite each such Common Investor's name under the column titled "Common Preference Amount", and shall be fixed as of the date hereof.

"Common Preference Units" means the Common Units issued to each Common Investor as of the date hereof pursuant to Section 5.1(a)(ii). The Common Preference Units issuable to each Common Investor is set forth on Schedule C hereto opposite each such Common Investor's name under the column titled "Common Preference Units".

"Common Units" means the Units designated as Common Units hereunder, which Units shall have the designations, preferences and/or special rights set forth in this Agreement applicable to such class of Units.

"Company Minimum Gain" has the meaning set forth for "partnership minimum gain" in Treasury Regulation Section 1.704-2(d).

"Compensation Committee" means the Committee of the Board established to provide assistance to the Board with respect to compensation matters, which may include authority delegated by the Board to take any and all actions on behalf of the Company from time to time reasonably related to compensation of the Company's executive officers, including salaries, bonuses and equity grants.

"Corporate Conversion" shall have the meaning set forth in Section 11.7.

"CV Series A Warrant" means that certain warrant, dated March 15, 2013, to purchase up to 6,800,223 Series A Preferred Unit issued by the Company to CV II, which warrant has since expired.

"CV II" means Core Ventures II, LLC, a Delaware limited liability company.

"Deemed Liquidation Event" shall mean any of the following events, unless the holders of at least 66% of the outstanding Preferred Units elect otherwise by written notice sent to the Company prior to the effective date of any such event; provided that such election must include the prior approval of each of CV II and Merck GHI (so long as such party (including its Affiliates) holds at least 10,000,000 Preferred Units (such number adjusted for unit splits, combinations and similar transactions occurring after the date hereof in respect of the Preferred Units)):

(a) a merger or consolidation in which (i) the Company is a constituent party or (ii) a subsidiary of the Company is a constituent party and the Company issues membership interests (or shares of its capital stock if has become a corporation) pursuant to such merger or consolidation, except any such merger or consolidation involving the Company or a subsidiary in which the membership interests (or shares of capital stock if it has become a corporation) of the Company outstanding immediately prior to such merger or consolidation continue to represent, or are converted into or exchanged for membership interests (or shares of its capital stock if has become a corporation) that represent, immediately following such merger or consolidation, at least a majority, by voting power, of the membership interests (or shares of its capital stock if has become a corporation) of (1) the surviving or resulting entity or (2) if the surviving or resulting entity is a wholly owned subsidiary of another entity immediately following such merger or consolidation, the parent entity of such surviving or resulting entity; or

(b) the sale, lease, transfer, exclusive license or other disposition, in a single transaction or series of related transactions, by the Company or any subsidiary of the Company of all or substantially all the assets of the Company and its subsidiaries taken as a whole or the sale or disposition (whether by merger or otherwise) of one or more subsidiaries of the Company if substantially all of the assets of the Company and its subsidiaries taken as a whole are held by such subsidiary or subsidiaries, except where such sale, lease, transfer, exclusive license or other disposition is to a wholly owned subsidiary of the Company.

"Delaware Act" means the Delaware Limited Liability Company Act, as the same may be amended from time to time.

"Depreciation" means for each Taxable Year, an amount equal to the depreciation or other cost recovery deduction allowable with respect to an asset for such Taxable Year, except that (i) with respect to any asset whose Book Value differs from its adjusted tax basis for federal income tax purposes and which difference is being eliminated by the "remedial method" defined in Treasury Regulation Section 1.704-3(d), Depreciation for such Taxable Year shall be the amount of book basis recovered for such Taxable Year under the rules prescribed by Treasury Regulation Section 1.704-3(d)(2), and (ii) with respect to any other asset whose Book Value differs from its adjusted tax basis at the beginning of such Taxable Year, Depreciation shall be the amount which bears the same ratio to such beginning Book Value as the federal income tax depreciation, amortization or other cost recovery deduction for such Taxable Year bears to such beginning adjusted tax basis, provided, however, that if the adjusted tax basis of an asset at the beginning of such Taxable Year is zero, Depreciation shall be determined with reference to such beginning Book Value using any reasonable method selected by the Tax Matters Person.

"Derivative Securities" means any equity securities which are, at the time of determination, convertible into Common Units, and are in the money.

"Designation" shall have the meaning set forth in Section 5.2.

"Estimated Tax Amount" of a Member for a Fiscal Year means the Member's Tax Amount for such Fiscal Year as estimated in good faith from time to time by the Board. In making such estimate, the Board shall take into account amounts shown on Internal Revenue Service Form 1065 filed by the Company and similar state or local forms filed by the Company for the preceding taxable year and such other adjustments as in the reasonable business judgment of the Board are necessary or appropriate to reflect the estimated operations of the Company for the Fiscal Year.

"Existing Members" means the persons who hold Membership Interests in the Company as of the date hereof pursuant to the Prior Agreement.

"Fair Market Value" of any asset or the Units as of any date means the purchase price which a willing buyer having all relevant knowledge would pay a willing seller for such asset or Units in an arm's-length transaction, as determined in good faith by the Board based on such factors as the Board, in the exercise of its reasonable business judgment, considers relevant.

"Fiscal Year" means the Company's Taxable Year.

"Fixed Series A Return" means an amount, for each Series A Preferred Unit, equal to the accrued and unpaid Series A Preferred Return in respect of such Series A Preferred Unit calculated from the original issue date of each such Series A Preferred Unit up to an including March 13, 2016, which amount equals $3,629,092 in the aggregate.

"Founding Investors" shall mean Joseph P. Errico, Dr. Thomas J. Errico and Kathryn Theofilos.

"GAAP" shall mean shall mean generally accepted accounting principles (applied consistently) as in effect on the applicable date or during the applicable period, as the case may be.

"GCL" means the General Corporation Law of the State of Delaware, as the same may be amended from time to time.

"GHI/CV II Series A Percentage" means, as of the applicable measurement date, the number, expressed as a percentage, equal to the sum of the percentage of outstanding Series A Preferred Units held of record by Merck GHI plus the percentage of outstanding Series A Preferred Units held of record by CV II.

"GHI/CV II Series B Percentage" means, as of the applicable measurement date, the number, expressed as a percentage, equal to the sum of the percentage of outstanding Series B Preferred Units held of record by Merck GHI plus the percentage of outstanding Series B Preferred Units held of record by CV II.

"Healthcare Trigger Event" shall mean any transaction or new strategic business initiative, agreement or arrangement that Merck GHI believes could result in a potential violation of, or would be potentially impermissible under, any healthcare laws, rules or regulations applicable to Merck GHI (or any other Merck & Co. affiliated company) as determined by either Merck GHI or counsel to the Company.

"Immediate Family Member" means a child**,** stepchild, grandchild, parent, stepparent, grandparent, spouse, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, including adoptive relationships, of a natural person referred to herein, and all trusts for the benefit of any such persons.

"Investor Manager" shall have the meaning set forth in Section 3.1(c) hereto.

"Liquidation Event" shall mean any voluntary or involuntary liquidation, dissolution or winding up of the Company, including a Deemed Liquidation Event.

"Losses" means items of loss and deduction of the Company determined according to Section 6.2.

"Major Holder" means, at any time, (i) each holder of Preferred Units, and (ii) each Member (including its Immediate Family Members and Affiliates) who holds of record not less than 2,000,000 Units (such number adjusted for Unit splits, combinations and similar transactions occurring after the date hereof).

"Majority in Interest" means, at any time, a Member or Members which own more than 50% of the total Units outstanding at such time, plus one Unit (treating all Preferred Units on an as-converted to Common Unit basis).

"Majority of the Board" means, at any time, a combination of any of the then Managers constituting a majority of the votes of all of the Managers who are then elected and qualified.

"Member" means each Person who is a holder of a Membership Interest in the Company as of the date hereof and each Person who may hereafter be admitted as a Member in accordance with the terms of this Agreement. The Members shall constitute the "members" (as that term is defined in the Delaware Act) of the Company.

"Member Minimum Gain" with respect to each Member Nonrecourse Debt, means the amount of Company Minimum Gain (as determined according to Treasury Regulation Section 1.704-2(d)(1)) that would result if such Member Nonrecourse Debt were treated as a nonrecourse liability, determined in accordance with Treasury Regulation Section 1.704-2(i)(3).

"Member Nonrecourse Debt" has the meaning set forth in Treasury Regulation Section 1.704-2(b)(4), substituting the term "Company" for the term "partnership" and the term "Member" for the term "partner" as the context requires.

"Member Nonrecourse Deduction" has the meaning set forth in Treasury Regulation Section 1.704-2(i), substituting the term "Member" for the term "partner" as the context requires.

"Members Schedule" shall have mean the schedule of all Members maintained by the Company pursuant to Section 5.1 hereunder setting forth the name of each Member, the number and type of Units held by them and their respective Percentage Interest.

"Membership Interest" means the interest acquired by a Member in the Company, including such Member's right (based on the type and class and/or series of Unit or Units held by such Member), as applicable, (A) to a distributive share of Profits, Losses, and other items of income, gain, loss, deduction and credits of the Company, (B) to a distributive share of the assets of the Company, (C) to vote on, consent to or otherwise participate in any decision of the Members, and (D) to any and all other benefits to which such Member may be entitled as provided in this Agreement or the Delaware Act.

"Merck GHI" means Merck Global Health Innovation Fund, LLC.

"New Securities" means, collectively, equity securities of the Company, whether or not currently authorized, as well as rights, options, or warrants to purchase such equity securities, or securities of any type whatsoever that are, or may become, convertible or exchangeable into or exercisable for such equity securities.

"Noncompensatory Option" has the meaning set forth in Treasury Regulation Section 1.721-2(f).

"Nonrecourse Deductions" has the meaning set forth in Treasury Regulation Section 1.704-2(b) (substituting the term "Company" for the term "partnership" as the context requires).

"Original Issue Price" shall mean, with respect to the Series A Preferred Units, the Original Series A Issue Price, and, with respect to the Series B Preferred Units, the Original Series B Issue Price.

"Original Series A Issue Price" shall mean, for each Series A Preferred Unit issued at either the Initial Closing or any Required Milestone Closing under the Series A Purchase Agreement, or the CV II Series A Warrant, $0.73527 per Series A Preferred Unit (as adjusted for unit splits, reverse unit splits and similar actions occurring after the date hereof in respect of the Series A Preferred Units), and, for each Series A Preferred Unit issued at any Optional Milestone Closing under the Series A Purchase Agreement, $0.85 per Series A Preferred Unit (as adjusted for unit splits, reverse unit splits and similar actions occurring after the date hereof in respect of the Series A Units). The Original Series A Issue Price for the applicable Series A Preferred Units are as set forth on Schedule D attached hereto.

"Original Series B Issue Price" shall mean $0.70 per Series B Preferred Unit (as adjusted for unit splits, reverse unit splits and similar actions occurring after the date hereof in respect of the Series B Preferred Units).

"Percentage Interest" with respect to a Member means, at any time, such Member's ownership interest in the Company expressed as a percentage based upon the number of Units held by such Member as it relates to the total outstanding Units (treating all Preferred Units on an as-converted to Common Units basis). Each Member's Percentage Interest shall be reflected on the Member's Schedule, as amended from time to time in accordance herewith.

"Person" means any individual, corporation, partnership, limited liability company, trust, joint venture, governmental entity or other unincorporated entity, association or group.

"Preference Units" means, collectively, the Common Preference Units and the Series A Preference Units.

"Preferred Units" means, collectively, the Series A Preferred Units and the Series B Preferred Units.

"Profits" means items of income and gain of the Company determined according to Section 6.2.

"Public Offering" shall mean the sale by the Company or its successor of its equity securities to the public in a firm commitment underwriting pursuant to a registration statement filed pursuant to the Securities Act of 1933, as amended.

"Quarterly Estimated Tax Amount" of a Member for any calendar quarter of a Fiscal Year means the excess, if any of (i) the product of (A) ¼ in the case of the first calendar quarter of the Fiscal Year, ½ in the case of the second calendar quarter of the Fiscal Year, ¾ in the case of the third calendar quarter of the Fiscal Year, and 1 in the case of the fourth calendar quarter of the Fiscal Year and (B) the Member's Estimated Tax Amount for such Fiscal Year over (ii) all distributions previously made during such Fiscal Year to such Member.

"Qualified Future Financing" shall mean an equity or convertible note bridge financing by the Company (including a Series C Preferred Unit or other senior or pari passu security to the Series A Preferred Units and/or the Series B Preferred Units) that is approved by the Board and a Majority in Interest; provided that in connection with such financing: (x) the preference (including the participation right in Section 7.2(c)) payable to the holders of the Series A Preferred Units and the Series B Preferred Units hereunder, pursuant to either of Sections 7.2, 7.5 and 10.2, is not reduced (provided that any additional preference ahead of or pari passu with the Series B Preferred Units and the Series A Preferred Units resulting from such financing shall not be deemed a reduction for this purpose and provided further that the fact that additional Units will be outstanding will not be deemed a reduction of the participation right in Section 7.2(c)) for this purpose), (y) there is no reduction or other negative adjustment to the Series A Preferred Return, and (z) there is no waiver of any resulting adjustment to the Conversion Prices applicable to the Preferred Units or a conversion or exchange (forced or otherwise) of the Preferred Units to Common Units or any other security (other than a conversion into Common Units (or common stock) in connection with a Qualified Public Offering as herein provided), or any penalty or material adverse consequence targeting only investors who fail to participate in the Qualified Future Financing (excluding for this purpose proportionate dilution due to the failure to so participate).

"Qualified Public Offering" shall mean a Public Offering with an aggregate offering price of not less than $30,000,000 placing a pre-money valuation on the Company (based on the closing price for the Public Offering) of not less than $250,000,000.

"Required Preferred Consent" shall mean, collectively, the Required Series A Consent and the Required Series B Consent.

"Required Series A Consent" shall have the meaning set forth in Section 4.9 hereto.

"Required Series B Consent" shall have the meaning set forth in Section 4.10 hereto.

"Revised Partnership Audit Procedures" means the provisions of Subchapter C of Subtitle A, Chapter 63 of the Code, as amended by the Bipartisan Budget Act of 2015, P.L. 114-74 (together with any subsequent amendments thereto, Treasury Regulations promulgated thereunder, and published administrative interpretations thereof).

"Series A Preference Units" means the Common Units issued to each holder of Series A Preferred Units as of the date hereof pursuant to Section 5.1(a)(ii). The Series A Preference Units issuable to each such holder of Series A Preferred Units is set forth on Schedule C hereto opposite each such holder's name under the column titled "Series A Preference Units".

"Series A Preferred Return" means an annual non-compounded amount with respect to each outstanding Series A Preferred Unit equal to the product of (x) the Series A Percentage, and (y) the Series A Unreturned Capital Value for each such Unit, which shall accrue as provided herein to the extent not paid.

"Series A Preferred Return Percentage" means 4%.

"Series A Preferred Units" means the Units designated as Series A Preferred Units hereunder, which Units shall have the designations, preferences and/or special rights set forth in this Agreement applicable to such class of Units.

"Series A Purchase Agreement" means the Series A Preferred Unit Purchase Agreement dated as of March 28, 2013, as amended, among the Company and the other parties thereto.

"Series A Unreturned Capital Value" means, for each Series A Preferred Unit at any time outstanding, the amount equal to the Original Series A Issue Price for such Series A Preferred Unit, reduced by the aggregate amount of all distributions made by the Company in respect of such Series A Preferred Unit hereunder, other than Tax Distributions and distributions in respect of Series A Preferred Return. As of the date hereof, the aggregate Series A Unreturned Capital Value is $54,923,430.

"Series B Bridge Financing" means the bridge note and warrant financing conducted by the Company during 2016 and 2017 pursuant to which the Company issued in the aggregate $25,586,822 in bridge notes, together with warrants and Common Units in connection therewith.

"Series B Bridge Warrants" means the warrants to purchase Series B Preferred Units issued in connection with the Series B Bridge Financing.

"Series B Common Warrants" means the warrants to purchase Common Units issued pursuant to the Series B Purchase Agreement.

"Series B Commitment Amount" means the amount of Series B Preferred Units each Member party to the Series B Commitment Letter agreed to purchase at the initial closing under the Series B Purchase Agreement.

"Series B Commitment Letter" means the letter agreement dated June 30, 2017 pursuant to which certain Members committed, among other things, to purchase a minimum amount of Series B Preferred Units at the initial closing under the Series B Purchase Agreement, subject to the terms and conditions therein set forth.

"Series B Preferred Units" means the Units designated as Series B Preferred Units hereunder, which Units shall have the designations, preferences and/or special rights set forth in this Agreement applicable to such class of Units.

"Series B Purchase Agreement" means the Series B Preferred Unit Purchase Agreement dated as of the date hereof among the Company and the purchasers of Series B Preferred Units party thereto providing for the issuance of up to 92,857,143 Series B Preferred Units, as such agreement may be amended from time to time in accordance therewith.

"Series B Unreturned Capital Value" means, for each Series B Preferred Unit at any time outstanding, the amount equal to the Original Series B Issue Price for such Series B Preferred Unit, reduced by the aggregate amount of all distributions made by the Company in respect of such Series B Preferred Unit hereunder, other than Tax Distributions. As of the date

hereof, after giving effect to the issuance of Series B Preferred Units at the Initial Closing pursuant to the Series B Purchase Agreement (inclusive of the conversion in full of the convertible promissory notes issued in the Series B Bridge Financing), the aggregate Series B Unreturned Capital Value is $35,888,910.

"Tax Advances" means any distributions made by the Company pursuant to Section 7.3 hereof.

"Tax Amount" of a Member for a Fiscal Year means the product of (A) the Tax Rate for such Fiscal Year and (B) the Adjusted Taxable Income of the Member for such Fiscal Year with respect to its Units.

"Tax Matters Person" has the meaning set forth in Section 9.5.

"Tax Rate" shall mean the highest individual or corporate federal, state and local income tax rate applicable to any Member of the Company for the applicable period, taking into account for federal income tax purposes, the deductibility of state and local taxes, in each case as if such Member were a resident of New York City.

"Taxable Year" means the Company's taxable year ending on or about December 31 (or part thereof in the case of the Company's first and last taxable year), or such other year as is (i) required by Section 706 of the Code or (ii) determined by the Board (if no year is so required by Section 706 of the Code).

"Third Investor Manager" shall have the meaning set forth in Section 3.1(c) hereto.

"Transaction Bonus Plan" shall mean a bonus plan that may be established by the Company with the approvals contemplated herein, including Section 5.1(d), pursuant to which senior management of the Company employed at the time of any Liquidation Event would be entitled to additional compensation. Such plan, if established, may (i) provide that the allocation of such bonus pool will be determined by the Company's Chief Executive Officer, as approved by the Board, (ii) provide that participation in such bonus pool will be subject to the participants: (A) assisting the Company in the Liquidation Event, (B) remaining employed with the Company through the Liquidation Event, and if requested, for a specified period thereafter not to exceed 12 months, and (C) delivering, if requested, a standard employee release in favor of the Company and its stakeholders prior to or upon consummation of such Liquidation Event, and (iii) be on such other terms and conditions as the Board shall approve taking into account the effects such plan would reasonably be expected to have on any potential acquiror of the Company and the tax consequences to the Company and the participants with a view toward implementing the plan in a tax efficient manner.

"Transfer" means any direct or indirect sale, transfer, conveyance, assignment, pledge, hypothecation, gift, delivery or other disposition.

"Treasury Regulations" means the final or temporary regulations that have been issued by the U.S. Department of Treasury pursuant to its authority under the Code, and any successor regulations.

"Unit" means a unit representing a fractional part of the Membership Interests of all of the Unitholders and shall include all types and classes and/or series of Units; provided that any type or class or series of Unit shall have the designations, preferences and/or special rights set forth in this Agreement and the Membership Interests represented by such type or class or series of Unit shall be determined in accordance with such designations, preferences and/or special rights. As of the date hereof, the Units shall consist of the Common Units, the Series A Preferred Units and the Series B Preferred Units. Unless otherwise provided for hereunder, the Common Units and the Preferred Units shall be identical in all respects.

"Unitholder" means with respect to any Unit, the record holder thereof as evidenced on the Members Schedule.

"Warrants" shall mean the Series B Bridge Warrants, the Series B Common Warrants and all other warrants issued from time to time by the Company, with Board approval, and designated as "Warrant" for purposes of this Agreement.

1.2 Other Definitional Provisions. Capitalized terms used in this Agreement which are not defined in this Article I have the meanings contained elsewhere in this Agreement. Defined terms used in this Agreement in the singular shall import the plural and vice versa.

ARTICLE II
Organization of the Company

2.1 Formation.

(a) This Agreement shall constitute the "limited liability company agreement" (as that term is used in the Delaware Act) of the Company. The rights, powers, duties, obligations and liabilities of the Members shall be determined pursuant to the Delaware Act and this Agreement. To the extent that the rights, powers, duties, obligations and liabilities of any Member are different by reason of any provision of this Agreement than they would be in the absence of such provision, this Agreement shall, to the extent permitted by the Delaware Act, control.

(b) Any officer of the Company as an "authorized person" within the meaning of the Delaware Act, is hereby authorized, at any time that the applicable Member(s) have approved an amendment to the Certificate in accordance with the terms hereof, to promptly execute, deliver and file such amendment in accordance with the Delaware Act.

(c) The Company shall, to the extent permissible, elect to be treated as a partnership for federal, state and local income tax purposes, and each Member and the Company shall file all tax returns and shall otherwise take all tax and financial reporting positions in a manner consistent with such treatment and no Member shall take any action inconsistent with such treatment. The Company shall not be deemed a partnership or joint venture for any other purpose.

2.2 Name. The name of the Company is "ElectroCore, LLC" or such other name or names as the Board may from time to time designate; provided, that the name shall always contain the words "Limited Liability Company", "LLC" or "L.L.C."

2.3 Registered Office; Agent. The Company shall maintain a registered office and agent in the State of Delaware as determined by the Board.

2.4 Term. The term of existence of the Company shall be as stated in the Certificate, unless the Company is dissolved in accordance with the provisions of this Agreement.

2.5 Purposes and Powers. The purposes and character of the business of the Company shall be to transact any or all lawful business for which limited liability companies may be organized under the Delaware Act. The Company shall have any and all powers which are necessary or desirable to carry out the purposes and business of the Company, including the ability to incur and guaranty indebtedness, to the extent the same may be legally exercised by limited liability companies under the Delaware Act. Notwithstanding anything herein to the contrary, nothing set forth herein shall be construed as authorizing the Company to possess any purpose or power, or to do any act or thing, forbidden by law to a limited liability company organized under the laws of the state of its organization.

ARTICLE III
Management of the Company

3.1 Board of Managers.

(a) Establishment. The Prior Agreement established a committee (the "Board" or the "Board of Managers") comprised of natural persons (the "Managers") having the authority and duties to manage the business and affairs of the Company as set forth therein (and as set forth in this Agreement following its effective date). Except as otherwise provided herein, any decisions to be made by the Board shall require the approval of a Majority of the Board. Except as provided in the immediately preceding sentence, no Manager acting alone, or with any other Manager or Managers, shall have the power to act for or on behalf of, or to bind the Company. Each Manager shall be a "manager" (as that term is defined in the Delaware Act) of the Company, but, notwithstanding the foregoing, no Manager shall have any rights or powers beyond the rights and powers granted to such Manager in this Agreement. Managers need not be residents of the State of Delaware. The Board has established the following committees as of the date hereof: Finance Committee, Compensation Committee and Audit Committee.

(b) Powers. The business and affairs of the Company shall be managed by or under the direction of the Board, other than to the extent delegated to an officer of the Company by the Board. Without limiting the foregoing, Board approval (including the Merck Manager and the CV II Manager) will be required for the Company to (i) commence any pivotal clinical trial by the Company not provided for in the then current operating budget approved by the Board, or (ii) hire or terminate the employment of the Chief Executive Officer of the Company, and any of his or her direct reports or any senior officer of the Company.

(c) Number of Managers; Term of Office. The authorized number of Managers constituting the entire Board from and after the date hereof shall be nine (9) consisting of:

(i) so long as the Founding Investors (together with their Immediate Family Members and Affiliates) hold in the aggregate at least 7,500,000 Units (such number adjusted for Unit splits, combinations and similar transactions occurring after the date hereof), one person designated by each Founding Investor (or, upon the death of any Founding Investor, the majority vote of all Units held by such deceased Founding Investor's Immediate Family Members and Affiliates) (the "Founder Managers"). As of the date hereof, the Founder Managers shall be Joseph P. Errico, Dr. Thomas J. Errico and Kathryn Theofilos;

(ii) so long as Merck GHI (together with its Affiliates) holds at least 2,500,000 Units (such number adjusted for Unit splits, combinations and similar transactions occurring after the date hereof), (A) one Manager shall be designated by Merck GHI (the "Merck Manager"), and (B) Merck GHI shall have the right to designate one member to each committee of the Board. As of the date hereof, the Merck Manager shall be David Rubin;

(iii) so long as CV II (together with its Affiliates) holds at least 2,500,000 Units (such number adjusted for Unit splits, combinations and similar transactions occurring after the date hereof), (A) one Manager shall be designated by CV II (the "CV II Manager"), and (B) CV II shall have the right to designate one member to each committee of the Board. As of the date hereof, the CV II Manager shall be Dr. Peter Staats;

(iv) one Manager shall be designated mutually by Merck GHI and CV II (the "Third Investor Manager"). As of the date hereof, the Third Investor Manager shall be Trevor Moody. The Managers designated pursuant to subsections (ii), (iii) and (iv) shall be referred to herein as the "Investor Managers". Notwithstanding anything herein to the contrary, the Third Investor Manager shall not be removed from the Board from and after the date hereof without the prior approval of Merck GHI and CV II (so long as such party (including its Affiliates) holds at least 10,000,000 Preferred Units (such number adjusted for unit splits, combinations and similar transactions occurring after the date hereof in respect of the Preferred Units); and

(v) the remaining Managers shall be persons not Affiliates of any other Member (which shall not be deemed to include any portfolio company of Merck GHI or CV II) and shall be designated by the holders of a majority of the outstanding Units (and be reasonably acceptable to each of the Merck Manager and the CV II Manager), which initial Managers designated pursuant to this clause (v) shall be Frank Amato, James L.L. Tullis and Nicholas Colucci. Notwithstanding anything herein to the contrary, Mr. Tullis shall not be removed from the Board by the Members from and after the date hereof without the prior approval of Merck GHI and CV II (so long as such party (including its Affiliates) holds at least 10,000,000 Preferred Units (such number adjusted for unit splits, combinations and similar transactions occurring after the date hereof in respect of the Preferred Units).

(d) Removal. Subject to the final sentence of Section 3.1(c)(v), any Manager of the Company may be removed from the Board, with or without cause, in the manner allowed by law and this Agreement, but with respect to a Manager designated by a specific Member or Members or class or classes of Members pursuant to Section 3.1(c)(i) through 3.1(c)(v), a removal without cause shall only occur upon the vote or written consent of the Member entitled to designate such Manager (or if designated by two or more Members, by any of such Members; provided such Manager's replacement shall be designated by the Members entitled to designate such Manager pursuant to the applicable Section 3.1(c)(i) through 3.1(c)(v)).

(e) Resignation; Vacancies. A Manager may resign at any time by giving written notice to that effect to the Board. Any such resignation shall take effect at the time of the receipt of that notice or any later effective time specified in that notice; and, unless otherwise specified in that notice, the acceptance of the resignation shall not be necessary to make it effective. Any vacancy, whether due to death, resignation or removal, of any Manager shall be filled only by the vote or consent of the persons entitled to designate such former Manager pursuant to Section 3.1(c)(i) through (v) above.

(f) Meetings of the Board. The Board shall meet at such time and at such place (either within or outside of the State of Delaware) as the Board may designate. Special meetings of the Board shall be held on the call of the Chairman (as herein defined) or any one Manager upon at least two business days (if the meeting is to be held in person, and not counting the day notice of such meeting is delivered) or one business day (if the meeting is to be held by telephone communications or video conference, and not counting the day notice of such meeting is delivered) written notice to the Managers, or upon such shorter notice as may be approved by all of the Managers. Any Manager may waive such notice as to himself. A record shall be maintained by the Secretary of the Company of each meeting of the Board.

(i) Conduct of Meetings. Any meeting of the Board may be held in person, telephonically or by video conference.

(ii) Quorum. A Majority of the Board (including at least two Investor Managers) at a properly noticed meeting shall constitute a quorum of the Board for purposes of conducting business; provided that in the event at least two Investor Managers fail to attend, a meeting shall be postponed for at least two business days, with notice of the meeting resulting therefrom given in accordance with this clause (f), and in the meeting resulting therefrom, a quorum shall be a Majority of the Board. At all times when the Board is conducting business at a meeting of the Board, a quorum of the Board must be present at such meeting. If a quorum shall not be present at any meeting of the Board, then the Managers present at the meeting may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum shall be present. A Manager may vote or be present at a meeting either in person, telephonically or by proxy.

(iii) Attendance and Waiver of Notice. Attendance of a Manager at any meeting shall constitute a waiver of notice of such meeting, except where a Manager attends a meeting for the express purpose of objecting to the transaction of any business on the ground that the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the Board need be specified in the notice or waiver of notice of such meeting.

(iv) Actions Without a Meeting. Notwithstanding any provision contained in this Agreement, any action of the Board may be taken by written consent without a meeting. Any such action taken by the Board without a meeting shall be effective only if the consent or consents are in writing, set forth the action so taken, and are delivered to all Managers prior to the effective date of such action and thereafter signed by all of the members of the Board required to carry such action as if such action were taken at a duly called meeting with the entire Board present. An email communication from a Manager confirming his consent shall be sufficient if promptly followed by delivery to the Company of a signed consent.

(g) Compensation of the Managers. Managers, as such, shall not receive any stated salary for their services as a Manager, but shall receive such compensation for their services as may be from time to time agreed upon by a majority of the disinterested members of the Board, including at least two Investor Managers. In addition, Managers (and observers designated pursuant to Section 3.1(i) below) shall be entitled to reimbursement for the reasonable out-of-pocket expenses (incurred in accordance with any written Company policies which Managers have received), if any, incurred in attending all Board and any committee meetings, as well as other expenses approved by the Board in connection with their work on behalf of the Company; provided, that nothing contained in this Agreement shall be construed to preclude any Manager from serving the Company or any of its subsidiaries in any other capacity and receiving compensation for such service.

(h) Chairman of the Board. A Majority of the Board may elect any one of the Managers to be the Chairman of the Board (the "Chairman"). As of the date hereof, the Chairman is Joseph P. Errico. At any time, the Chairman, if any, can be removed from his or her position as Chairman by a Majority of the Board. The Chairman, in his or her capacity as the Chairman of the Board, shall not have any of the rights or powers of an officer of the Company. The Chairman shall preside at all meetings of the Board and at all meetings of the Members at which he or she shall be present.

(i) Board Observers. Merck GHI, so long as it holds of record any Preferred Units, shall be entitled to have one representative attend all meetings of the Board in a nonvoting observer capacity and, in this respect, shall have the right to receive copies of all notices, minutes, consents, and other materials that the Company provides to its Managers; provided, however, that such representative shall agree to hold in confidence all information so provided; and provided further, that the Company reserves the right to withhold any information and to exclude such representative from any meeting or portion thereof if access to such information or attendance at such meeting could adversely affect the attorney-client privilege between the Company and its counsel or result in disclosure of trade secrets or a conflict of interest. CV II, so long as it holds of record any Preferred Units, shall be entitled to have one representative attend all meetings of the Board in a nonvoting observer capacity and, in this respect, shall have the right to receive copies of all notices, minutes, consents, and other materials that the Company provides to its Managers; provided, however, that such representative shall agree to hold in confidence all information so provided; and provided further, that the Company reserves the right to withhold any information and to exclude such

representative from any meeting or portion thereof if access to such information or attendance at such meeting could adversely affect the attorney-client privilege between the Company and its counsel or result in disclosure of trade secrets or a conflict of interest.

3.2 Officers.

(a) Appointment of Officers. The Board may appoint individuals as officers ("officers") of the Company, which may include a Chief Executive Officer, President, a Chief Financial Officer, a Secretary and such other officers (such as a Chief Operating Officer, a Treasurer or any number of Vice Presidents) as the Board deems advisable. No officer need be a Member. An individual may be appointed to more than one office. No officer of the Company shall have any rights or powers beyond the rights and powers granted to such officer in this Agreement. Certain officers of the Company as of the date hereof are listed on the attached Schedule A.

(b) Duties of Officers Generally. Under the direction of and, at all times, subject to the authority of the Board, the officers shall have the discretion to manage the day-to-day business, operations and affairs of the Company in the ordinary course of its business, to make all decisions, except those expressly reserved or requiring the approval of the Board hereunder, affecting the day-to-day business, operations and affairs of the Company in the ordinary course of its business and to take all such actions as they deem necessary or appropriate to accomplish the foregoing, in each case, unless the Board shall have previously restricted (specifically or generally) such powers. In addition, the officers shall have such other powers and duties as may be prescribed by the Board or this Agreement. Subject to the supervision and direction of the Board, the Chief Executive Officer shall have the power and authority to delegate to any agents or employees of the Company rights and powers of officers of the Company to manage and control the day-to-day business, operations and affairs of the Company in the ordinary course of its business, as the Chief Executive Officer may deem appropriate from time to time, in each case, unless the Board shall have previously restricted (specifically or generally) such powers. Notwithstanding the foregoing, without limiting the rights and powers of the Board or any other approval right herein granted to the holders of Preferred Units, no officer shall enter into or consummate any of the following transactions without the prior approval of the Board (or a duly authorized committee thereof): (i) any material transaction outside of the ordinary course of the Company's business consistent with past practice, unless such transaction is provided for within the then current operating budget approved by the Board or obligates the Company for an amount not in excess of $100,000; (ii) the issuance of any Units or other security of the Company, including any security convertible into any security, other than the grant by the Board or the Compensation Committee (or its designee) of Units to employees in connection with their services to the Company under any plan approved by the Board; (iii) any sale of any material portion of the Company's assets (whether by asset purchase, stock purchase, merger or otherwise), except in the ordinary course of the Company's business; (iv) declare or pay any dividend or make any other distributions in respect of any Units (other than required tax distributions hereunder, or other distributions required hereunder in respect of the Preferred Units); (v) redeem or purchase or otherwise acquire any Units, other than repurchases from officers, Managers, consultants or other persons who performed services for the Company in connection with the cessation of such employment or service for an amount not in excess of $50,000 individually, or $250,000 in the aggregate; (vi) incur any indebtedness for borrowed

money in excess of $100,000 individually or $250,000 in the aggregate (other than purchase money indebtedness); (vii) approve any material deviation from the then current operating budget as approved by the Board; (viii) any sale of assets in excess of $100,000 in the aggregate outside of the ordinary course of the business; or (ix) any other acts requiring the consent or approval of the Board under this Agreement.

(c) Authority of Officers. Subject to Section 3.2(b), any officer of the Company shall have the right, power and authority to transact business in the name of the Company or to act for or on behalf of or to bind the Company. With respect to all matters within the ordinary course of business of the Company, third parties dealing with the Company may rely conclusively upon any certificate of any officer to the effect that such officer is acting on behalf of the Company.

(d) Removal, Resignation and Filling of Vacancy of Officers. The Board may remove any officer, for any reason or for no reason, at any time, subject to the terms of any then-existing employment agreement. Any officer may resign at any time by giving written notice to the Board, and such resignation shall take effect at the date of the receipt of that notice or any later time specified in that notice; provided, that unless otherwise specified in that notice, the acceptance of the resignation shall not be necessary to make it effective. Any such resignation shall be without prejudice to the rights, if any, of the Company or such officer under this Agreement or any employment or unit repurchase agreement then in effect. A vacancy in any office because of death, resignation, removal or otherwise shall be filled in the manner prescribed in this Agreement for regular appointments to that office.

(e) Compensation of Officers. The officers shall be entitled to receive compensation from the Company as determined by the Board.

(f) Chief Executive Officer; President. Under the direction of and, at all times, subject to the authority of the Board and the limitations imposed by Section 3.2(b), the Chief Executive Officer shall have general supervision over the day-to-day business, operations and affairs of the Company and shall perform such duties and exercise such powers as are incident to the office of president under the GCL. The Chief Executive Officer shall be the highest ranking corporate officer of the Company, shall report directly to the Board and shall have such other powers and perform such other duties as may from time to time be prescribed by the Board. The President shall perform such duties as may be assigned to him from time to time by the Board or the Chief Executive Officer. In the absence or disability of the Chief Executive Officer, the President may, unless otherwise determined by the Board, exercise the powers and perform the duties pertaining to the office of Chief Executive Officer.

(g) Chief Financial Officer. The Chief Financial Officer shall keep and maintain, or cause to be kept and maintained, adequate and correct books and records of accounts of the properties and business transactions of the Company, including accounts of its assets, liabilities, receipts, disbursements, gains, losses, capital and Units, and, in general, shall perform all the duties incident to the office of the chief financial officer of a corporation organized under the GCL. The Chief Financial Officer shall have the custody of the funds and securities of the Company, and shall keep full and accurate accounts of receipts and disbursements in books belonging to the Company. The Chief Financial Officer shall have such other powers and perform such other duties as may from time to time be prescribed by the Board and/or the Chief Executive Officer, subject to the limitations imposed by Section 3.2(b).

(h) Secretary. The Secretary shall (i) keep the minutes and resolutions of any meetings of the Members and of the Board in one or more books provided for that purpose; (ii) see that all notices to be given by the Company are duly given in accordance with the provisions of this Agreement and as required by law; (iii) be custodian of the company records; (iv) keep a register of the addresses of each Member which shall be furnished to the Secretary by such Member; (v) have general charge of the Members Schedule; and (vi) in general perform all duties incident to the office of the secretary of a corporation organized under the GCL. The Secretary shall have such other powers and perform such other duties as may from time to time be prescribed by the Board and/or the Chief Executive Officer, subject to the limitations imposed by Section 3.2(b).

(i) Other Officers. All other officers of the Company shall have such powers and perform such duties as may from time to time be prescribed by the Board and/or the Chief Executive Officer, subject to the limitations imposed by Section 3.2(b).

3.3 Fiduciary Duties. The Board, in the performance of its duties as such, shall owe to the Members duties of loyalty and due care of the type owed by the directors of a corporation to the stockholders of such corporation under the laws of the State of Delaware and shall discharge such duties in good faith, with the care an ordinarily prudent person in a like position would exercise under similar circumstances, and in a manner the Board reasonably believes to be in the best interests of the Company. Notwithstanding anything contained herein to the contrary, Investor Managers (to the extent not designated by one or more Founder Investors or their respective Affiliates and related persons) shall not have any duty or obligation to bring any "corporate opportunity" to the Company or any of its subsidiaries. The officers, in the performance of their duties as such, shall owe to the Members duties of loyalty and due care of the type owed by the officers of a corporation to the stockholders of such corporation under the laws of the State of Delaware.

3.4 Performance of Duties; Liability of Board and Officers. In performing his, her or its duties, each Manager and the officers shall be entitled to rely in good faith on the provisions of this Agreement and on information, opinions, reports, or statements (including financial statements and information, opinions, reports or statements as to the value or amount of the assets, liabilities, Profits or Losses of the Company or any facts pertinent to the existence and amount of assets from which distributions to Members might properly be paid), of the following other Persons or groups: (A) one or more officers or employees of the Company; (B) any attorney, independent accountant, or other Person employed or engaged by the Company; or (C) any other Person who has been selected with reasonable care by or on behalf of the Company, in each case as to matters which such relying Person reasonably believes to be within such other Person's professional or expert competence. The preceding sentence shall in no way limit any Person's right to rely on information to the extent provided in Section 18-406 of the Delaware Act. No person who is a Manager or an officer of the Company, or any combination of the foregoing, shall be personally liable under any judgment of a court, or in any other manner, for any debt, obligation, or liability of the Company, whether that liability or obligation arises in contract, tort, or otherwise, solely by reason of being a Manager or an officer of the Company or any combination of the foregoing, except to the extent of their gross negligence or willful misconduct.

3.5 Indemnification. Notwithstanding Section 3.3, no Manager nor any officer shall be liable, responsible or accountable for damages or otherwise to the Company, or to the Members, and, to the fullest extent allowed by law, the Managers and each officer shall be indemnified and held harmless by the Company, including advancement of reasonable attorneys' fees and other expenses from and against all claims, liabilities, and expenses arising out of any management of Company affairs; provided that (A) such person's course of conduct was pursued in good faith and believed by him or it to be in the best interests of the Company and was reasonably believed by him or it to be within the scope of authority conferred on such person pursuant to this Agreement and (B) such course of conduct did not constitute gross negligence or willful misconduct on the part of such Manager or officer and otherwise was in accordance with the terms of this Agreement. The rights of indemnification provided in this Section are intended to provide indemnification of the Managers and the officers to the fullest extent permitted by the GCL regarding a corporation's indemnification of its directors and officers and will be in addition to any rights to which the Managers or officers may otherwise be entitled by contract or as a matter of law and shall extend to his heirs, personal representatives and assigns. The absence of any express provision for indemnification herein shall not limit any right of indemnification existing independently of this Section. Each Manager's and each officer's right to indemnification pursuant to this Section may be conditioned upon the delivery by such person of a written undertaking to repay such amount if such person is determined pursuant to this Section or adjudicated to be ineligible for indemnification, which undertaking shall be an unlimited general obligation.

3.6 Finance Committee.

(a) Establishment. There is hereby established a six person committee of the Board (the "Finance Committee") comprised of the three Founder Managers and the three Investor Managers having the authority and duties to manage the business and affairs of the Company as set forth herein. Except as otherwise provided herein, any decisions to be made by the Finance Committee shall require the affirmative vote or written consent of a majority of the number of members (including at least two of the Investor Managers) constituting the entire Finance Committee. Except as provided in the immediately preceding sentence, no member of the Finance Committee acting alone, or with any other member of the Finance Committee, shall have the power to act for or on behalf of, or to bind, either the Company or the Finance Committee.

(b) Approval Requirement. Any of the following items shall require the prior approval of the Finance Committee (including at least two of the Investor Managers) in accordance with subsection (a) of this Section:

(i) the adoption of the Company's annual budget and operating plan, and material changes thereto;

(ii) the incurrence by the Company of aggregate indebtedness for borrowed money outstanding at any time in an amount in excess of $500,000 but not greater than $1,500,000;

(iii) the incurrence by the Company of any expenditures which are not set forth in the then approved annual budget to the extent in excess of $100,000 individually or $250,000 in the aggregate;

(iv) the entering into any agreement or other transaction by the Company to acquire another company or the assets of another company for consideration in excess of $100,000 but less than $500,000;

(v) the entering into any agreement or other transaction by the Company outside of the ordinary course of its business with respect to any sale of any of its assets for consideration in excess of $100,000 unless the holders of the outstanding Preferred Units have received or shall receive in connection with such transaction (in the aggregate taking into account all distributions, other than tax distributions, received from the Company from the original issue date of such Units) an amount per outstanding Preferred Unit equal to or in excess of four times (4X) the Original Issue Price applicable to each such outstanding Preferred Unit;

(vi) any increase to the number of Units or options or profits interest available for issuance pursuant to any employee plan, other than as previously approved by the Board;

(vii) approving any change of the Company's independent public accountants;

(viii) entering into any joint ventures, partnerships or establishing non-wholly owned subsidiaries; or

(ix) approving any expansions by the Company into any business unrelated to neurostimulation.

ARTICLE IV
Members; Voting Rights

4.1 Meetings of Members.

(a) Generally. Meetings of the Members may be called by (i) the Board or (ii) by a Member or Members holding 10% or more of the then outstanding Units. All meetings of the Members shall be held telephonically or at the principal office of the Company or at such other place within or without the state of the Company's organization as may be determined by the Board. A record shall be maintained by the Secretary of the Company of each meeting of the Members.

(b) Notice of Meetings of Members. Written or printed notice stating the place, day and hour of the meeting and, in the case of a special meeting of the Members, describing the purposes for which the meeting is called shall be delivered not fewer than five

days, but not more than sixty days, before the date of the meeting, either personally or by any written method by which it is reasonable to expect that the Members would receive such notice not later than three business days prior to the date of the meeting, to each holder of Units (with a copy to the Secretary of the Company), by or at the direction of the Member(s) calling the meeting or the Board, as the case may be.

(c) Quorum. Except as otherwise provided herein or by applicable law, at any time, Units representing not less than a Majority in Interest (including a majority of each class of Preferred Units), represented in person or by proxy, shall constitute a quorum of Members for purposes of conducting business; provided that in the event that holders of a majority of any class of Preferred Units fail to attend, a meeting shall be postponed for at least two business days, with notice of the meeting resulting therefrom given in accordance with clause (b) above, and in the meeting resulting therefrom, a quorum shall be Units representing not less than a Majority in Interest. Once a quorum is present at the meeting of the Members, the subsequent withdrawal from the meeting of any Member prior to adjournment or the refusal of any Member to vote shall not affect the presence of a quorum at the meeting. If, however, such quorum shall not be present at any meeting of the Members, the Members entitled to vote at such meeting shall have the power to adjourn the meeting from time to time, without notice other than announcement at the meeting, until Members which own Units representing not less than a Majority in Interest shall be present or represented. Except as otherwise required by applicable law or as required herein, resolutions of the Members at any meeting of Members shall be adopted by the affirmative vote of Members holding not less than a Majority in Interest.

(d) Actions Without a Meeting. Unless otherwise prohibited by law, any action to be taken at a meeting of the Members may be taken without a meeting if a consent or consents in writing, setting forth the action so taken, shall be signed by a Member or Members holding not less than a Majority in Interest, or such higher percentage of Units as is expressly required hereunder to take such action. A record shall be maintained by the Secretary of the Company of each such action taken by written consent of a Member or Members.

4.2 Voting Rights. Except as specifically provided herein or otherwise required by applicable law, for all purposes hereunder, including for purposes of Article III hereof, (i) each Member shall be entitled to one vote for each Unit held by such Member, and (ii) the Units of all classes and series shall vote together as a single class on all such matters (on an as converted to Common Unit basis). A Member which owns Units may vote or be present at a meeting either in person or by proxy. When used herein, references to the vote of the Common Units shall, unless the applicable provision expressly provides otherwise, mean the vote of the then outstanding Common Units and the Preferred Units (on an as converted basis).

4.3 Registered Members. The Company shall be entitled to treat the owner of record of any Units as the owner in fact of such Unit for all purposes, and accordingly shall not be bound to recognize any equitable or other claim to or interest in such Unit on the part of any other person, whether or not it shall have express or other notice of such claim or interest, except as expressly provided by this Agreement or applicable law.

4.4 Limitation of Liability. Unless otherwise agreed to in a separate writing, no Member will be obligated personally for any debt, obligation or liability of the Company or of any of its subsidiaries or other Members by reason of being a Member, whether arising in contract, tort or otherwise. Except as otherwise provided under applicable law or expressly in this Agreement, no Member, in his or its capacity as such, will have any fiduciary or other duty to another Member with respect to the business and affairs of the Company or of any of its subsidiaries. No Member will have any responsibility to restore any negative balance in his or her Capital Account or to contribute to or in respect of the liabilities or obligations of the Company or of any of its subsidiaries or return distributions made by the Company.

4.5 Withdrawal; Resignation. A Member shall not cease to be a Member as a result of the Bankruptcy of such Member or as a result of any other events specified in § 18-304 of the Delaware Act. So long as a Member continues to own or hold any Units, such Member shall not have the ability to resign as a Member prior to the dissolution and winding up of the Company and any such resignation or attempted resignation by a Member prior to the dissolution or winding up of the Company shall be null and void. As soon as any Person who is a Member ceases to own or hold any Units, such Person shall no longer be a Member.

4.6 Death of a Member. The death of any Member shall not cause the dissolution of the Company. In such event the Company and its business shall be continued by the remaining Member or Members and the Units owned by the deceased Member shall automatically be transferred to such Member's heirs (provided that, within a reasonable time after such transfer, the applicable heirs shall sign a joinder to this Agreement acceptable to the Board).

4.7 Authority. No Member, in its capacity as a Member, shall have the power to act for or on behalf of, or to bind the Company.

4.8 Outside Activities. Subject to the terms of any written agreement by any Member to the contrary (including the non-competition agreements with employees of the Company or any of its subsidiaries), a Member may have business interests and engage in business activities in addition to those relating to the Company, including business interests and activities which compete with the Company, and no Member (unless such Member is an employee of the Company or one of its subsidiaries) shall have any duty or obligation to bring any "corporate opportunity" to the Company. Subject to the terms of any written agreement by any Member to the contrary, neither the Company nor any other Member shall have any rights by virtue of this Agreement in any business interests or activities of any Member.

4.9 Series A Preferred Protective Provisions. The Company shall not take any of the following actions without the prior written consent of holders of outstanding Series A Preferred Units holding of record a number of Series A Preferred Units that represent not less than the greater of (x) 66% of the total number of outstanding Series A Preferred Units, and (y) the GHI/CV II Series A Percentage; provided further that such consent shall also require the prior approval of each of Merck GHI and CV II (provided that if any such party no longer holds of record at least 10,000,000 Series A Preferred Units (such number subject to adjustment for Unit splits and similar events after the date hereof in respect of the Series A Preferred Units) the consent of such party shall no longer be required under the foregoing proviso, but without limiting clauses (x) and (y)) (the foregoing consent being referred to herein as the "Required Series A Consent"):

(i) amend the Company's organization and governance documents (including this Agreement) so as to adversely alter the rights, preferences, privileges of the Series A Preferred Units; provided that, notwithstanding anything herein to the contrary in this Section 4.9, the Required Series A Consent for purposes of this clause (i) as it relates to a Qualified Future Financing shall only require the consent of the holders of a majority of the total number of outstanding Series A Preferred Units (and, for the sake of clarity, neither clauses (x) and (y) above nor the proviso requiring the prior approval of each of Merck GHI and CV II shall apply);

(ii) create, or authorize the creation of, or issue or obligate itself to issue Units or any Membership Interest of any additional class or series unless the same ranks junior to the Series A Preferred Units with respect to the distribution of assets on the liquidation, dissolution or winding up of the Company, the payment of distributions (other than tax distributions) and rights of redemption, or increase the authorized number of Series A Preferred Units or increase the authorized number of Units of any additional class or series of Membership Interest unless the same ranks junior to the Series A Preferred Units with respect to the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of distributions (other than tax distributions) and rights of redemption; provided that, notwithstanding anything herein to the contrary in this Section 4.9, the Required Series A Consent for purposes of this clause (ii) as it relates to a Qualified Future Financing shall only require the consent of the holders of a majority of the total number of outstanding Series A Preferred Units (and, for the sake of clarity, neither clauses (x) and (y) above nor the proviso requiring the prior approval of each of Merck GHI and CV II shall apply);

(iii) pay or declare any distribution on any securities of the Company, other than (x) required tax distributions or (y) distributions in connection with a Liquidation Event approved in accordance with this Agreement and made in conformity with Article VII;

(iv) the incurrence by the Company of aggregate indebtedness for borrowed money outstanding at any time in an amount in excess of $1,500,000;

(v) redeem, purchase or otherwise acquire any securities of the Company, other than repurchases from officers, Managers, consultants or other persons who performed services for the Company in connection with the cessation of such employment or service for an amount not in excess of $250,000 individually;

(vi) change the number of Managers constituting the entire Board;

(vii) enter into any transaction with any officer, Manager or Member of the Company who holds 5% or more of the total outstanding Units, or any Affiliate or Immediate Family Member of any of the foregoing, except pursuant to the exercise of preemptive rights pursuant to Section 5.5 or in connection with a Qualified Future Financing

(provided any such person's participation in such Qualified Future Financing is on terms approved by the Board and identical to the terms of the other participants, and any participation by any such Affiliate is disclosed to the Board);

(viii) enter into any transaction with any Affiliate of the Company, except pursuant to the exercise of preemptive rights pursuant to Section 5.5 or in connection with a Qualified Future Financing (provided any such person's participation in such Qualified Future Financing is on terms approved by the Board and identical to the terms of the other participants, and any participation by any such Affiliate is disclosed to the Board);

(ix) the incurrence by the Company of any expenditures in any calendar year which are not set forth in the then approved annual budget to the extent in excess of $250,000 individually or $500,000 in the aggregate;

(x) effect a reclassification, reorganization or recapitalization of the outstanding membership interest of the Company; provided this clause (x) shall not apply to a Corporate Conversion in anticipation of (and conditioned upon) a Qualified Public Offering,

(xi) the entering into any agreement or other transaction by the Company to acquire another company or the assets of another company for consideration in excess of $500,000;

(xii) approve any Liquidation Event unless the holders of the outstanding Series A Preferred Units have received or shall receive in connection with such transaction (in the aggregate taking into account all distributions, other than tax distributions, received from the Company from the original issue date of such Units) an amount per outstanding Series A Preferred Unit equal to or in excess of three times (3X) the Original Series A Issue Price applicable to each such outstanding Series A Preferred Unit; or

(xiii) except as provided in Section 5.1(d) relating to the implementation of the Transaction Bonus Plan, approve any increase by more than 1% of the total outstanding Units to the number of Units or options or profits interest available for issuance pursuant to any employee plan.

4.10 Series B Preferred Protective Provisions. The Company shall not take any of the following actions without the prior written consent of holders of outstanding Series B Preferred Units holding of record a number of Series B Preferred Units that represent not less than the greater of (x) 55% of the total number of outstanding Series B Preferred Units, and (y) the GHI/CV II Series B Percentage; provided further that, with respect to Section 4.10(i) (except for the exceptions noted therein), such consent shall also require the prior approval of each of Merck GHI and CV II (the foregoing consent being referred to herein as the "Required Series B Consent"):

(i) amend the Company's organization and governance documents (including this Agreement) so as to adversely alter the rights, preferences, privileges of the Series B Preferred Units; provided that, notwithstanding anything herein to the contrary in this Section 4.10, the Required Series B Consent for purposes of this clause (i) as it relates to a Qualified Future Financing shall only require the consent of the holders of a majority of the total number of outstanding Series B Preferred Units (and, for the sake of clarity, neither clauses (x) and (y) above nor the proviso requiring the prior approval of each of Merck GHI and CV II shall apply);

(ii) create, or authorize the creation of, or issue or obligate itself to issue Units or any Membership Interest of any additional class or series unless the same ranks junior to the Series B Preferred Units with respect to the distribution of assets on the liquidation, dissolution or winding up of the Company, the payment of distributions (other than tax distributions) and rights of redemption, or increase the authorized number of Series B Preferred Units or increase the authorized number of Units of any additional class or series of Membership Interest unless the same ranks junior to the Series B Preferred Units with respect to the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of distributions (other than tax distributions) and rights of redemption; provided that, notwithstanding anything herein to the contrary in this Section 4.10, the Required Series B Consent for purposes of this clause (ii) as it relates to a Qualified Future Financing shall only require the consent of the holders of a majority of the total number of outstanding Series B Preferred Units (and, for the sake of clarity, neither clauses (x) and (y) above nor the proviso requiring the prior approval of each of Merck GHI and CV II shall apply);

(iii) pay or declare any distribution on any securities of the Company, other than (x) required tax distributions or (y) distributions in connection with a Liquidation Event approved in accordance with this Agreement and made in conformity with Article VII;

(iv) the incurrence by the Company of aggregate indebtedness for borrowed money outstanding at any time in an amount in excess of $1,500,000;

(v) redeem, purchase or otherwise acquire any securities of the Company, other than repurchases from officers, Managers, consultants or other persons who performed services for the Company in connection with the cessation of such employment or service for an amount not in excess of $250,000 individually;

(vi) change the number of Managers constituting the entire Board;

(vii) enter into any transaction with any officer, Manager or Member of the Company who holds 5% or more of the total outstanding Units, or any Affiliate or Immediate Family Member of any of the foregoing, except pursuant to the exercise of preemptive rights pursuant to Section 5.5 or in connection with a Qualified Future Financing (provided any such person's participation in such Qualified Future Financing is on terms approved by the Board and identical to the terms of the other participants, and any participation by any such Affiliate is disclosed to the Board);

(viii) enter into any transaction with any Affiliate of the Company, except pursuant to the exercise of preemptive rights pursuant to Section 5.5 or in connection with a Qualified Future Financing (provided any such person's participation in such Qualified Future Financing is on terms approved by the Board and identical to the terms of the other participants, and any participation by any such Affiliate is disclosed to the Board);

(ix) the incurrence by the Company of any expenditures in any calendar year which are not set forth in the then approved annual budget to the extent in excess of $250,000 individually or $500,000 in the aggregate;

(x) effect a reclassification, reorganization or recapitalization of the outstanding membership interest of the Company; provided this clause (x) shall not apply to a Corporate Conversion in anticipation of (and conditioned upon) a Qualified Public Offering,

(xi) the entering into any agreement or other transaction by the Company to acquire another company or the assets of another company for consideration in excess of $500,000;

(xii) approve any Liquidation Event unless the holders of the outstanding Series B Preferred Units have received or shall receive in connection with such transaction (in the aggregate taking into account all distributions, other than tax distributions, received from the Company from the original issue date of such Units) an amount per outstanding Series B Preferred Unit equal to or in excess of three times (3X) the Original Series B Issue Price applicable to each such outstanding Series B Preferred Unit; or

(xiii) except as provided in Section 5.1(d) relating to the implementation of the Transaction Bonus Plan, approve any increase by more than 1% of the total outstanding Units to the number of Units or options or profits interest available for issuance pursuant to any employee plan.

ARTICLE V
Units; Membership

5.1 Units Generally; Preference Units; Transaction Bonus Plan. (a) (i) The Membership Interests in the Company shall be represented by issued and outstanding Units, which may be divided into one or more types, classes or series, with each type or class or series having the rights and privileges, including voting rights, if any, set forth in this Agreement. As of the date hereof, the authorized capital of the Company shall consist of Common Units, Series A Preferred Units and Series B Preferred Units; provided, however the Board may from time to time create such additional classes or series of Membership Interests, to be designated as Common Units, preferred Units, or such other type of class or series of Membership Interests as the Board shall determine, as provided for herein (and subject to any consents required herein). The holders of record of the Membership Interests shall have such rights and obligations associated with such Membership Interests as are provided herein and in the Designation, should any be adopted, of any such class or series of Membership Interest authorized pursuant to this Agreement. The Company shall maintain an accurate record of the Units and Percentage Interests of all Members on the Members Schedule.

(ii) Effective as of the date of this Agreement, in exchange for, among other things, the elimination of the preference amount payable to the holders of the Series A Preferred Units pursuant to Section 7.2(a)(iii) of the Prior Agreement, each holder of record of Series A Preferred Units outstanding on the date hereof shall be issued a number of Common Units (rounded to the nearest whole Unit) equal to a fraction (x) the numerator of which shall equal the aggregate Original Series A Issue Price for such Series A Preferred Units held of record by such holder, and (y) the denominator of which shall equal 1.17. Effective as of the date of this Agreement, in exchange for, among other things, the elimination of the preference amount payable to the Common Investors pursuant to Section 7.2(a)(ii) of the Prior Agreement, each Common Investor shall be issued a number of Common Units (rounded to the nearest whole Unit) equal to a fraction (x) the numerator of which shall equal the Common Preference Amount for such Common Investor, and (y) the denominator of which shall equal 1.17. The Series A Preference Units and the Common Preference Units for each applicable Member is set forth on Schedule C hereto.

(iii) Any Common Units issued hereunder may, at the Board's discretion, and subject to any consent required hereunder, be issued as equity incentive intended to constitute "profits interests" (as such term is used for purposes of the Code) and the rules and regulations promulgated thereunder, including Rev. Proc. 93-27 and Rev. Proc. 2001-43. All such profits interests shall entitle its record owner to share in the appreciation in the fair market value of Company property from the date of issuance and not in any fair market value of Company property accrued prior to the issuance of such Units. Immediately prior to the issuance of each such Unit, the Capital Accounts of the Members shall be adjusted and all Company property shall be revalued pursuant to the definition of Book Value. No such Units shall be entitled to any retroactive allocation of the Company's income, gains, losses, deductions, credits, or other items. To the extent consistent with Section 706(d) of the Code and the Treasury Regulations promulgated thereunder, the Company's books may be closed at the time any Member is issued such profits interests (as though the Company's tax year had ended) or the Company may credit to the Member being issued such Units his or its pro rata allocations of the Company's income, gains, losses, deductions, credits and items for that portion of the Company's fiscal year after the effective date of the issuance of such Units.

(b) The Membership Interests shall be represented by the Units which shall, unless otherwise provided therein, not be evidenced by any certificate or other written instrument, but shall only be evidenced by this Agreement and the holders of record of the Units shall be as is reflected on the books of the Company. Notwithstanding the foregoing, at the request of any Member, such Member shall be entitled to have its Units certificated in a form established by the Company.

(c) The total number of Units of all classes and series of Membership Interests which the Company shall have the authority to issue shall be: (i) 500,000,000 Common Units; (ii) 71,050,860 Series A Preferred Units; and (iii) 101,812,060 Series B Preferred Units; provided that in no event shall more than such number of Series A Preferred Units be issued absent the Required Series A Consent and in no event shall more than such number of Series B Preferred Units be issued absent the Required Series B Consent.

(d) After the initial closing under the Series B Purchase Agreement, the Company, on such terms and conditions as shall be approved by the Board, may adopt a Transaction Bonus Plan. Subject to the foregoing approval, the Transaction Bonus Plan may be structured as the grant of additional Units of a new class or series of Membership Interest that is only entitled to its proportionate share of the amounts payable pursuant to such plan as a special allocation of Profit hereunder, with such limitations and restrictions thereon as the Board or the Compensation Committee shall deem reasonable or appropriate. The creation of any such new class or series of Membership Interests shall be a Designation pursuant to Section 5.2. The Required Series A Consent and Required Series B Consent shall not apply to a Transaction Bonus Plan, so long as approved by the Board, including the Merck Manager or the Third Investor Manager.

(e) In no event shall any employee, officer or director of the Company, or any other Person, be entitled to any anti-dilution adjustment (or similar right), of any sort, in connection with the issuance of any securities of the Company, other than (i) as specifically provided herein for the benefit of the holders of Preferred Units, (ii) anti-dilution rights granted to employees of the Company and set forth in the Disclosure Schedule to the Series B Purchase Agreement (provided that, after giving effect to the final closing under the Series B Purchase Agreement, no such employee shall be entitled to any further adjustment, and such rights shall no longer be in effect), and (iii) anti-dilution rights hereafter granted to Persons with the approval of the Board (including the approval of each of the Investor Managers, other than with respect to any anti-dilution rights that are consistent with those herein set forth granted to investors in connection with a Qualified Future Financing), including, without limitation, in connection with a Qualified Future Financing.

5.2 Designation of Additional Units. (a) Subject to Sections 4.9 and 4.10, without limiting any other consent required hereunder, additional Membership Interests may be created and issued from time to time in one or more classes or series with such relative rights, powers, preferences, limitations and restrictions as may from time to time be established in a written action or actions (herein referred to as a "Designation") of the Board providing for the issue of such class or series, as provided in and subject to the limitations of this Article and Section 13.1 (relating to amendments).

(b) The establishment of any such class or series of Membership Interest by a Designation shall set forth, to the extent appropriate:

(i) the number of Units that will constitute such class or series and the distinctive designation thereof;

(ii) whether such class or series shall have voting rights in addition to those set forth in this Agreement or required by law and, if so, the terms of such voting rights;

(iii) the annual rate (or method of calculation thereof), if any, pursuant to which such class or series shall have a preference as to Profits or Losses and distributions of property and the conditions and dates upon which such amounts shall be allocated to the Capital Accounts and/or such distributions shall be

payable to the Members and the ability of the Company, if any, to defer such allocations or distributions for such class or series, the preference or relation, if other than pari passu, which such allocations or distributions shall have with respect to allocations and distributions on any other class or series of Membership Interests, and whether and to the extent such amounts and distributions shall be cumulative or noncumulative;

(iv) whether such class or series shall be subject to redemption by the Company (subject to any required approvals hereunder), and, if made subject to redemption, the times and other terms and conditions of such redemption (including the mandatory or optional nature of such redemption, whether such redemption shall be in whole and/or in part, and the amount and kind of consideration to be received upon such redemption);

(v) the amount or amounts which shall be paid out of the assets of the Company in respect of such class or series upon voluntary or involuntary liquidation, dissolution or winding-up of the Company, and any rights in addition to those set forth in this Agreement in respect of such class or series upon the liquidation, dissolution or winding-up of the Company;

(vi) whether or not such class or series shall be convertible into, or exchangeable for, Membership Interests of any other class or series of Membership Interests, or securities of any other kind, and if so convertible or exchangeable, the terms and conditions of such conversion or exchange, including the price or prices or the rate of conversion or exchange, the method, if any, of adjusting the same and the terms of any right to terminate such conversion exchange privilege;

(vii) any limitations and restrictions in addition to those set forth in this Agreement, to be effective while any Units of such class or series are outstanding, upon the allocation of Profits or Losses, or upon the distribution of property with respect to, and upon the purchase, redemption or other acquisition by the Company of, any of the other classes or series of Membership Interests;

(viii) any conditions or restrictions in addition to those set forth in this Agreement upon the issuance of any additional Membership Interests of any class or series;

(ix) the times, prices and other terms and conditions for the offering of the Units representing such class or series; and

(x) any other relative rights, powers, preferences, limitations and restrictions as shall not be inconsistent with this Section.

The specific terms of any such Designation shall be subject to any consent required hereunder.

(c) Subject to any consent required hereunder, any action or actions taken by the Board pursuant to the provisions of this Section shall be deemed an amendment and supplement to, and shall become a part of, this Agreement.

5.3 Issuance of Units. Subject to the limitations contained in this Agreement, including Sections 4.9, 4.10 and 5.5, the Company shall have the right from time to time to issue additional Units to such persons on such terms and for such consideration as the Board shall determine in its discretion. Notwithstanding the foregoing, the Company shall not issue any Units to any Person unless such Person has executed and delivered to the Company the documents described in Section 5.4 hereof. Upon the issuance of Units, the Company shall adjust the Capital Accounts of the Members as necessary in accordance with Section 6.2 and the Members Schedule shall be adjusted accordingly.

5.4 New Members from the Issuance of Units. In order for a Person to be admitted as a Member of the Company pursuant to the issuance of Units to such Person, such Person shall have executed and delivered to the Company a written undertaking to be bound by the terms and conditions of this Agreement in a form acceptable to the Company. Upon the amendment of the Members Schedule by the Company and the satisfaction of any other applicable conditions, including, if a condition, the receipt by the Company of payment for the issuance of the applicable Units, such Person shall be admitted as a Member and deemed listed as such on the books and records of the Company and thereupon shall be issued his or its Units. The Board shall also adjust the Capital Accounts of the Members as necessary in accordance with Section 6.2.

5.5 Preemptive Rights.

(a) Subject to the terms and conditions of this Section 5.5 and applicable securities laws, and any consent required hereunder, if the Company proposes to offer or sell any New Securities, the Company shall first offer such New Securities to each Major Holder.

(b) The Company shall give notice (the "Offer Notice") to each Major Holder, stating (i) its bona fide intention to offer such New Securities, (ii) the number of such New Securities to be offered, and (iii) the price and terms, if any, upon which it proposes to offer such New Securities.

(c) By notification to the Company within twenty (20) days after the Offer Notice is given, each Major Holder may elect to purchase or otherwise acquire, at the price and on the terms specified in the Offer Notice, up to that portion of such New Securities which equals the proportion that the Common Units issued and held, or issuable (directly or indirectly) upon conversion and/or exercise, as applicable, of the Preferred Units and any other Derivative Securities then held, by such Major Holder bears to the total Common Units of the Company then outstanding (assuming full conversion and/or exercise, as applicable, of all Preferred Units and other Derivative Securities). At the expiration of such twenty (20) day period, the Company shall promptly notify each Major Holder that elects to purchase or acquire all the securities available to it (each, a "Fully Exercising Major Holder") of any other Major Holder's failure to do likewise. During the ten (10) day period commencing after the Company has given such notice, each Fully Exercising Major Holder may, by giving notice to the Company, elect to purchase or acquire, in addition to the number of securities specified above, up to that portion of the New Securities for which Major Holders were entitled to subscribe but that were not

subscribed for by the Major Holders which is equal to the proportion that the Common Units issued and held, or issuable (directly or indirectly) upon conversion and/or exercise, as applicable, of Preferred Units and any other Derivative Securities then held, by such Fully Exercising Major Holder bears to the Common Units issued and held, or issuable (directly or indirectly) upon conversion and/or exercise, as applicable, of the Preferred Units and any other Derivative Securities then held, by all Fully Exercising Major Holders who wish to purchase such unsubscribed securities. The closing of any sale pursuant to this Section shall occur within the later of ninety (90) days of the date that the Offer Notice is given and the date of initial sale of New Securities pursuant to subsection (a) of this Section.

(d) If all New Securities referred to in the Offer Notice are not elected to be purchased or acquired as provided in subsection (b) of this Section, the Company may, during the ninety (90) day period following the expiration of the periods provided in subsection (b) of this Section (or such longer period as the Board determines to keep such offer open), offer and sell the remaining unsubscribed portion of such New Securities to any Person or Persons at a price not less than, and upon terms no more favorable to the offeree than, those specified in the Offer Notice. If the Company does not enter into an agreement for the sale of the New Securities within such period, or if such agreement is not consummated within thirty (30) days of the execution thereof, the right provided hereunder shall be deemed to be revived and such New Securities shall not be offered unless first reoffered to the Major Holders in accordance with this Section.

(e) The right of first offer in this Section shall not be applicable to (i) Exempted New Securities; (ii) securities issued in the IPO (so long as all Major Holders have the same, pro rata, right to participate in any purchase thereof on the same terms); and (iii) the issuance of shares of Series B Preferred Units under the Series B Purchase Agreement.

(f) The covenants set forth in this Section shall terminate and be of no further force or effect (i) immediately before the consummation of the IPO**,** (ii) when the Company first becomes subject to the periodic reporting requirements of Section 12(g) or 15(d) of the Exchange Act, or (iii) upon a Deemed Liquidation Event, whichever event occurs first.

(g) For purposes of this Agreement, the term "Exempted New Securities" shall mean: (i) New Securities issued as a stock or unit dividend or other distribution or upon any subdivision, split or combination of the currently outstanding Units (or any such Units the original issuance of which was conducted in accordance with this Section); (ii) New Securities issued upon conversion, exchange or redemption of any currently outstanding convertible or exchangeable securities (or any New Securities the original issuance of which was conducted in accordance with this Section); (iii) New Securities issued upon exercise of any currently outstanding options or warrants (or any such options or warrants the original issuance of which was conducted in accordance with this Section); (iv) New Securities issued to any employee, former employee, consultant, financial or other advisor, Manager or advisory board member of the Company or any of its subsidiaries as compensation or as an incentive for services, including in connection with the implementation of the Transaction Bonus Plan pursuant to Section 5.1(d); (v) New Securities issued as consideration (whether partial or otherwise) for the purchase by the Company or any of its subsidiaries of assets constituting a business unit or of the stock or other equity securities of any Person or Persons; (vi) New Securities issued pursuant to a Public

Offering; (vii) New Securities issued in connection with the conversion of the Company from a limited liability company into a corporation; (viii) Units issued or issuable pursuant to the Series B Purchase Agreement or the common warrants issued thereunder (or upon conversion or exercise of any such Units or such common warrants); and (ix) New Securities designated by the Company, with the Required Preferred Consent, as being Exempted New Securities.

5.6 Conversion of Preferred Units.

(a) In General. Subject to the terms of this Section, each Preferred Unit outstanding shall, from and after the issue date of such Preferred Unit, be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into a number of Common Units equal to the fraction the numerator of which shall be the Original Issue Price for the Preferred Unit to be converted and the denominator of which shall be the Conversion Price applicable to the Preferred Unit to be converted in effect at the time of conversion. The "Conversion Price" shall mean, (i) for the Series A Preferred Units issued at either the Initial Closing or any Required Milestone Closing (as each such term is defined under the Series A Purchase Agreement) or pursuant to the CV Series A Warrant, $0.73527 (subject to adjustment from time to time as provided in this Section); (ii) for all other Series A Preferred Units, $0.85 (subject to adjustment from time to time as provided in this Section); and (iii) for the Series B Preferred Units, $0.70 (subject to adjustment from time to time as provided in this Section). In the event of a liquidation, dissolution or winding up of the Company or a Deemed Liquidation Event, the conversion rights hereunder with respect to the Preferred Units shall terminate at the close of business on the last full day preceding the date fixed for the payment of any such amounts distributable on such event to the holders of Preferred Units; provided that a holder of Preferred Units may elect to convert subject to, and conditioned upon, consummation of a Deemed Liquidation Event (notwithstanding anything herein to the contrary).

(b) Adjustment for Unit Splits and Combinations. If the Company shall at any time or from time to time after the date hereof effect a subdivision of the outstanding Common Units, the Conversion Price applicable to each series of Preferred Units in effect immediately before that subdivision shall be proportionately decreased so that the number of Common Units issuable on conversion of each such Unit shall be increased in proportion to such increase in the aggregate number of Common Units outstanding. If the Company shall at any time or from time to time after the date hereof combine the outstanding Common Units, the Conversion Price applicable to each series of Preferred Units in effect immediately before the combination shall be proportionately increased so that the number of Common Units issuable on conversion of each Preferred Unit shall be decreased in proportion to such decrease in the aggregate number of Common Units outstanding. Any adjustment under this subsection shall become effective at the close of business on the date the subdivision or combination becomes effective.

(c) Adjustment of Conversion Prices Upon Issuance of Additional Common Units. In the event the Company shall at any time after the date hereof issue Additional Common Units (including Additional Common Units deemed to be issued pursuant to this Section), without consideration or for a consideration per Unit less than the then applicable

Conversion Price for any series of Preferred Units, then the Conversion Price applicable to such series of Preferred Units shall be reduced, concurrently with such issue, to a price (calculated to the nearest one-hundredth of a cent) determined in accordance with the following formula:

$$CP_2 = CP_1 * (A + B) \div (A + C).$$

For purposes of the foregoing formula, the following definitions shall apply:

(A) "CP_2" shall mean the Conversion Price applicable to such series of Preferred Units as in effect immediately after such issue of Additional Common Units;

(B) "CP_1" shall mean the Conversion Price applicable to such series of Preferred Units as in effect immediately prior to such issue of Additional Common Units;

(C) "A" shall mean the number of Common Units outstanding immediately prior to such issue of Additional Common Units (treating for this purpose as outstanding all Common Units issuable upon exercise of Options outstanding immediately prior to such issue or upon conversion or exchange of Convertible Securities (including the Preferred Units) outstanding (assuming exercise of any outstanding Options therefor) immediately prior to such issue);

(D) "B" shall mean the number of Common Units that would have been issued if such Additional Common Units had been issued at a price per share equal to CP_1 (determined by dividing the aggregate consideration received by the Company in respect of such issue by CP_1); and

(E) "C" shall mean the number of such Additional Common Units issued in such transaction.

For purposes of this Section, the following definitions shall apply:

(i) "Option" shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire Common Units or Convertible Securities.

(ii) "Convertible Securities" shall mean any evidences of indebtedness, shares or other securities directly or indirectly convertible into or exchangeable for Common Units, but excluding Options.

(iii) "Additional Common Units" shall mean all Common Units issued (or, pursuant to subsection (d) of this Section, deemed to be issued) by the Company after the date hereof, other than (i) the Preference Units outstanding as of the date hereof and all securities issued or issuable pursuant to the Series B Purchase Agreement or the Series B Bridge Warrants, in each case, at a price no less than the Original Series B Issue Price, and subject to an overall cap of $65,000,000 with respect to issued

Series B Preferred Units, and (ii) the following Common Units and (2) Common Units deemed issued pursuant to the following Options and Convertible Securities (clauses (i) and (ii), collectively, "Exempted Securities"):

(A) Common Units, Options or Convertible Securities issued as a dividend or distribution on Preferred Units;

(B) Common Units, Options or Convertible Securities issued by reason of a dividend, Unit split, split-up;

(C) Common Units (including any "profits interests" pursuant to Section 5.1(a)(ii)) or Options issued to employees or directors of, or consultants or advisors to, the Company or any of its subsidiaries pursuant to a plan, agreement or other issuance approved by the Board, or any Units issued pursuant to the Transaction Bonus Plan;

(D) Common Units or Convertible Securities actually issued upon the exercise of Options or Common Units actually issued upon the conversion or exchange of Convertible Securities, in each case provided such issuance is pursuant to the terms of such Option or Convertible Security;

(E) Common Units, Options or Convertible Securities issued to banks, equipment lessors or other financial institutions, or to real property lessors, pursuant to a debt financing, equipment leasing or real property leasing transaction or acquisition or license of any assets or business, in each case as approved by the Board; or

(F) (i) Common Units issued or issuable pursuant to (x) the Series B Commitment Letter, or (y) conversion of the Series B Units issued or issuable pursuant to the Series B Purchase Agreement or the Series B Bridge Warrants, and (ii) the Preference Units outstanding as of the date hereof.

(d) Deemed Issue of Additional Common Units

(i) If the Company at any time or from time to time after the date hereof shall issue any Options or Convertible Securities (excluding Options or Convertible Securities which are themselves Exempted Securities) or shall fix a record date for the determination of holders of any class of securities entitled to receive any such Options or Convertible Securities, then the maximum number of Common Units (as set forth in the instrument relating thereto, assuming the satisfaction of any conditions to exercisability, convertibility or exchangeability but without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or, in the case of Convertible Securities and Options therefor, the conversion or exchange of such Convertible Securities, shall be deemed to be Additional Common Units issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date.

(ii) If the terms of any Option or Convertible Security, the issuance of which resulted in an adjustment to the Conversion Price for any series of Preferred Units pursuant to the terms of subsection (c) of this Section, are revised as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase or decrease in the number of Common Units issuable upon the exercise, conversion and/or exchange of any such Option or Convertible Security or (2) any increase or decrease in the consideration payable to the Company upon such exercise, conversion and/or exchange, then, effective upon such increase or decrease becoming effective, the applicable Conversion Price for each series of Preferred Units computed upon the original issue of such Option or Convertible Security (or upon the occurrence of a record date with respect thereto) shall be readjusted to such Conversion Price as would have obtained had such revised terms been in effect upon the original date of issuance of such Option or Convertible Security. Notwithstanding the foregoing, no readjustment pursuant to this clause (ii) shall have the effect of increasing the Conversion Price for any series of Preferred Units to an amount which exceeds the lower of (i) the Conversion Price for such series of Preferred Units in effect immediately prior to the original adjustment made as a result of the issuance of such Option or Convertible Security, or (ii) the Conversion Price that would have resulted from any issuances of Additional Common Units (other than deemed issuances of Additional Common Units as a result of the issuance of such Option or Convertible Security) between the original adjustment date and such readjustment date.

(iii) If the terms of any Option or Convertible Security (excluding Options or Convertible Securities which are themselves Exempted Securities), the issuance of which did not result in an adjustment to the Conversion Price for any series of Preferred Units pursuant to the terms of subsection (c) of this Section (either because the consideration per share of the Additional Common Units subject thereto was equal to or greater than the applicable Conversion Price then in effect, or because such Option or Convertible Security was issued before the date hereof), are revised after the date hereof as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase in the number of Common Units issuable upon the exercise, conversion or exchange of any such Option or Convertible Security or (2) any decrease in the consideration payable to the Company upon such exercise, conversion or exchange, then such Option or Convertible Security, as so amended or adjusted, and the Additional Common Units subject thereto (determined in the manner provided in clause (i) above shall be deemed to have been issued effective upon such increase or decrease becoming effective.

(iv) Upon the expiration or termination of any unexercised Option or unconverted or unexchanged Convertible Security (or portion thereof) which resulted (either upon its original issuance or upon a revision of its terms) in an adjustment to the Conversion Price for any series of Preferred Units pursuant to the terms of subsection (c) of this Section, such Conversion Price shall be readjusted to such Conversion Price as would have obtained had such Option or Convertible Security (or portion thereof) never been issued.

(v) If the number of Common Units issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Company upon such exercise, conversion and/or exchange, is calculable at the time such Option or Convertible Security is issued or amended but is subject to adjustment based upon subsequent events, any adjustment to the Conversion Price for any series of Preferred Units provided for in this subsection (d) shall be effected at the time of such issuance or amendment based on such number of Units or amount of consideration without regard to any provisions for subsequent adjustments (and any subsequent adjustments shall be treated as provided in clauses (ii) and (iii) of this subsection (d)). If the number of Common Units issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Company upon such exercise, conversion and/or exchange, cannot be calculated at all at the time such Option or Convertible Security is issued or amended, any adjustment to the Conversion Price for any series of Preferred Units that would result under the terms of this subsection (d) at the time of such issuance or amendment shall instead be effected at the time such number of shares and/or amount of consideration is first calculable (even if subject to subsequent adjustments), assuming for purposes of calculating such adjustment to the applicable Conversion Price that such issuance or amendment took place at the time such calculation can first be made.

(e) No Adjustment of Conversion Price. No adjustment to the Conversion Price for (x) the Series A Preferred Units shall be made as the result of the issuance or deemed issuance of Additional Common Units if the Company receives written notice from holders of Series A Preferred Units representing the Required Series A Consent; and (y) the Series B Preferred Units shall be made as the result of the issuance or deemed issuance of Additional Common Units if the Company receives written notice from holders of Series B Preferred Units representing the Required Series B Consent, in each case agreeing that no such adjustment shall be made as the result of the issuance or deemed issuance of such Additional Common Units.

(f) Multiple Closing Dates. In the event the Company shall issue on more than one date Additional Common Units that are a part of one transaction or a series of related transactions and that would result in an adjustment to the Conversion Price for any series of Preferred Units pursuant to the terms of subsection (c) of this Section, then, upon the final such issuance, the Conversion Price for such series of Preferred Units shall be readjusted to give effect to all such issuances as if they occurred on the date of the first such issuance (and without giving effect to any additional adjustments as a result of any such subsequent issuances within such period).

(g) Adjustment for Merger or Reorganization, etc. Subject to the provisions of this Agreement as it relates to a Deemed Liquidation Event, if there shall occur any reorganization, recapitalization, reclassification, consolidation or merger involving the Company in which the Common Units (but not the Preferred Units) are converted into or exchanged for securities, cash or other property (other than a transaction covered by subsection (b) of this Section), then, following any such reorganization, recapitalization, reclassification, consolidation or merger, each Preferred Unit shall thereafter be convertible in lieu of the Common Units into which it was convertible prior to such event into the kind and amount of securities, cash or other property which a holder of the Common Units issuable upon conversion of the Preferred Units immediately prior to such reorganization, recapitalization, reclassification, consolidation or

merger would have been entitled to receive pursuant to such transaction; and, in such case, appropriate adjustment (as determined in good faith by the Board) shall be made in the application of the provisions in this Section with respect to the rights and interests thereafter of the holders of the Preferred Units, to the end that the provisions set forth in this Section (including provisions with respect to changes in and other adjustments of the Conversion Prices) shall thereafter be applicable, as nearly as reasonably may be, in relation to any securities or other property thereafter deliverable upon the conversion of the Preferred Units.

(h) Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of the Conversion Price for any series of Preferred Units pursuant to this Section, the Company at its expense shall, as promptly as reasonably practicable but in any event not later than 10 days thereafter, compute such adjustment or readjustment in accordance with the terms hereof and furnish to each holder of such series of Preferred Units a certificate setting forth such adjustment or readjustment (including the kind and amount of securities, cash or other property into which such series of Preferred Units are convertible) and showing in detail the facts upon which such adjustment or readjustment is based. The Company shall, as promptly as reasonably practicable after the written request at any time of any holder of Preferred Units (but in any event not later than 10 days thereafter), furnish or cause to be furnished to such holder a certificate setting forth (i) the Conversion Price applicable to such Preferred Units then in effect, and (ii) the number of Common Units and the amount, if any, of other securities, cash or property which then would be received upon the conversion of such Preferred Units.

(i) Notice of Record Date. In the event:

(A) the Company shall take a record of the holders of its Common Units (or other securities at the time issuable upon conversion of the Preferred Units) for the purpose of entitling or enabling them to receive any dividend or other distribution, or to receive any right to subscribe for or purchase any Units or any other securities, or to receive any other security; or

(B) of any capital reorganization of the Company, any reclassification of the Common Units, or any Deemed Liquidation Event; or

(C) of the voluntary or involuntary dissolution, liquidation or winding-up of the Company,

then, and in each such case, the Company will send or cause to be sent to the holders of the Preferred Units a notice specifying, as the case may be, (i) the record date for such dividend, distribution or right, and the amount and character of such dividend, distribution or right, or (ii) the effective date on which such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up is proposed to take place, and the time, if any is to be fixed, as of which the holders of record of Common Units (or such other Units or securities at the time issuable upon the conversion of the Preferred Units) shall be entitled to exchange their Common Units (or such other Units or securities) for securities or other property deliverable upon such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up, and the amount per Unit and character of such exchange applicable to the Preferred Units and the Common Units. Such notice shall be sent at least 10 days prior to the record date or effective date for the event specified in such notice.

(j) No Fractional Units. No fractional Common Units shall be issued upon conversion of the Preferred Units. In lieu of any fractional Units to which the holder would otherwise be entitled, the Company shall pay cash equal to such fraction multiplied by the fair market value of one Common Unit as determined in good faith by the Board of Managers. Whether or not fractional Units would be issuable upon such conversion shall be determined on the basis of the total number of Preferred Units the holder is at the time converting into Common Units and the aggregate number of Common Units issuable upon such conversion.

(k) Mandatory Conversion.

(i) Upon either (a) the closing of a Qualified Public Offering, or (b) the date and time, or the occurrence of an event, specified in a written consent executed by Members holding Preferred Units representing the Required Series A Consent (including, for the avoidance of doubt, approval of each of CV II and Merck GHI so long as such party holds Preferred Units) (the time of such closing or the date and time specified or the time of the event specified in such vote or written consent is referred to herein as the "Mandatory Series A Conversion Time"), (i) all outstanding Series A Preferred Units shall automatically be converted into Common Units, at the then effective Conversion Price applicable to the Series A Preferred Units and (ii) such Units may not be reissued by the Company. Upon either (a) the closing of a Qualified Public Offering, or (b) the date and time, or the occurrence of an event, specified in a written consent executed by Members holding Preferred Units representing the Required Series B Consent (so long as such consent includes the approval of each of CV II and Merck GHI so long as such party holds Preferred Units) (the time of such closing or the date and time specified or the time of the event specified in such vote or written consent is referred to herein as the "Mandatory Series B Conversion Time" and, together with the Mandatory Series A Conversion Time, the "Mandatory Conversion Time"), (i) all outstanding Series B Preferred Units shall automatically be converted into Common Units, at the then effective Conversion Price applicable to the Series B Preferred Units and (ii) such Units may not be reissued by the Company.

(ii) All holders of record of Preferred Units shall be sent written notice of the Mandatory Conversion Time applicable to such Preferred Units and the place designated for mandatory conversion of all such Preferred Units pursuant to this Section. Such notice need not be sent in advance of the occurrence of the Mandatory Conversion Time. All rights with respect to the Preferred Units converted pursuant to this subsection, including the rights, if any, to receive notices and vote (other than as a holder of Common Units), will terminate at the applicable Mandatory Conversion Time, except only the rights of the holders thereof to receive the items provided for in the next sentence of this subsection. As soon as practicable after the applicable Mandatory Conversion Time, the Company shall reflect on its books and records the issuance to such holder, or to his, her or its nominees, of the number of full Common Units issuable on such conversion in accordance with the provisions hereof, together with cash as provided in subsection (j) in lieu of any fraction of a Common Unit otherwise issuable upon such conversion and the payment of any declared but unpaid distributions on the Preferred Units converted, without limiting Section 5.6(k)(iii). Such converted Preferred Units shall be retired and cancelled and may not be reissued, and the Company may thereafter take such appropriate action (without the need for Member action) as may be necessary to reduce the authorized number of Preferred Units accordingly.

(iii) In the event of a conversion of Preferred Units in connection with a Public Offering, each holder of Series A Preferred Units so converted shall be entitled to receive, in addition to the Common Units issuable upon conversion thereof, the form of which at the Company's sole discretion either (i) a cash payment equal to the Fixed Series A Return in respect of such converted Series A Preferred Units, or (ii) Common Units (or shares of common stock, as applicable) with a value equal to the Fixed Series A Return in respect of such converted Series A Preferred Units (valuing such Common Units (or common stock) based on the closing price for such securities in the Public Offering). Such cash or securities shall be paid or issued by the Company upon the closing of such Public Offering.

ARTICLE VI
Capital Contributions and Capital Accounts

6.1 Capital Contributions; Capital Calls.

(a) Each Member has made, or shall make, the capital contribution, if any, and shall perform the commitment described in the subscription or other agreement entered into with the Company pursuant to which such Member acquired its Membership Interest.

(b) Except as provided in a separate agreement with such Member, no Member shall be required to make any additional contributions to the Company with respect to such Member's Units. Except as expressly provided herein, no Member, in its capacity as a Member, shall have the right to receive any cash or any other property of the Company.

6.2 Capital Accounts.

(a) Maintenance Rules. The Company shall maintain for each Member a separate capital account (a "Capital Account") in accordance with this Section 6.2(a). For the avoidance of doubt, each Warrant shall be treated as a Noncompensatory Option but shall not be treated as exercised upon issuance, and, therefore, each holder of a Warrant shall not (for purposes of the Warrant) be treated as a Member in the Company, and thus, the holder of a Warrant will not receive any allocation of income, gain, loss or deduction in respect of any Units underlying such Warrant until such Units are actually issued following exercise of such Warrant. Each Capital Account shall be maintained in accordance with the following provisions:

(i) Such Capital Account shall be increased by the cash amount or Book Value of any property contributed by such Member to the Company pursuant to this Agreement, such Member's allocable share of Profits and any items in the nature of income or gains which are specially allocated to such Member pursuant to Section 8.2 or Section 8.3, and the amount of any liabilities of the Company assumed by such Member or which are secured by any property distributed to such Member.

(ii) Such Capital Account shall be decreased by the cash amount or Book Value of any property distributed to such Member pursuant to this Agreement, such

Member's allocable share of Losses and any items in the nature of deductions or losses which are specially allocated to such Member pursuant to Section 8.2 or Section 8.3, and the amount of any liabilities of such Member assumed by the Company or which are secured by any property contributed by such Member to the Company.

(iii) If all or any portion of a Unit is transferred in accordance with the terms of this Agreement, the transferee shall succeed to the Capital Account of the transferor to the extent it relates to the transferred Unit (or portion thereof).

(iv) If (A) a new or existing Member contributes money or property to the Company (other than a de minimis amount as determined by the Board) as consideration for the issuance by the Company of any Units after the date hereof, (B) Units intended to constitute "profits interests" for services to be rendered for federal income tax purposes are issued, (C) the Company distributes more than a de minimis amount of Company assets other than cash as consideration for all or part of its Units, or (D) Preferred Units are converted into Common Units, (E) immediately prior to a Corporate Conversion pursuant to Section 11.7(a), or (F) Noncompensatory Options are issued, the Capital Accounts of the Members shall be adjusted in accordance with Treasury Regulation Section 1.704 1(b)(2)(iv)(f); provided, however, that in the event of the issuance of any Unit pursuant to the exercise of a Noncompensatory Option where the right to share in capital represented by such Unit differs from the consideration paid to acquire and exercise such option, the Book Value of Company assets immediately after the issuance of such Unit shall be adjusted upward or downward to reflect any unrealized gain or unrealized loss attributable to such assets and the Capital Accounts of the Members shall be adjusted in a manner consistent with Treasury Regulation Section 1.704-1(b)(2)(iv)(s); provided further, however, that in the event of an issuance of Units for a de minimis amount of cash or contributed property, in the event of an issuance of a Noncompensatory Option to acquire a de minimis amount of Units, or in the event of an issuance of a de minimis amount of Units as consideration for the provision of services, the Board may determine that such adjustments are unnecessary for the proper administration of the Company. If, upon the occurrence of an event described in this Section 6.2(a)(iv), a Noncompensatory Option of the Company is outstanding, the Company shall adjust the Book Value of each Company asset in accordance with Treasury Regulation Sections 1.704-1(b)(2)(iv)(f)(1) and 1.704-1(b)(2)(iv)(h)(2). In making such adjustments pursuant to a conversion of Preferred Units into Common Units, the Preferred Units shall be treated as convertible equity under Treasury Regulations Section 1.721-2(g)(3), and adjustments shall be made by subtracting the value of the conversion feature of the Preferred Units from Fair Market Value before adjusting the Book Value of Company assets as provided in Treasury Regulations Sections 1.704-1(b)(2)(iv)(h)(2) and 1.704-1(b)(2)(iv)(s).

The foregoing provisions and the other provisions of this Agreement relating to the maintenance of Capital Accounts are intended to comply with Section 1.704-1(b) of the Treasury Regulations and shall be interpreted and applied in a manner consistent with such Treasury Regulations. If the Board determines that it is prudent to modify the manner in which the Capital Accounts, or any increases or decreases to the Capital Accounts, are computed in order to comply with such Treasury Regulations, the Board may authorize such modifications.

(b) Definition of Profits and Losses. "Profits" and "Losses" mean, for each Taxable Year or other period, an amount equal to the Company's taxable income or loss, respectively, for such Taxable Year or other period, determined in accordance with Code Section 703(a) (for this purpose, all items of income, gain, loss or deduction required to be stated separately pursuant to Code Section 703(a)(1) shall be included in taxable income or loss), with the following adjustments:

(i) The computation of all items of income, gain, loss and deduction shall include tax-exempt income and those items described in Treasury Regulation Section 1.704-1(b)(2)(iv)(i), without regard to the fact that such items are not includable in gross income or are not deductible for federal income tax purposes.

(ii) If the Book Value of any Company property is adjusted pursuant to Treasury Regulation Section 1.704-1(b)(2)(iv)(e) or (f), the amount of such adjustment shall be taken into account as gain or loss from the disposition of such property.

(iii) Items of income, gain, loss or deduction attributable to the disposition of Company property having a Book Value that differs from its adjusted basis for tax purposes shall be computed by reference to the Book Value of such property.

(iv) Items of depreciation, amortization and other cost recovery deductions with respect to Company property having a Book Value that differs from its adjusted basis for tax purposes shall be computed by reference to the property's Book Value in accordance with Treasury Regulation Section 1.704-1(b)(2)(iv)(g).

(v) To the extent an adjustment to the adjusted tax basis of any Company property pursuant to Code Sections 732(d), 734(b) or 743(b) is required, pursuant to Treasury Regulation Section 1.704-1(b)(2)(iv)(m), to be taken into account in determining Capital Accounts, the amount of such adjustment to the Capital Accounts shall be treated as an item of gain (if the adjustment increases the basis of the asset) or loss (if the adjustment decreases such basis).

6.3 Negative Capital Accounts. If any Member has a deficit balance in its Capital Account, such Member shall have no obligation to restore such negative balance or to make any Capital Contributions to the Company by reason thereof, and such negative balance shall not be considered an asset of the Company or of any Member.

6.4 No Withdrawal. No Member will be entitled to withdraw any part of his or its Capital Contribution or Capital Account or to receive any distribution from the Company, except as expressly provided in this Agreement.

6.5 Loans From Members. Loans by Members to the Company shall not be considered Capital Contributions.

6.6 Status of Capital Contributions.

(a) No Member shall receive any interest, salary or drawing with respect to its Capital Contributions or its Capital Account, except as otherwise specifically provided in this Agreement.

(b) Except as otherwise provided herein, no Member shall be required to lend any funds to the Company or to make any additional Capital Contributions to the Company. No Member shall have any personal liability for the repayment of any Capital Contribution of any other Member.

ARTICLE VII
Distributions

7.1 Generally.

(a) Subject to Sections 7.2, 7.3 and 4.9, the Board shall have sole discretion regarding the amounts and timing of distributions to Members in respect of the outstanding Units, in each case subject to the retention and establishment in good faith of reserves of, or payment to third parties of, such funds as it deems reasonably necessary with respect to the reasonable business needs of the Company which shall include the payment or the making of provision for the payment when due of the Company's obligations, including the payment of any management or administrative fees and expenses or any other obligations, including any amounts payable under the Transaction Bonus Plan (the amount of cash on hand in excess of such reserves and other amounts at any given time being referred to herein as the "Available Cash").

(b) Notwithstanding any provision to the contrary contained in this Agreement, the Company shall not make any distribution to Members (x) if such distribution would violate Section 18-607 of the Delaware Act or other applicable law, or (y) to the extent that, immediately following such distribution, such Member's Capital Account would be negative.

7.2 Interim Distributions. Subject to Sections 7.1(b), 7.3, 4.9 and 4.10, non-liquidating distributions of Available Cash or other assets (taking such other assets into account at their Fair Market Value at the time of distributions) shall be distributed, at such times and in such amounts as the Board determines in its sole discretion, to the Members in the following order and priority:

(a) First, to the holders of the outstanding Series B Preferred Units (to the extent not converted into Common Units at or prior to the date of any such distribution), on a per Unit basis, in an amount equal to the Series B Unreturned Capital Value with respect to all outstanding Series B Preferred Units. If upon any such distribution, the amount to be distributed shall be insufficient to pay the holders of the Series B Preferred Units the full amount to which they shall be entitled under this Section 7.2(a), the holders of the Series B Preferred Units shall share ratably in any such distribution in proportion to the respective amounts which would otherwise be payable in respect of such Units held by them upon such distribution if all amounts payable on or with respect to such Units pursuant to this Section 7.2(a) were paid in full;

(b) Second, to the holders of the outstanding Series A Preferred Units (to the extent not converted into Common Units at or prior to the date of any such distribution), on a per Unit basis, in an amount equal to the sum of (x) the Series A Unreturned Capital Value, and (y) the accrued and unpaid Series A Preferred Return with respect to all outstanding Series A Preferred Units. If upon any such distribution (after paying in full the amounts due the holders of the Series B Preferred Units under Section 7.2(a)) the remaining amount to be distributed shall be insufficient to pay the holders of the Series A Preferred Units the full amount to which they shall be entitled under this Section 7.2(b), the holders of the Series A Preferred Units shall share ratably in any such remaining distribution in proportion to the respective amounts which would otherwise be payable in respect of such Units held by them upon such distribution if all amounts payable on or with respect to such Units pursuant to this Section 7.2(b) were paid in full; and

(c) Thereafter, the balance of the proposed distribution shall be paid to all of the holders of Common Units and Preferred Units, on a per Unit basis (treating all Preferred Units on an as-if converted to Common Units basis); provided, that distributions to the holders of Common Units issued as profits interests shall be limited to a share of distributions attributable to profits and appreciation after such Common Units were granted.

7.3 Tax Advances. Subject to the restrictions of any of the Company's and/or its subsidiaries' then applicable debt financing agreements and subject to the retention of any other amounts necessary to satisfy the Company's and/or the subsidiaries' obligations, as close as is practicable to each date prescribed by the Code for an individual to pay quarterly installments of estimated tax, the Company shall distribute to each Member out of Available Cash, if any, cash in proportion to and to the extent of such Member's Quarterly Estimated Tax Amount for the applicable calendar quarter. If, at any time after the final Quarterly Estimated Tax Amount has been distributed pursuant to the previous sentence with respect to any Fiscal Year, the aggregate Tax Advances to any Member with respect to such Fiscal Year are less than such Member's Tax Amount for such Fiscal Year (a "Shortfall Amount"), the Company shall use commercially reasonable efforts to distribute cash in proportion to and to the extent of each Member's Shortfall Amount. The Company shall use commercially reasonable efforts to distribute Shortfall Amounts with respect to a Fiscal Year before the 75th day of the next succeeding Fiscal Year (provided that if the Company has made distributions other than pursuant to this Section 7.3, the Board may apply such distributions to reduce any Shortfall Amount). If the aggregate distributions made to any Member pursuant to this Section 7.3 for any Fiscal Year exceed such Member's Tax Amount (an "Excess Amount") such Excess Amount shall reduce subsequent distributions that would be made to such Member pursuant to this Section 7.3, except to the extent taken into account as an advance pursuant to the next sentence. Distributions made pursuant to this Section 7.3 shall be taken into account as advances on distributions payable pursuant to Section 7.2, and shall (to the extent not previously taken into account pursuant to this sentence) reduce the distributions to be made to any Member under Section 7.2, when and as paid by the Company. No Member shall be liable to the Company for any amount distributed to it pursuant to this Section 7.3, or for any interest on such amount.

7.4 Indemnification and Reimbursement for Payments on Behalf of a Member. Except as otherwise provided in this Agreement, if the Company is required by law (as determined by the Tax Matters Person based on the advice of legal or tax counsel to the Company) to make any payment on behalf of a Member in its capacity as such (including in respect of withholding taxes, personal property taxes, and unincorporated business taxes, etc.), then such Member (the "Indemnifying Member") will indemnify the Company in full for the entire amount paid, including interest, penalties and expenses associated with such payment. At the option of the Board, the amount to be indemnified may be charged against a Capital Account of the Indemnifying Member, and, at the option of the Board, either:

(a) promptly upon notification of an obligation to indemnify the Company, the Indemnifying Member will make a cash payment to the Company in an amount equal to the full amount to be indemnified (and the amount paid will be added to the Indemnifying Member's Capital Account but will not be deemed to be a Capital Contribution), or

(b) the Company will reduce distributions which would otherwise be made to the Indemnifying Member until the Company has recovered the amount to be indemnified (and the amount of such reduction will be deemed to have been distributed for all purposes, but such deemed distribution will not further reduce the Indemnifying Member's Capital Account).

A Member's obligation to make contributions to the Company under this Section 7.4 will survive the termination, dissolution, liquidation and winding up of the Company, and for purposes of this Section 7.4, the Company will be treated as continuing in existence. The Company may pursue and enforce all rights and remedies it may have against each Member under this Section 7.4, including instituting a lawsuit to collect such contribution with interest calculated at a rate equal to the Company's and its subsidiaries' effective cost of borrowed funds.

7.5 Distributions Upon a Deemed Liquidation Event; Asset Sale. Subject to Section 7.1(b), unless the holders of (i) Preferred Units representing the Required Series A Consent (including the approval of each of CV II and Merck GHI so long as such party holds Preferred Units) and the Required Series B Consent (including the approval of each of CV II and Merck GHI so long as such party holds Preferred Units), and (ii) a majority of the outstanding Common Units (not including any Common Units issuable upon conversion of the Preferred Units), elect otherwise by written notice sent to the Company prior to the effective date of any Deemed Liquidation Event, the Company shall distribute the proceeds received by the Company in respect of such Deemed Liquidation Event in accordance with Section 10.2(b). Subject to Section 7.1(b), unless the holders of (i) Preferred Units representing the Required Series A Consent (including the approval of each of CV II and Merck GHI so long as such party holds Preferred Units) and the Required Series B Consent (including the approval of each of CV II and Merck GHI so long as such party holds Preferred Units), and (ii) a majority of the outstanding Common Units (not including any Common Units issuable upon conversion of the Preferred Units), elect otherwise by written notice sent to the Company, upon any sale or other transfer of a significant portion of its securities or sale, license and/or other transfer of a significant portion of its assets (which would not be deemed to be a Deemed Liquidation Event), the Company shall promptly distribute all of the Company's Available Cash (after taking into account the proceeds (cash or otherwise) received in respect of any such transaction) to the Members in accordance with Section 7.2.

ARTICLE VIII
Allocations

8.1 Allocations of Profits and Losses. Subject to the other provisions of this Article VIII, the Company's Profit and Loss for any fiscal period shall be allocated among the Members in such a manner that, as of the end of such fiscal period and to the extent possible, the Capital Account of each Member shall be equal to the respective net amount which would be distributed to such Member under this Agreement, determined as if the Company were to (a) liquidate the assets of the Company for an amount equal to their Fair Market Value as of the end of such fiscal period and (b) distribute the proceeds in liquidation in accordance with Section 10.2.

8.2 Regulatory and Special Allocations. Notwithstanding the provisions of Section 8.1:

(a) To the extent an adjustment to the adjusted tax basis of any Company asset pursuant to Code Section 734(b) or 743(b) is required to be taken into account in determining Capital Accounts, the amount of such adjustment to the Capital Accounts shall be treated, as provided in Treasury Regulation Section 1.704-1(b)(2)(iv)(*m*), as an item of Profit (if the adjustment increases the basis of the asset) or Loss (if the adjustment decreases such basis) and such Profit or Loss shall be specially allocated to the Members in a manner consistent with the manner in which their Capital Accounts are required to be adjusted pursuant to such Section of the Treasury Regulations.

(b) If there is a net decrease in Company Minimum Gain (determined according to Treasury Regulation Section 1.704-2(d)(1)) during any Taxable Year, each Member shall be specially allocated Profits for such Taxable Year (and, if necessary, subsequent Taxable Years) in an amount equal to such Member's share of the net decrease in Company Minimum Gain, determined in accordance with Treasury Regulation Section 1.704-2(g). The items to be so allocated shall be determined in accordance with Treasury Regulation Section 1.704-2(f)(6) and 1.704-2(j)(2). This paragraph is intended to comply with the minimum gain chargeback requirement in Treasury Regulation Section 1.704-2(f) and shall be interpreted consistently therewith.

(c) Member Nonrecourse Deductions shall be allocated in the manner required by Treasury Regulation Section 1.704-2(i). Except as otherwise provided in Treasury Regulation Section 1.704-2(i)(4), if there is a net decrease in Member Minimum Gain during any Taxable Year, each Member that has a share of such Member Minimum Gain shall be specially allocated Profits for such Taxable Year (and, if necessary, subsequent Taxable Years) in an amount equal to that Member's share of the net decrease in Member Minimum Gain. Items to be allocated pursuant to this paragraph shall be determined in accordance with Treasury Regulation Section 1.704-2(i)(4) and 1.704-2(j)(2). This paragraph is intended to comply with the minimum gain chargeback requirements in Treasury Regulation Section 1.704-2(i)(4) and shall be interpreted consistently therewith.

(d) In the event any Member unexpectedly receives any adjustments, allocations or distributions described in Treasury Regulation Section 1.704-1(b)(2)(ii)(*d*)(*4*), (*5*) or (*6*), Profits shall be specially allocated to such Member in an amount and manner sufficient to

eliminate the Adjusted Capital Account Deficit created by such adjustments, allocations or distributions as quickly as possible. This paragraph is intended to comply with the qualified income offset requirement in Treasury Regulation Section 1.704-1(b)(2)(ii)(*d*) and shall be interpreted consistently therewith.

(e) If, as a result of an exercise of a Noncompensatory Option, a Capital Account reallocation is required under Treasury Regulation Section 1.704-1(b)(2)(iv)(s)(3), the Company shall make corrective allocations pursuant to Treasury Regulation Section 1.704-1(b)(4)(x).

(f) Nonrecourse Deductions for any Taxable Year or other period shall be specially allocated among the Members in proportion to their Percentage Interest in the Company.

(g) The allocations set forth in this Section above (the "Regulatory Allocations") are intended to comply with certain requirements of the Treasury Regulations under Code Section 704. Notwithstanding any other provisions of this Article VIII (other than the Regulatory Allocations), the Regulatory Allocations shall be taken into account in allocating Profits and Losses among Members so that, to the extent possible, the net amount of such allocations of Profits and Losses and other items and the Regulatory Allocations to each Member shall be equal to the net amount that would have been allocated to such Member if the Regulatory Allocations had not occurred.

8.3 Curative Allocations. If the Tax Matters Person determines, after consultation with counsel experienced in income tax matters, that the allocation of any item of Company income, gain, loss, deduction or credit is not specified in this Article VIII (an "unallocated item"), or that the allocation of any item of Company income, gain, loss, deduction or credit hereunder is clearly inconsistent with the Members' economic interests in the Company (determined by reference to the general principles of Treasury Regulation Section 1.704-1(b) and the factors set forth in Treasury Regulation Section 1.704-1(b)(3)(ii)) (a "misallocated item"), then the Board may allocate such unallocated items, or reallocate such misallocated items, to reflect such economic interests.

8.4 Tax Allocations.

(a) Subject to Section 8.4(g) below, all income, gains, losses, deductions and credits of the Company shall be allocated, for federal, state and local income tax purposes, among the Members in accordance with the allocation of such income, gains, losses, deductions and credits among the Members for computing their Capital Accounts, except that if any such allocation for tax purposes is not permitted by the Code or other applicable law, the Company's subsequent income, gains, losses, deductions and credits shall be allocated among the Members for tax purposes, to the extent permitted by the Code and other applicable law, so as to reflect as nearly as possible the allocation set forth herein in computing their Capital Accounts. Each item of income, gain, loss, deduction and credit realized by the Company in any taxable year shall be allocated pro rata to the Members according to the amount of Profit or Loss, as the case may be, allocated to them in such year. Notwithstanding the foregoing, if as a result of the difference in timing of Capital Contributions by the Members to the Company and the contribution, loan or

other transfer by the Company to any of its subsidiaries of funds or other property contributed to the Company by such Members, the Company realizes short-term capital gain or both long-term and short-term capital gain for purposes of the Code, then the Tax Matters Person may allocate such short-term capital gain to the Members whose Capital Contributions resulted (directly or indirectly) in the recognition of such short-term capital gain.

(b) Items of Company taxable income, gain, loss and deduction with respect to any property contributed to the capital of the Company shall be allocated among the Members in accordance with Code Section 704(c) and the remedial method of Treasury Regulation Section 1.704-3(d), or such other method elected by the Tax Matters Person with the approval of Members holding (x) Preferred Units representing the Required Series A Consent (including the approval of each of CV II and Merck GHI so long as such party holds Preferred Units) and the Required Series B Consent (including the approval of each of CV II and Merck GHI so long as such party holds Preferred Units), and (y) a majority of the outstanding Common Units (not including any Common Units issuable upon conversion of the Preferred Units), so as to take account of any variation between the adjusted basis of such property to the Company for federal income tax purposes and its Book Value.

(c) If the Book Value of any Company property is adjusted pursuant to Section 6.2(a)(iv), subsequent allocations of items of taxable income, gain, loss and deduction with respect to such property shall take account of any variation between the adjusted basis of such property for federal income tax purposes and its Book Value in the same manner as under Code Section 704(c).

(d) Allocations of tax credit, tax credit recapture, and any items related thereto shall be allocated to the Members according to their interests in such items as determined by the Board taking into account the principles of Treasury Regulation Section 1.704-1(b)(4)(ii).

(e) Allocations pursuant to this Section 8.4 are solely for purposes of federal, state and local taxes and shall not affect, or in any way be taken into account in computing, any Member’s Capital Account or share of Profits, Losses, distributions or other items pursuant to any provisions of this Agreement.

(f) Solely for the purpose of determining each Member’s share of Company “excess nonrecourse liabilities” pursuant to Treasury Regulation Section 1.752-3(a)(3), each Member’s interest in Company profits is hereby specified to be such Member’s Percentage Interest.

(g) To the extent permitted by the Code or other applicable law, notwithstanding anything contained herein to the contrary, allocations of taxable income realized by the Company as a result of distributions or dividends from (or redemptions of securities held by the Company of) any subsidiary, the proceeds of which are used to fund distributions to Members, shall be made to the Members receiving such distributions in proportion to such distributions.

ARTICLE IX
Elections and Reports

9.1 Generally. The Company will keep appropriate books and records with respect to the Company's business, including all books and records necessary to provide any information, lists and copies of documents required to be provided pursuant to Section 9.3.

9.2 Tax Status. The Members intend that the Company be treated as a partnership for federal, state and local income tax purposes and the Company and each Member shall file all tax returns on the basis consistent therewith.

9.3 Reports. The Company will use reasonable efforts to deliver or cause to be delivered, by April 1 of each year, to each person who was a Member at any time during the previous Taxable Year, all information reasonably necessary for the preparation of such person's United States federal income tax returns and any state, local and foreign income tax returns which such person is required to file as a result of the Company being engaged in a trade or business within such state, local or foreign jurisdiction, including a statement showing such person's share of income, gains, losses, deductions and credits for such year for United States federal income tax purposes (and, if applicable, state, local or foreign income tax purposes).

9.4 Tax Elections. The Tax Matters Person will determine whether to make or revoke any available election (including the election provided under Code Section 754) for federal, state, local and foreign tax purposes. Each Member will upon request supply the information necessary to give proper effect to any such election.

9.5 Tax Controversies. (a) The Company's Chief Executive Officer shall be the "tax matters partner" of the Company within the meaning of Section 6231(a)(7) of the Code, and as the "partnership representative" within the meaning of Section 6223(a) of the Code, as amended by the Revised Partnership Audit Procedures, and shall act in a similar capacity under any applicable non-U.S., state or local tax law (such person acting in such capacity, as the "Tax Matters Person"). In addition, if applicable, the Tax Matters Person shall appoint a designated individual through whom the partnership representative will act for all purposes of the Revised Partnership Audit Procedures as described in proposed Treasury Regulation Section 301.6223-1(b). With the consent of the Members holding a Majority in Interest, the Tax Matters Person shall represent the Company in any disputes, controversies or proceedings with the Internal Revenue Service ("IRS") or with any state, local or non-U.S. taxing authority and subject to the provisions of this Section 9.5 is hereby authorized to exercise any and all authority and take any and all actions that it is permitted to take by applicable law when acting in that capacity. All reasonable expenses incurred by the Tax Matters Person while acting in the capacity of tax matters partner shall be paid or reimbursed by the Company; provided, however, that the Tax Matters Person shall not be entitled to a fee for acting as the Tax Matters Person.

(b) The Tax Matters Person shall promptly, after the receipt of any significant written communication from the IRS or any state or local tax authority in any administrative proceeding at the Company level with respect to the determination of any Company item of income, gain, loss, expense, deduction or credit, mail a copy of such communication to each Member (or former Member) potentially affected thereby including, without limitation, for any

tax period subject thereto, any communications under Section 6231(a) of the Code, as amended by the Revised Partnership Audit Procedures. The Tax Matters Person will use its commercially reasonable efforts to keep the other Members informed about significant developments in any U.S. federal, state or local income tax audit of the Company, and about any significant action that it shall take as the Tax Matters Person.

(c) Following a Member's written request, the Tax Matters Person shall use commercially reasonable efforts to promptly furnish to such Member any information and documentation (including receipts or other proofs of payment of taxes) which is in the Tax Matters Person's possession, or which the Tax Matters Person can obtain with the use of commercially reasonable efforts, and which is reasonably required by such Member (x) to comply in a timely manner with any U.S. federal, state or local tax filing or reporting requirements in respect of the Company or (y) to claim any available tax refunds or exemptions in respect of its share of the income of the Company, provided, that such Member shall be required to incur or bear any upfront or other third party or out of pocket cost or expense required in order to obtain any information or documentation requested by such Member.

(d) With the consent of the Members holding a Majority in Interest, and at the Company's expense, the Tax Matters Person shall determine in good faith whether any elections under Sections 6221(b) and 6226(a) of the Code, as amended by the Revised Partnership Audit Procedures, shall be made. The financial burden of any imputed underpayment (as determined under Section 6225 of the Code, as amended by the Revised Partnership Audit Procedures) or other Tax assessment imposed on the Company and associated interest, adjustments to tax and penalties arising from an adjustment that are imposed on the Company shall be borne by the Members and former Members of the Company based on their proportionate interest in the Company during the applicable tax year under review.

(e) The Members agree to take all actions and provide any information reasonably requested by the Company or the Tax Matters Person to comply with the Revised Partnership Audit Procedures, including, where applicable, filing amended returns as provided in Sections 6225 or 6226 of the Code and providing confirmation thereof to the Tax Matters Person.

(f) This Section 9.5 shall apply to any comparable provision of state or local tax law, and shall survive the dissolution or termination of the Company and the withdrawal or other transfer of interests of or by any Member.

ARTICLE X
Dissolution and Liquidation

10.1 Dissolution. The Company shall be dissolved and its affairs wound up only upon the happening of any of the following events:

(a) Subject to Sections 4.9 and 4.10, upon the election to dissolve the Company by action of the Board and Members holding a Majority in Interest; or

(b) The entry of a decree of judicial dissolution under applicable law; provided, that, notwithstanding anything contained herein to the contrary, no Member shall make an application for the dissolution of the Company pursuant to applicable law without the approval of a Majority in Interest.

Dissolution of the Company shall be effective on the day on which the event occurs giving rise to the dissolution, but the Company shall not terminate until the winding up of the Company has been completed, the assets of the Company have been distributed as provided in Section 10.2 and the Certificate shall have been canceled.

10.2 Liquidation.

(a) Liquidator. Upon a liquidation, dissolution or winding up of the Company, the Board, with the approval of all Investor Managers, shall appoint a person or persons (or may designate the Board itself to so act) to act as the "Liquidator," and such person(s) shall act as the Liquidator unless and until a successor Liquidator is appointed as provided in this Section 10.2. The Liquidator will agree not to resign at any time without 30 days' prior written notice to the Board. The Liquidator may be removed at any time, with or without cause, by notice of removal and appointment of a successor Liquidator approved by the Board, with the approval of all Investor Managers. Any successor Liquidator will succeed to all rights, powers and duties of the former Liquidator. The right to appoint a successor or substitute Liquidator in the manner provided in Section 10.2 will be recurring and continuing for so long as the functions and services of the Liquidator are authorized to continue under the provisions of this Agreement, and every reference in this Agreement to the Liquidator will be deemed to refer also to any such successor or substitute Liquidator appointed in the manner provided in this Section 10.2. The Liquidator will receive compensation for its services as the Board may approve plus reimbursement of the Liquidator's out-of-pocket expenses in performing its duties.

(b) Liquidating Actions. The Liquidator will liquidate the assets of the Company and apply and distribute the proceeds of such liquidation, in the following order of priority, unless otherwise required by mandatory provisions of applicable law:

(i) First, to the payment of the Company's debts and obligations to its creditors (including Members), including sales commissions and other expenses incident to any sale of the assets of the Company, but not including any amounts payable under the Transaction Bonus Plan, if applicable, in order of the priority provided by law;

(ii) Second, to the establishment of and additions to such reserves as the Board, with the approval of all Investor Managers, deems necessary or appropriate; and

(iii) Thereafter, the balance of such proceeds shall be distributed to the Members in accordance with Section 7.2, after giving effect to all contributions, distributions and allocations for all periods, including the period during which such Liquidation occurs and taking into account any Transaction Bonus Plan.

The allocations and distributions provided for in this Agreement are intended to result in the Capital Account of each Member immediately prior to the distribution of the Company's assets pursuant to this Section 10.2(b) being equal to the amount distributable to such Member pursuant to this Section 10.2(b).

(c) Distribution in Kind. Notwithstanding the provisions of Section 10.2(b) which require the liquidation of the assets of the Company, but subject to the order of priorities set forth in Section 10.2(b), if upon dissolution of the Company the Board (including with the approval of all Investor Managers) determines that an immediate sale of part or all of the Company's assets would be impractical or could cause undue loss to the Members, the Board (including with the approval of all Investor Managers) may, in its sole discretion, defer the liquidation of any assets except those necessary to satisfy Company liabilities and reserves, and may, in its absolute discretion, distribute to the Members, in lieu of cash, as tenants in common and in accordance with the provisions of Section 10.2(b), undivided interests in such Company assets as the Liquidator deems not suitable for liquidation. Any such distribution in kind will be subject to such conditions relating to the disposition and management of such properties as the Liquidator deems reasonable and equitable and to any agreements governing the operating of such properties at such time. For purposes of any such distribution, the Board will determine the Fair Market Value of any property to be distributed in accordance with any valuation procedure which the Board reasonably deems appropriate.

(d) Reasonable Time for Winding Up. A reasonable time will be allowed for the orderly winding up of the business and affairs of the Company and the liquidation of its assets pursuant to Section 10.2(b) in order to minimize any losses otherwise attendant upon such winding up. Distributions upon liquidation of the Company (or any Member's interest in the Company) and related adjustments will be made by the end of the Fiscal Year of the liquidation (or, if later, within 90 days after the date of such liquidation) or as otherwise permitted by Treasury Regulation Section 1.704-1(b)(2)(ii)(*b*).

(e) Termination. Upon completion of the distribution of the assets of the Company as provided in Section 10.2(b) hereof, the Company shall be terminated and the Liquidator shall cause the cancellation of the Certificate in the State of Delaware and of all qualifications and registrations of the Company as a foreign limited liability company in all applicable jurisdictions and shall take such other actions as may be necessary to terminate the Company.

ARTICLE XI
Transfer of Units

11.1 Restrictions. Each Member acknowledges and agrees that such Member shall not Transfer any Unit(s) except in accordance with the provisions of this Article XI. Any attempted Transfer in violation of the preceding sentence shall be deemed null and void for all purposes, and the Company will not record any such Transfer on its books or treat any purported transferee as the owner of such Unit(s) for any purpose.

11.2 General Restrictions on Transfer.

(a) Notwithstanding anything to the contrary in this Agreement, no transferee of any Unit(s) received pursuant to a Transfer shall become a Member in respect of or be deemed to have any ownership rights in the Unit(s) so Transferred unless the purported transferee is a Member prior to any such Transfer or is admitted as a Member as set forth in Section 11.3.

(b) Following a Transfer of any Unit(s) that is permitted under this Article XI, the transferee of such Unit(s) shall succeed to the Capital Account associated with such Unit(s) and shall receive allocations and distributions under Articles VI, VII, VIII and X in respect of such Unit(s). Notwithstanding the foregoing, Profits, Losses and other items will be allocated between the transferor and the transferee according to Code Section 706.

(c) Any Member who Transfers all of his or its Units (i) shall cease to be a Member upon such Transfer, and (ii) shall no longer possess or have the power to exercise any rights or powers of a Member of the Company.

(d) The Members acknowledge that certain of the Units issued to employees and consultants to the Company are subject to forfeiture to the Company under certain conditions as provided in a Unit Forfeiture or similar agreement between the applicable Member and the Company. No Member shall be permitted to transfer any Units subject to any such forfeiture right until such right lapses.

(e) Without limiting any provision herein set forth, no Member may Transfer (directly or indirectly, including by offering any of its securities, investing in any other Member or otherwise), any securities of the Company to another Member or any Affiliate thereof or any other third party unless such Member provides prior written notice to the Board (including the Investor Managers), unless such Transfer is a permitted transfer as defined for purposes of Section 11.6(d) hereto.

11.3 Procedures for Transfer. Subject in all events to the general restrictions on Transfers contained in this Article XI, no Transfer of Unit(s) may be completed until the prospective transferee is admitted as a Member of the Company by executing and delivering to the Company a written undertaking to be bound by the terms and conditions of this Agreement in a form acceptable to the Board. Upon the amendment of the Members Schedule by the Company, such prospective transferee shall be admitted as a Member and deemed listed as such on the books and records of the Company and thereupon the Company shall reissue the applicable Units in the name of such prospective transferee. The provisions of this Section 11.3 shall not apply with respect to the Transfer of any Unit(s) to a transferee that is a Member immediately prior to such Transfer.

11.4 Legend. Any certificates or instruments representing the Units will bear the following legend:

"THE TRANSFER OF THE SECURITIES REPRESENTED BY THIS CERTIFICATE OR INSTRUMENT IS SUBJECT TO THE CONDITIONS SPECIFIED IN A LIMITED LIABILITY COMPANY AGREEMENT AMONG THE ISSUER AND ITS MEMBERS. A COPY OF SUCH LIMITED LIABILITY COMPANY AGREEMENT AS IN EFFECT FROM TIME TO TIME WILL BE FURNISHED WITHOUT CHARGE BY THE ISSUER TO THE HOLDER HEREOF UPON WRITTEN REQUEST."

11.5 Limitations.

Notwithstanding anything to the contrary in this Agreement, unless affirmatively waived in writing by the Board (including a majority of the disinterested Managers), no Unit may be Transferred and the Company may not issue any Unit unless (i) such Transfer or issuance, as the case may be, shall not affect the Company's existence or qualification as a limited liability company under the state of its organization, (ii) such Transfer or issuance, as the case may be, shall not cause the Company to be classified as other than a partnership for United States federal income tax purposes (unless the Company has elected to be taxed as a corporation for federal income tax purposes), (iii) such Transfer or issuance, as the case may be, shall not result in a termination of the Company under Code Section 708; (iv) such Transfer or issuance, as the case may be, shall not cause the application of the tax-exempt use property rules of Code Sections 168(g)(l)(B) and 168(h) to the Company or its Members; and (v) such Transfer or issuance, as the case may be, shall be to a person or entity, or any of their Affiliates, who is not a competitor to the Company or an entity in which the Company holds a material interest, as reasonably determined by the Company, except this clause (v) shall not apply to a Transfer in connection with a Healthcare Trigger Event by Merck GHI.

11.6 Additional Transfer Restrictions.

(a) General. Subject to the other provisions of this Article XI, a Member may Transfer Units only if such Member has complied with the terms and requirements of Section 11.6(b), 11.6(c), 11.6(d) and 11.6(e), as applicable.

(b) Right of First Refusal. In the event that a Member (the "Transferring Member") proposes to sell or otherwise Transfer (other than pursuant to a Public Offering or pursuant to an Approved Company Sale) any Units pursuant to a bona fide offer from a third party (the "Proposed Transferee"), the Transferring Member must first give the Major Holders (the "Non-Transferring Major Holders") written notice (the "ROFR Notice") of the number of Units to be transferred, the price, terms and conditions of the proposed sale, including the identity of the Proposed Transferee, and a copy of any written proposal, term sheet, letter of

intent or other agreement relating to the proposed sale. Within ten (10) days after the receipt of the ROFR Notice, the Non-Transferring Major Holders (or their assignees) may elect to purchase (as among themselves, pro rata in accordance with their respective Percentage Interests or in such other proportions as they shall agree; together with a pro rata right of oversubscription for all Major Holders who elect to purchase their full pro rata amount), and the Transferring Member agrees to sell to the Non-Transferring Major Holders (and their assignees), at the price and on the terms specified in the ROFR Notice, all or any portion of the Units as such Non-Transferring Major Holders (or their assignees) shall request (after taking into account such oversubscription rights). In the event the Non-Transferring Major Holders (or their assignees) elect to purchase all or part of the Units proposed to be transferred, the closing of such purchase will take place five (5) days after the expiration of such ten (10) day period or such other date as the parties shall agree. To the extent that the terms of payment set forth in the ROFR Notice consist of property other than cash against delivery, the Non-Transferring Major Holders (or their assignees) may substitute cash of equivalent value in lieu thereof. To the extent the Non-Transferring Major Holders (or their assignees) do not exercise in full this right of first refusal within the twenty (20) day period specified above (collectively, the "ROFR Notice Period"), the Transferring Member will have sixty (60) days thereafter to sell the Units not elected to be purchased by the Non-Transferring Major Holders (and their assignees) at the price and upon the terms and conditions no more favorable (in any material respect) to the purchasers of such Units than specified in the ROFR Notice. In the event the Transferring Member has not sold such Units within such sixty (60) day period, the Transferring Member may not thereafter sell any Units without first offering such Units to the Major Holders in the manner provided in this Section 11.6(b). The restrictions set forth in this Section 11.6(b) shall not apply in the following cases: (i) any Member may sell or transfer Units to the Company pursuant to a repurchase or similar right (including any transfer upon a forfeiture of Units pursuant to any subscription or similar agreement pursuant to which such shares were acquired); and (ii) any Member may sell or transfer any Units to a Permitted Transferee (as defined below) subject to Sections 11.3 and 11.5.

(c) Right of Co-Sale. To the extent that a Non-Transferring Major Holder does not elect to purchase all or part of the Units proposed to be transferred by the Transferring Member pursuant to subsection 11.6(b), then the Non-Transferring Major Holder shall have the right to participate in the proposed sale of Units to the Proposed Transferee on the same terms and conditions as specified in the ROFR Notice. The Non-Transferring Major Holder shall provide notice to the Transferring Member within ten (10) days after the receipt of the ROFR Notice indicating the number of Units that the Non-Transferring Major Holder wishes to sell under his, her or its right to participate. To the extent one or more of the Non-Transferring Major Holders exercises such right of participation in accordance with the terms and conditions of this Section 11.6(c), the number of Units that the Transferring Member may sell shall be correspondingly reduced. Each Non-Transferring Major Holder (a "Selling Major Holder") may sell all or any part of that number of Units equal to the product obtained by multiplying (i) the aggregate number of Units covered by the ROFR Notice that have not been subscribed for pursuant to Section 11.6(b) by (ii) a fraction, the numerator of which is the number of Units owned by the Selling Major Holders on the date of the ROFR Notice and the denominator of which the total number of Units owned by all of the Selling Major Holders and the Transferring Member on the date of the ROFR Notice.

(d) Permitted Transfers; Healthcare Trigger Event. The restrictions contained in Sections 11.6(b) and Section 11.6(c) shall not apply with respect to any Transfer of Units by any Member (A) in the case of a Member who is an individual, pursuant to applicable laws of descent and distribution or, if such Transfer is made for bona fide estate planning purposes (which bona fide estate planning purposes, if requested by the Board, shall be verified by a legal opinion from counsel experienced in such matters), then to any Immediate Family Member of such Member, any entity controlled or under common control with such Member or a trust or similar vehicle established by such Member, (B) in the case of a non-individual Member, to its Affiliates or current or former stockholders, partners, including limited partners, or members; provided, in each case, that any such transferee shall have complied with the requirements of Section 11.3 and 11.5, or (C) in the case of Merck GHI, upon a HealthCare Trigger Event, as a condition precedent to such Healthcare Trigger Event and subject in all cases to applicable law, Merck GHI shall have the right, in its sole discretion, to transfer its Series A Preferred Units to a third party reasonably acceptable to the Company without the application of Sections 11.6(b) or 11.6(c). The Company will fully cooperate with such sale, including with respect to due diligence by any potential purchaser and the execution of any reasonably required documents and obtaining of reasonably necessary consents and waivers by existing Members. The transferees permitted by this Section 11.6(d) are referred to herein as "Permitted Transferees".

(e) Approved Company Sale.

(i) If (A) the Board (if required by applicable law) and (B) the holders of (1) a Majority in Interest and (2) Members holding Preferred Units representing the Required Series A Consent (including the approval of each of CV II and Merck GHI so long as such party holds Preferred Units) and the Required Series B Consent (including the approval of each of CV II and Merck GHI so long as such party holds Preferred Units) (the "Selling Members"), approve a sale of all or substantially all of the Company's assets determined on a consolidated basis or a sale of all (or a lesser percentage, if necessary, as determined by the Selling Members for accounting, tax or other reasons) of the Company's outstanding Units or equivalents (in either case, whether by merger, recapitalization, consolidation, reorganization, combination or otherwise) or any other transaction which has the same effect as any of the foregoing, to an Independent Third Party or group of Independent Third Parties (each such sale or transaction, an "Approved Company Sale"), then each holder of Units will vote for, consent to and raise no objections against the Approved Company Sale or the process. If the Approved Company Sale is structured as a merger or consolidation, then each holder of Units shall waive any dissenter' rights, appraisal rights or similar rights in connection with such merger or consolidation. If the Approved Company Sale is structured as a Transfer of Units, then each holder of Units shall agree to sell all of his or its Units and rights to acquire Units on the same terms and conditions, in all material respects, as applicable to the respective types of Units to be Transferred in such Approved Company Sale. Each holder of Units shall take all necessary or desirable actions in connection with the consummation of an Approved Company Sale as requested by the Board, including, without limitation, executing the applicable purchase agreement. If the Board, the Company or any of the holders of Units enter into any negotiation or transaction for which Rule 506 (or any similar rule then in effect) promulgated by the Securities and Exchange Commission may be available with respect to such negotiation or transaction (including a merger, consolidation or other reorganization), each holder of Units who is not an "accredited investor," as that term is defined in Regulation D as promulgated under the Securities Act, will, at the

request of the Company, appoint either a purchaser representative (as such term is defined in Rule 501 under the Securities Act) designated by the Company, in which event the Company will pay the fees of such purchaser representative, or another purchaser representative (reasonably acceptable to the Company), in which event such holder will be responsible for the fees of the purchaser representative so appointed.

(ii) Notwithstanding the foregoing, no Member will be required to comply with Section 11.6(e)(i) above in connection with any proposed Approved Company Sale (the "Proposed Sale") unless:

(A) the liability for indemnification, if any, of such Member in the Proposed Sale and for the inaccuracy of any representations and warranties made by the Company or its Members in connection with such Proposed Sale, is several and not joint with any other Person (except to the extent that funds may be paid out of an escrow established to cover breach of representations, warranties and covenants of the Company as well as breach by any Member of any of identical representations, warranties and covenants provided by all Members), and is pro rata in proportion to, and does not exceed, the amount of consideration paid to such Member in connection with such Proposed Sale; and

(B) upon the consummation of the Proposed Sale, (i) each holder of each class or series of the Company's Units will receive the same form of consideration for their Units of such class or series as is received by other holders in respect of their Units of such same class or series, (ii) each holder of a series of Preferred Units will receive the same amount of consideration per share of such series of Preferred Units as is received by other holders in respect of their shares of such same series, (iii) each holder of Common Units will receive the same amount of consideration per Common Unit as is received by other holders in respect of their Common Units, and (iv) unless Members holding Preferred Units representing the Required Series A Consent (including the approval of each of CV II and Merck GHI so long as such party holds Preferred Units) and the Required Series B Consent (including the approval of each of CV II and Merck GHI so long as such party holds Preferred Units) elect to receive a lesser amount by written notice given to the Company at least ten (10) days prior to the effective date of any such Proposed Sale, the aggregate consideration receivable by all holders of the Preferred Units and Common Units shall be allocated among the holders of Preferred Units and Common Units on the basis of the relative liquidation preferences to which the holders of the Preferred Units and the holders of Common Units are entitled in a Deemed Liquidation Event (assuming for this purpose that the Proposed Sale is a Deemed Liquidation Event) in accordance with Section 10.2(b).

11.7 Initial Public Offering; Conversion to C Corporation.

(a) If at any time (A) the Board and (B) the holders of (1) a Majority in Interest and (2) subject to Section 11.7(b), Preferred Units representing the Required Series A Consent (including the approval of each of CV II and Merck GHI so long as such party holds Preferred Units) and the Required Series B Consent (including the approval of each of CV II and Merck GHI so long as such party holds Preferred Units), desire to cause (i) a transfer of all or a substantial portion of (x) the assets of the Company or any of its subsidiaries or (y) the Units, to a newly organized corporation or other business entity ("Newco"), (ii) a merger or consolidation of the Company or any of its subsidiaries into or with a Newco as provided under Section 18-209 of the Delaware Act or otherwise, (iii) a conversion of the Company to a corporation pursuant to Section 18-214 of the Delaware Act or otherwise, (iv) another restructuring of all or substantially all of the assets or Units of the Company into a Newco, including by way of the conversion of the Company into a Delaware corporation (any such corporation, also "Newco"), in any case in anticipation of or otherwise in connection with a registered initial public offering of securities of a Newco (an "Initial Public Offering") or for any other bona fide business reason, each Member shall take such steps to effect such transfer, merger, consolidation, distribution or other restructuring as may be requested by the Board, including, without limitation, transferring or tendering such Member's Units to a Newco in exchange or consideration for shares of capital stock or other equity interests of Newco, determined in accordance with the valuation procedures set forth in Section 11.7(b).

(b) In connection with a transaction described in Section 11.7(a) (a "Corporate Conversion"), (1) the Units (including Preferred Units) shall be exchanged, converted into or redeemed for shares with substantially equivalent economic, governance, priority and other rights and privileges as in effect immediately prior to such Corporate Conversion (including without limitation board size and composition and voting and approval rights and liquidation preferences), and except as otherwise approved by the Board, (2) each holder of outstanding Units issued as "profits interest" (a "PI Holder") shall be converted or exchanged for (x) shares of common stock of Newco in an amount equal to the Capital Account balance of such PI Holder associated with such Units (after taking into account the adjustment to Capital Accounts to reflect Book Value pursuant to Section 6.2(a)(iv)) divided by the fair market value of one share of common stock (the "Per Share FMV") of Newco (such number of shares being referred to herein as the "New Common Shares"), and (y) for each PI Holder who at such time is an employee or active consultant to the Company, a stock option grant for a number of shares of common stock of Newco equal to the total number of outstanding Units issued as "profits interest" then held by such PI Holder minus the New Common Shares (such number subject to an appropriate adjustment for any stock split, stock combination or similar event in connection with the Corporate Conversion), with an exercise price per common share equal to the Per Share FMV (and with all such securities subject to identical vesting and similar restrictions). In connection with a Corporate Conversion, the Board shall cause Newco to enter into such agreements and adopt a certificate of incorporation and bylaws as are necessary to provide the Members with rights with respect to such corporation which are substantially similar to the rights of such Members pursuant to this Agreement as mutually agreed upon by the Company, CV II and Merck GHI. Notwithstanding anything herein to the contrary, including, without limitation, Sections 4.9 and 4.10 and Section 11.7(a)((B)(2), neither the Required Series A Consent nor the Required Series B Consent, nor the consent of either CV II or Merck GHI, shall be required in connection with any Corporate Conversion that is in anticipation of (and conditioned upon) a Qualified Public Offering and that satisfies the conditions of this Section 11.7(b) (including the preceding sentence).

(c) Each Member hereby agrees (i) not to effect any sale or distribution of any Common Units (or any equity securities issued in exchange for, or distributed with respect to, Common Units, including any equity securities of Newco) or any securities convertible into or exchangeable or exercisable for Common Units (or any equity securities issued in exchange for, or distributed with respect to, Common Units, including any equity securities of Newco), during the seven days prior to and the 180-day period beginning on the effective date of an Initial Public Offering (except as part of such Initial Public Offering, if otherwise permitted), unless the underwriters managing such Initial Public Offering otherwise agree (which agreement shall be equally applicable to all Members) and (ii) to execute and deliver any reasonable agreement which is consistent with the provisions of this Section and which may be required by the underwriters managing such Initial Public Offering.

(d) Each Member hereby makes, constitutes and appoints the Company, with full power of substitution and resubstitution, its true and lawful attorney, for it and in its name, place and stead and for its use and benefit, to act as its proxy in respect of any vote or approval of Members required to give effect to this Section, including any vote or approval required under Section 18-209 of the Delaware Act. The proxy granted pursuant to this Section is a special proxy coupled with an interest and is irrevocable.

ARTICLE XII
Miscellaneous Provisions

12.1 Notices.

(a) All notices, requests and other communications hereunder must be in writing and will be deemed to have been duly given only if delivered personally, by facsimile (against facsimile confirmation) or electronic mail transmission or mailed by a recognized overnight courier prepaid, to (i) any Member, at such Member's last known address as set forth on the Company's books and records, and (ii) the Company, to the Company's Chief Executive Officer or Secretary at the Company's principal place of business (or in any case to such other address as the addressee may from time to time designate in writing to the sender).

(b) All such notices, requests and other communications will (i) if delivered personally to the address as provide in Section 12.1(a) be deemed given upon delivery, (ii) if delivered by facsimile or electronic mail transmission to the facsimile number or email address as provided for in Section 12.1(a), be deemed given upon facsimile confirmation or delivery of such email (provided, in the case of electronic mail, no bounce back error message is received) and (iii) if delivered by overnight courier to the address as provided in Section 12.1(a), be deemed given on the earlier of the first business day following the date sent by such overnight courier or upon receipt (in each case regardless of whether such notice, request or other communication is received by any other person to whom a copy of such notice is to be delivered pursuant to this Section 12.1).

12.2 Governing Law. All issues and questions concerning the application, construction, validity, interpretation and enforcement of this Agreement and the exhibits and schedules to this Agreement shall be governed by, and construed in accordance with, the laws of the State of Delaware, and specifically the Delaware Act, without giving effect to any choice of law or conflict of law rules or provisions (whether of the State of Delaware or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the State of Delaware.

12.3 No Action for Partition. No Member shall have any right to maintain any action for partition with respect to the property of the Company.

12.4 Headings and Sections. The headings in this Agreement are inserted for convenience only and are in no way intended to describe, interpret, define, or limit the scope, extent or intent of this Agreement or any provision of this Agreement. Unless the context requires otherwise, all references in this Agreement to Sections, Articles, Exhibits or Schedules shall be deemed to mean and refer to Sections, Articles, Exhibits or Schedules of or to this Agreement.

12.5 Amendments. (a) Except as otherwise provided in this Section 12.5 and subject to Sections 4.9 and 4.10, this Agreement may be amended, in whole or in part, only through a written amendment executed by (i) the Board, (ii) a Majority in Interest and (iii) the holders of Preferred Units representing the Required Series A Consent (including the approval of each of CV II and Merck GHI so long as such party holds Preferred Units) and the Required Series B Consent (including the approval of each of CV II and Merck GHI so long as such party holds Preferred Units); provided that (x) in connection with a Qualified Future Financing, the Required Series A Consent and the Required Series B Consent for purposes of the foregoing clause (iii) shall only require the consent of the holders of a majority of the total number of outstanding Preferred Units of each class of Preferred Units (voting as separate classes) (and, for the sake of clarity, shall not require the prior approval of each of Merck GHI and CV II) solely to create the securities (and associated rights and obligations) to be issued in connection therewith, and (y) neither the Required Series A Consent nor the Required Series B Consent (nor the specific approval of either CV II or Merck GHI) shall be required for a Corporate Conversion that is in anticipation of (and conditioned upon) a Qualified Public Offering and that satisfies the conditions of Section 11.7(b). Each Member shall be promptly notified of any amendment to this Agreement made pursuant to this Section.

(b) An amendment to any provision of this Agreement that calls for a higher level of approval of the Members or the approval of certain specified Members shall, in addition to the execution percentage set forth in Section 12.5(a), require the same form of approval as is set forth in such provision. Any amendment to this Section 12.5(b) or 12.5(c) shall require the unanimous consent of the Members.

(c) Notwithstanding anything to the contrary contained in this Section 12.5, there shall be no amendment (i) to Section 3.1(c)(i), 3.1(c)(iv) or 3.1(d) of this Agreement without the vote or written consent of a majority of the Units held by the Founding Investors and their Immediate Family Members, (ii) to Section 3.1(c)(ii), 3.1(c)(iv), 3.1(d), 3.1(i), 3.6. 11.5 (with respect to a Healthcare Trigger Event) or 11.6(d) (with respect to a Healthcare Trigger Event) of

this Agreement, or any specific right granted to Merck GHI hereunder, without the vote or written consent of Merck GHI; or (iii) to Section 3.1(c)(iii), 3.1(c)(iv), 3.1(d), 3.1(i) or 3.6 of this Agreement, or any specific right granted to CV II hereunder, without the vote or written consent of CV II.

(d) Notwithstanding anything to the contrary contained in this Section 12.5, there shall be no amendment to this Agreement that (i) increases a Member's obligation to make capital contributions to the Company, unless the amendment is consented to by such Member, or (ii) imposes personal liability upon a Member for any debts or obligations of the Company, unless the amendment is consented to by such Member.

(e) Notwithstanding the foregoing provisions of this Section 12.5, the Board (including at least two Investor Managers) may, without the consent of any Members, amend this Agreement to (i) reflect changes validly made in the membership of the Company and the Capital Contributions of the Members; (ii) reflect a change in the name of the Company; (iii) make a change that is necessary or, in the opinion of the Board, advisable to qualify the Company as a partnership for tax purposes or an entity in which the Members have limited liability under the laws of any state; (iv) subject to Section 12.5(d), cure any ambiguity, correct or supplement any provision in this Agreement that would be inconsistent with any other provision in this Agreement, or make any other provision with respect to matters or questions arising under this Agreement that will not be inconsistent with the provisions of this Agreement; (v) make a change in any provision of this Agreement that requires any action to be taken by or on behalf of the Board or the Company pursuant to the requirements of applicable law if the provisions of applicable law are amended, modified or revoked so that the taking of such action is no longer required; (vi) prevent the Company or the Board from in any manner being (A) deemed an "investment company" subject to the provisions of the Investment Company Act, (B) treated as a "publicly traded partnership" for purposes of Code Section 7704 or (C) subject to federal income tax as an association taxable as a corporation; (vii) cause the Company to elect to convert the Company into a "Section 3(c)(7)" fund under the Investment Company Act; or (viii) make any other amendments similar to the foregoing. A Member's right to object to an amendment pursuant to Section 12.5(e)(iv) on the grounds that such amendment is materially adverse to such Member shall expire at the close of business on the 30th day following notice to such Member of such amendment.

12.6 Number and Gender. Where the context so indicates, the masculine shall include the feminine, the neuter shall include the masculine and feminine, and the singular shall include the plural.

12.7 Binding Effect. Except as otherwise provided to the contrary in this Agreement, this Agreement shall be binding upon and inure to the benefit of the Members, their distributees, heirs, legal representatives, executors, administrators, successors and permitted assigns.

12.8 Counterparts; Facsimile. This Agreement may be executed in multiple counterparts including, but not limited to, transmittal via facsimile or PDF, each of which shall be deemed to be an original and shall be binding upon the Member who executed the same, but all of such counterparts shall constitute the same agreement.

12.9 Severability. Whenever possible, each provision of this Agreement shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be prohibited by or invalid under applicable law, such provision shall be ineffective only to the extent of such prohibition or invalidity, without invalidating the remainder of this Agreement.

12.10 Remedies. Each of the parties to this Agreement shall be entitled to enforce its rights under this Agreement specifically, to recover damages and costs (including reasonable attorney's fees) caused by any breach of any provision of this Agreement and to exercise all other rights existing in its favor. The Members agree and acknowledge that money damages may not be an adequate remedy for any breach of the provisions of this Agreement and that any party may in its sole discretion apply to any court of law or equity of competent jurisdiction (without posting any bond or deposit) for specific performance and/or other injunctive relief in order to enforce or prevent any violations of the provisions of this Agreement.

12.11 Business Days. If any time period for giving notice or taking action under this Agreement expires on a day which is a Saturday, Sunday or holiday in the state in which the Company's chief executive office is located, the time period shall be automatically extended to the business day immediately following such Saturday, Sunday or holiday.

12.12 Waiver of Jury Trial. EACH PARTY TO THIS AGREEMENT HEREBY WAIVES, TO THE EXTENT PERMITTED BY APPLICABLE LAW, TRIAL BY JURY IN ANY LITIGATION IN ANY COURT WITH RESPECT TO, IN CONNECTION WITH, OR ARISING OUT OF THIS AGREEMENT OR THE VALIDITY, PROTECTION, INTERPRETATION, COLLECTION OR ENFORCEMENT THEREOF.

12.13 No Strict Construction. The parties to this Agreement have participated jointly in the negotiation and drafting of this Agreement. In the event an ambiguity or question of intent or interpretation arises, this Agreement shall be construed as if drafted jointly by the parties to this Agreement, and no presumption or burden of proof shall arise favoring or disfavoring any party by virtue of the authorship of any of the provisions of this Agreement.

12.14 Entire Agreement. Except as otherwise expressly set forth in this Agreement, this Agreement and the other agreements referred to in this Agreement embody the complete agreement and understanding among the parties to this Agreement with respect to the subject matter of this Agreement and supersedes and preempts any prior understandings, agreements or representations by or among the parties, written or oral, which may have related to the subject matter of this Agreement in any way.

12.15 Parties in Interest. Nothing herein shall be construed to be to the benefit of or enforceable by any third party including, but not limited to, any creditor of the Company.

12.16 Arbitration Except as specifically provided herein, any dispute or controversy arising under or in connection with this Agreement shall be settled exclusively by arbitration, conducted before a single arbitrator (to be mutually agreed upon) in the State of New Jersey, in accordance with the rules of the American Arbitration Association then in effect. If the parties cannot agree on a single arbitrator, each party shall appoint one arbitrator who shall then jointly appoint a single arbitrator. Judgment shall be final and may be entered on the arbitrator's award in any court having jurisdiction. The arbitrator shall have the authority to allocate between the parties the expense of any such arbitration based on his determination of the relative fault, if any, of the parties. The parties may enforce any final determination in any state or federal court having jurisdiction over the dispute. For the purpose of any action or proceeding instituted with respect to any final determination, the parties hereby irrevocably submits to the jurisdiction of such courts, irrevocably consents to the service of process by registered mail or personal service and hereby irrevocably waives, to the fullest extent permitted by law, any objection which he may have or hereafter have as to personal jurisdiction, the laying of the venue of any such action or proceeding brought in any such court and any claim that any such action or proceeding brought in any court has been brought in an inconvenient form.

* * * *

IN WITNESS WHEREOF, the undersigned Members consisting the Members required under Section 12.5 of the Prior Agreement have executed this Second Amended and Restated Limited Liability Company Agreement of ElectroCore, LLC as of the date first written above.

FOUNDING INVESTORS:

/s/ Joseph P. Errico
Joseph P. Errico

/s/ Dr. Thomas Errico
Dr. Thomas Errico

The Thomas J. Errico 2010 Family Trust

By: /s/ Joseph P. Errico
Name: Joseph P. Errico
Title: Trustee

/s/ Kathryn Theofilos
Kathryn Theofilos

ADDITIONAL MEMBERS:

Core Ventures 2010, LLC

By: /s/ Joseph P. Errico
Name: Joseph P. Errico
Title: Manager

2010 Core Investment Partners, LLC

By: /s/ Joseph P. Errico
Name: Joseph P. Errico
Title: Manager

NeuroCore Investment Partners, LLC

By: /s/ Joseph P. Errico
Name: Joseph P. Errico
Title: Manager

IC-4, LLC

By: /s/ Joseph P. Errico
Name: Joseph P. Errico
Title: Manager

IC-2, LLC

By: /s/ Joseph P. Errico
Name: Joseph P. Errico
Title: Manager

IC-1, LLC

By: /s/ Joseph P. Errico
Name: Joseph P. Errico
Title: Manager

/s/ Steve Mendez
Steve Mendez

/s/ Bruce Simon
Bruce Simon

/s/ Francis Amato
Francis Amato

/s/ Glenn Vraniak
Glenn Vraniak

/s/ Eric Liebler
Eric Liebler

/s/ Dan Duhart
Dan Duhart

Core Ventures, LLC

By: /s/ Joseph P. Errico
Name Joseph P. Errico
Title: Managing Director

Paulson Electrocore Investments LLC

By: /s/ Starla Goff
Starla Goff, CEO

Paulson Investment Company

By: /s/ Mark Finckle
Name:Mark Finckle
Title: Head of Investment Banking

HOLDERS OF SERIES A PREFERRED UNITS:

Merck Global Health Innovation Fund, LLC

By: /s/ William Taranto
Name: William Taranto
Title: Managing Director

Conure ElectroCore, LLC
By: Bio Brazil, LLC, its Manager

By: /s/ Lisa Rhoads
Name: Lisa Rhoads
Title: Manager

Core Ventures, LLC

By: /s/ Joseph P. Errico
Name: Joseph P. Errico
Title: Managing Director

/s/ James L. L. Tullis
James L. L. Tullis

Tullis Opportunity Fund II, LP
By: its General Partner, Tullis Opportunity Fund II, LLC

By: /s/ James L.L. Tullis
Name: James L.L. Tullis
Title: Manager

Skyview Investments, LLC

By: /s/ Michael Stansky
Name: Michael Stansky
Title: Managing Member

/s/ Michael Stansky
Michael Stansky

/s/ Kenneth G. Langone
Kenneth G. Langone

John F. Welch, Jr. 2004 Revocable Trust

By: /s/ John F. Welch, Jr.
Name: John F. Welch, Jr.
Title: Trustee

ECNG, LLC

By: /s/ JP Errico
Name: JP Errico
Title: Manager

Schedule A

Officers of ElectroCore, LLC
(as of the date hereof)

Francis R. Amato	Chief Executive Officer
Joseph P. Errico	Chief Science and Strategy Officer
Glenn Vraniak	Chief Financial Officer
Steve Mendez	Vice President and Chief Technical Officer
Dan Duhart	Global Vice President, Sales and Marketing
Bruce Simon	Vice President, Research
Eric Liebler	Vice President, Scientific, Medical and Government Affairs
Mike Romaniw	Vice President, Quality Assurance

Schedule B

Board of Managers
(as of the date hereof)

Managers Designated by the Founding Investors

Joseph P. Errico
Dr. Thomas J. Errico
Kathryn K. Theofilos

Manager Designated by Merck GHI

David Rubin

Manager Designated by CV II

Dr. Peter Staats

Manager Mutually Designated by Merck GHI and CV II

Trevor Moody

Independent Managers

Frank Amato
James L.L. Tullis
Nicholas Colucci

Exhibit 3.4

EXECUTION COPY

THIRD AMENDED AND RESTATED

LIMITED LIABILITY COMPANY AGREEMENT

OF

ELECTROCORE, LLC,

A DELAWARE LIMITED LIABILITY COMPANY

Dated as of November 21, 2017

TABLE OF CONTENTS

THIRD AMENDED AND RESTATED
LIMITED LIABILITY COMPANY AGREEMENT
OF
ELECTROCORE, LLC

This THIRD AMENDED AND RESTATED LIMITED LIABILITY COMPANY AGREEMENT (this "Agreement") dated as of November 21, 2017 of ElectroCore, LLC (the "Company"), a Delaware limited liability company, is made and entered into by and among the Existing Members of the Company together with such additional Persons who become a party hereto.

WHEREAS, the Existing Members are parties to that certain Second Amended and Restated Limited Liability Company Agreement of the Company, dated as of August 18, 2017 (the "Second A&R Agreement"); and

WHEREAS, the Existing Members desire to amend and restate the Second A&R Agreement in its entirety as set forth herein to authorize an additional class of Series B Preferred Units to be designated as "Series B-1 Preferred Units" and to make certain other changes to the Second A&R Agreement including changes to the composition of the Company's Board of Managers.

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein made and other good and valuable consideration, the Members hereby agree that the Second A&R Agreement is hereby amended and restated in its entirety as follows:

ARTICLE I
Definitions

1.1 Definitions. The following terms used in this Agreement shall have the following meanings (unless otherwise expressly provided in this Agreement):

"A&R Agreement" means that certain Amended and Restated Limited Liability Company Agreement of the Company dated as of March 28, 2013.

"Adjusted Capital Account Deficit" means, with respect to any Member, the deficit balance, if any, in such Member's Capital Account as of the end of the relevant Taxable Year, after giving effect to the following adjustments:

(i) Crediting to such Capital Account any amount which such Member is obligated to restore or is deemed to be obligated to restore pursuant to Treasury Regulation Sections 1.704-1(b)(2)(ii)(c), 1.704-2 (g)(1), and 1.704-2(i); and

(ii) Debiting to such Capital Account the items described in Treasury Regulation Section 1.704-1(b)(2)(ii)(d)(4), (5) and (6).

"Adjusted Taxable Income" of a Member for a Fiscal Year (or portion thereof) with respect to Units held by such Member means the federal taxable income (or alternative

minimum taxable income, as the case may be) allocated by the Company to the Member with respect to such Units (as adjusted by any final determination in connection with any tax audit or other proceeding) for such Fiscal Year (or portion thereof); provided that such taxable income (or alternative minimum taxable income, as the case may be) shall be computed (i) as if all excess taxable losses and excess taxable credits allocated with respect to such Units were carried forward (taking into account the character of any such loss carryforward as capital or ordinary), and (ii) taking into account any special basis adjustment with respect to such Member resulting from an election by the Company under Code Section 754.

"Affiliate" means, with respect to any specified Person, any other Person who, directly or indirectly, controls, is controlled by, or is under common control with such Person, including, without limitation, any general partner, managing member, officer or director of such Person or any venture capital fund now or hereafter existing that is controlled by one or more general partners or managing members of, or shares the same management company with, such Person.

"AIH" means AIH-Electro, LLC, an Affiliate of American Investment Holdings, LLC, a Delaware limited liability company.

"AIH/CV II Series B Percentage" means, as of the applicable measurement date, the number, expressed as a percentage, equal to the sum of the percentage of outstanding Series B Preferred Units held of record by AIH (together with its Affiliates, including the Vinik Family Foundation), plus the percentage of outstanding Series B Preferred Units held of record by CV II.

"A&R Series B Purchase Agreement" means the Amended and Restated Series B Preferred Unit Purchase Agreement dated as of the date hereof among the Company and the purchasers of Series B Preferred Units party thereto providing for the issuance of up to 114,285,714 Series B Preferred Units, as such agreement may be amended from time to time in accordance therewith.

"Available Cash" shall have the meaning set forth in Section 7.1(a).

"Bankruptcy" means, with respect to a Member, that (i) such Member has (A) made an assignment for the benefit of creditors; (B) filed a voluntary petition in bankruptcy; (C) been adjudged bankrupt or insolvent, or had entered against such Member an order of relief in any bankruptcy or insolvency proceeding; (D) filed a petition or an answer seeking for such Member any reorganization, arrangement, composition, readjustment, liquidation, dissolution or similar relief under any statute, law or regulation or filed an answer or other pleading admitting or failing to contest the material allegations of a petition filed against such Member in any proceeding of such nature; or (E) sought, consented to, or acquiesced in the appointment of a trustee, receiver or liquidator of such Member or of all or any substantial part of such Member's properties; (ii) 120 days have elapsed after the commencement of any proceeding against such Member seeking reorganization, arrangement, composition, readjustment, liquidation, dissolution or similar relief under any statute, law or regulation and such proceeding has not been dismissed; or (iii) 90 days have elapsed since the appointment without such Member's consent or acquiescence of a trustee, receiver or liquidator of such Member or of all or any substantial part of such Member's properties and such appointment has not been vacated or stayed or the appointment is not vacated within 90 days after the expiration of such stay.

"Board" means the Company's Board of Managers as constituted from time to time in accordance with Article III hereto.

"Book Value" means, with respect to any Company asset, the adjusted basis of such asset for federal income tax purposes, except as follows:

(a) The initial Book Value of any Company asset contributed by a Member to the Company shall be the gross Fair Market Value of such Company asset as of the date of such contribution;

(b) The Book Value of each Company asset shall be adjusted to equal its respective gross Fair Market Value, as provided in Section 6.2(a)(iv);

(c) The Book Value of a Company asset distributed to any Member shall be the Fair Market Value of such Company asset as of the date of distribution thereof;

(d) The Book Value of each Company asset shall be increased or decreased, as the case may be, to reflect any adjustments to the adjusted basis of such Company asset pursuant to Section 734(b) or Section 743(b) of the Code, but only to the extent that such adjustments are taken into account in determining Capital Account balances pursuant to Treasury Regulations Section § 1.704-1(b)(2)(iv)(*m*); provided, that Book Values shall not be adjusted pursuant to this subparagraph (d) to the extent that an adjustment pursuant to subparagraph (b) above is made in conjunction with a transaction that would otherwise result in an adjustment pursuant to this subparagraph (d); and

(e) If the Book Value of a Company asset has been determined or adjusted pursuant to subparagraphs (a), (b) or (d) above, such Book Value shall thereafter be adjusted to reflect the Depreciation taken into account with respect to such Company asset for purposes of computing Profits and Losses.

"Capital Account" means the capital account maintained for a Member pursuant to Section 6.2.

"Capital Contribution" means any contribution to the capital of the Company in cash or property by a Member, whenever made.

"Certificate" means the Certificate of Formation of the Company under the Delaware Act.

"Code" means the United States Internal Revenue Code of 1986, as amended from time to time.

"Common Investors" means the holders of Common Units set forth on Schedule C hereto.

"Common Preference Amount" means the aggregate amount previously paid by the Common Investors for the Common Units held by such Members as of the date of the Second A&R Agreement. The Common Preference Amount for each Common Investor is the amount set forth for each such Common Investor on Schedule C hereto opposite each such Common Investor's name under the column titled "Common Preference Amount", and shall be fixed as of the date of the Second A&R Agreement.

"Common Preference Units" means the Common Units issued to each Common Investor pursuant to Section 5.1(a)(ii) of the Second A&R Agreement. The Common Preference Units issued to each Common Investor are set forth on Schedule C hereto opposite each such Common Investor's name under the column titled "Common Preference Units".

"Common Units" means the Units designated as Common Units hereunder, which Units shall have the designations, preferences and/or special rights set forth in this Agreement applicable to such class of Units.

"Company Minimum Gain" has the meaning set forth for "partnership minimum gain" in Treasury Regulation Section 1.704-2(d).

"Compensation Committee" means the Committee of the Board established to provide assistance to the Board with respect to compensation matters, which may include authority delegated by the Board to take any and all actions on behalf of the Company from time to time reasonably related to compensation of the Company's executive officers, including salaries, bonuses and equity grants.

"Corporate Conversion" shall have the meaning set forth in Section 11.7.

"CV Series A Warrant" means that certain warrant, dated March 15, 2013, to purchase up to 6,800,223 Series A Preferred Unit issued by the Company to CV II, which warrant has since expired.

"CV II" means Core Ventures II, LLC, a Delaware limited liability company.

"Deemed Liquidation Event" shall mean any of the following events, unless the holders of at least (x) 66% of the outstanding Series A Preferred Units and (y) 66% of the outstanding Series B Preferred Units and Series B-1 Preferred Units, voting together as a single class, elect otherwise by written notice sent to the Company prior to the effective date of any such event; provided that such election must include the prior approval of each of CV II, Merck GHI and AIH (so long as such party (including its Affiliates) holds at least 10,000,000 Preferred Units (such number adjusted for unit splits, combinations and similar transactions occurring after the date hereof in respect of the Preferred Units)):

(a) a merger or consolidation in which (i) the Company is a constituent party or (ii) a subsidiary of the Company is a constituent party and the Company issues membership interests (or shares of its capital stock if has become a corporation) pursuant to such merger or consolidation, except any such merger or consolidation involving the Company or a subsidiary in which the membership interests (or shares of capital stock if it has become a corporation) of

the Company outstanding immediately prior to such merger or consolidation continue to represent, or are converted into or exchanged for membership interests (or shares of its capital stock if has become a corporation) that represent, immediately following such merger or consolidation, at least a majority, by voting power, of the membership interests (or shares of its capital stock if has become a corporation) of (1) the surviving or resulting entity or (2) if the surviving or resulting entity is a wholly owned subsidiary of another entity immediately following such merger or consolidation, the parent entity of such surviving or resulting entity; or

(b) the sale, lease, transfer, exclusive license or other disposition, in a single transaction or series of related transactions, by the Company or any subsidiary of the Company of all or substantially all the assets of the Company and its subsidiaries taken as a whole or the sale or disposition (whether by merger or otherwise) of one or more subsidiaries of the Company if substantially all of the assets of the Company and its subsidiaries taken as a whole are held by such subsidiary or subsidiaries, except where such sale, lease, transfer, exclusive license or other disposition is to a wholly owned subsidiary of the Company.

"Delaware Act" means the Delaware Limited Liability Company Act, as the same may be amended from time to time.

"Depreciation" means for each Taxable Year, an amount equal to the depreciation or other cost recovery deduction allowable with respect to an asset for such Taxable Year, except that (i) with respect to any asset whose Book Value differs from its adjusted tax basis for federal income tax purposes and which difference is being eliminated by the "remedial method" defined in Treasury Regulation Section 1.704-3(d), Depreciation for such Taxable Year shall be the amount of book basis recovered for such Taxable Year under the rules prescribed by Treasury Regulation Section 1.704-3(d)(2), and (ii) with respect to any other asset whose Book Value differs from its adjusted tax basis at the beginning of such Taxable Year, Depreciation shall be the amount which bears the same ratio to such beginning Book Value as the federal income tax depreciation, amortization or other cost recovery deduction for such Taxable Year bears to such beginning adjusted tax basis, provided, however, that if the adjusted tax basis of an asset at the beginning of such Taxable Year is zero, Depreciation shall be determined with reference to such beginning Book Value using any reasonable method selected by the Tax Matters Person.

"Derivative Securities" means any equity securities which are, at the time of determination, convertible into Common Units, and are in the money.

"Designation" shall have the meaning set forth in Section 5.2.

"Estimated Tax Amount" of a Member for a Fiscal Year means the Member's Tax Amount for such Fiscal Year as estimated in good faith from time to time by the Board. In making such estimate, the Board shall take into account amounts shown on Internal Revenue Service Form 1065 filed by the Company and similar state or local forms filed by the Company for the preceding taxable year and such other adjustments as in the reasonable business judgment of the Board are necessary or appropriate to reflect the estimated operations of the Company for the Fiscal Year.

"Existing Members" means the persons who hold Membership Interests in the Company as of the date hereof pursuant to the Second A&R Agreement.

"Fair Market Value" of any asset or the Units as of any date means the purchase price which a willing buyer having all relevant knowledge would pay a willing seller for such asset or Units in an arm's-length transaction, as determined in good faith by the Board based on such factors as the Board, in the exercise of its reasonable business judgment, considers relevant.

"Fiscal Year" means the Company's Taxable Year.

"Fixed Series A Return" means an amount, for each Series A Preferred Unit, equal to the accrued and unpaid Series A Preferred Return in respect of such Series A Preferred Unit calculated from the original issue date of each such Series A Preferred Unit up to and including March 13, 2016, which amount equals $3,629,092 in the aggregate.

"Founding Investors" shall mean Joseph P. Errico, Dr. Thomas J. Errico and Kathryn Theofilos.

"GAAP" shall mean shall mean generally accepted accounting principles (applied consistently) as in effect on the applicable date or during the applicable period, as the case may be.

"GCL" means the General Corporation Law of the State of Delaware, as the same may be amended from time to time.

"GHI/CV II Series A Percentage" means, as of the applicable measurement date, the number, expressed as a percentage, equal to the sum of the percentage of outstanding Series A Preferred Units held of record by Merck GHI plus the percentage of outstanding Series A Preferred Units held of record by CV II.

"Healthcare Trigger Event" shall mean any transaction or new strategic business initiative, agreement or arrangement that Merck GHI believes could result in a potential violation of, or would be potentially impermissible under, any healthcare laws, rules or regulations applicable to Merck GHI (or any other Merck & Co. affiliated company) as determined by either Merck GHI or counsel to the Company.

"Immediate Family Member" means a child**,** stepchild, grandchild, parent, stepparent, grandparent, spouse, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, including adoptive relationships, of a natural person referred to herein, and all trusts for the benefit of any such persons.

"Investor Manager" shall have the meaning set forth in Section 3.1(c) hereto.

"Liquidation Event" shall mean any voluntary or involuntary liquidation, dissolution or winding up of the Company, including a Deemed Liquidation Event.

"Losses" means items of loss and deduction of the Company determined according to Section 6.2.

"Major Holder" means, at any time, (i) each holder of not less than 1,000,000 Preferred Units (such number adjusted for Unit splits, combinations and similar transactions occurring after the date hereof), and (ii) each Member (including its Immediate Family Members and Affiliates) who holds of record not less than 2,000,000 Units (such number adjusted for Unit splits, combinations and similar transactions occurring after the date hereof).

"Majority in Interest" means, at any time, a Member or Members which own 50% of the total Units outstanding at such time (treating all Preferred Units on an as-converted to Common Unit basis), plus one Unit.

"Majority of the Board" means, at any time, a combination of any of the then Managers constituting a majority of the votes of all of the Managers who are then elected and qualified.

"Member" means each Person who is a holder of a Membership Interest in the Company as of the date hereof and each Person who may hereafter be admitted as a Member in accordance with the terms of this Agreement. The Members shall constitute the "members" (as that term is defined in the Delaware Act) of the Company.

"Member Minimum Gain" with respect to each Member Nonrecourse Debt, means the amount of Company Minimum Gain (as determined according to Treasury Regulation Section 1.704-2(d)(1)) that would result if such Member Nonrecourse Debt were treated as a nonrecourse liability, determined in accordance with Treasury Regulation Section 1.704-2(i)(3).

"Member Nonrecourse Debt" has the meaning set forth in Treasury Regulation Section 1.704-2(b)(4), substituting the term "Company" for the term "partnership" and the term "Member" for the term "partner" as the context requires.

"Member Nonrecourse Deduction" has the meaning set forth in Treasury Regulation Section 1.704-2(i), substituting the term "Member" for the term "partner" as the context requires.

"Members Schedule" shall have mean the schedule of all Members maintained by the Company pursuant to Section 5.1 hereunder setting forth the name of each Member, the number and type of Units held by them and their respective Percentage Interest.

"Membership Interest" means the interest acquired by a Member in the Company, including such Member's right (based on the type and class and/or series of Unit or Units held by such Member), as applicable, (A) to a distributive share of Profits, Losses, and other items of income, gain, loss, deduction and credits of the Company, (B) to a distributive share of the assets of the Company, (C) to vote on, consent to or otherwise participate in any decision of the Members, and (D) to any and all other benefits to which such Member may be entitled as provided in this Agreement or the Delaware Act.

"Merck GHI" means Merck Global Health Innovation Fund, LLC.

"New Securities" means, collectively, equity securities of the Company, whether or not currently authorized, as well as rights, options, or warrants to purchase such equity securities, or securities of any type whatsoever that are, or may become, convertible or exchangeable into or exercisable for such equity securities.

"Noncompensatory Option" has the meaning set forth in Treasury Regulation Section 1.721-2(f).

"Nonrecourse Deductions" has the meaning set forth in Treasury Regulation Section 1.704-2(b) (substituting the term "Company" for the term "partnership" as the context requires).

"Original Issue Price" shall mean, with respect to the Series A Preferred Units, the Original Series A Issue Price; with respect to the Series B Preferred Units, the Original Series B Issue Price and, with respect to the Series B-1 Preferred Units, the Original Series B-1 Issue Price.

"Original Series A Issue Price" shall mean, for each Series A Preferred Unit issued at either the Initial Closing or any Required Milestone Closing under the Series A Purchase Agreement, or the CV II Series A Warrant, $0.73527 per Series A Preferred Unit (as adjusted for unit splits, reverse unit splits and similar actions occurring after the date hereof in respect of the Series A Preferred Units), and, for each Series A Preferred Unit issued at any Optional Milestone Closing under the Series A Purchase Agreement, $0.85 per Series A Preferred Unit (as adjusted for unit splits, reverse unit splits and similar actions occurring after the date hereof in respect of the Series A Units). The Original Series A Issue Price for the applicable Series A Preferred Units are as set forth on Schedule D attached hereto.

"Original Series B Issue Price" shall mean $0.70 per Series B Preferred Unit (as adjusted for unit splits, reverse unit splits and similar actions occurring after the date hereof in respect of the Series B Preferred Units).

"Original Series B-1 Issue Price" shall mean $0.85 per Series B-1 Preferred Unit (as adjusted for unit splits, reverse unit splits and similar actions occurring after the date hereof in respect of the Series B-1 Preferred Units).

"Percentage Interest" with respect to a Member means, at any time, such Member's ownership interest in the Company expressed as a percentage based upon the number of Units held by such Member as it relates to the total outstanding Units (treating all Preferred Units on an as-converted to Common Units basis). Each Member's Percentage Interest shall be reflected on the Member's Schedule, as amended from time to time in accordance herewith.

"Person" means any individual, corporation, partnership, limited liability company, trust, joint venture, governmental entity or other unincorporated entity, association or group.

"Preference Units" means, collectively, the Common Preference Units and the Series A Preference Units.

"Preferred Units" means, collectively, the Series A Preferred Units, the Series B Preferred Units and the Series B-1 Preferred Units.

"Profits" means items of income and gain of the Company determined according to Section 6.2.

"Public Offering" shall mean the sale by the Company or its successor of its equity securities to the public in a firm commitment underwriting pursuant to a registration statement filed pursuant to the Securities Act of 1933, as amended.

"Quarterly Estimated Tax Amount" of a Member for any calendar quarter of a Fiscal Year means the excess, if any of (i) the product of (A) ¼ in the case of the first calendar quarter of the Fiscal Year, ½ in the case of the second calendar quarter of the Fiscal Year, ¾ in the case of the third calendar quarter of the Fiscal Year, and 1 in the case of the fourth calendar quarter of the Fiscal Year and (B) the Member's Estimated Tax Amount for such Fiscal Year over (ii) all distributions previously made during such Fiscal Year to such Member.

"Qualified Future Financing" shall mean an equity or convertible note bridge financing by the Company (including a Series C Preferred Unit or other senior or pari passu security to the Series A Preferred Units and/or the Series B Preferred Units) that is approved by the Board and a Majority in Interest; provided that in connection with such financing: (x) the preference (including the participation right in Section 7.2(c)) payable to the holders of the Series A Preferred Units, the Series B Preferred Units and the Series B-1 Preferred Units hereunder, pursuant to either of Sections 7.2, 7.5 and 10.2, is not reduced (provided that any additional preference ahead of or pari passu with the Series B-1 Preferred Units, the Series B Preferred Units and/or the Series A Preferred Units resulting from such financing shall not be deemed a reduction for this purpose and provided further that the fact that additional Units will be outstanding will not be deemed a reduction of the participation right in Section 7.2(c)) for this purpose), (y) there is no reduction or other negative adjustment to the Series A Preferred Return, and (z) there is no waiver of any resulting adjustment to the Conversion Prices applicable to the Preferred Units or a conversion or exchange (forced or otherwise) of the Preferred Units to Common Units or any other security (other than a conversion into Common Units (or common stock) in connection with a Qualified Public Offering as herein provided), or any penalty or material adverse consequence targeting only investors who fail to participate in the Qualified Future Financing (excluding for this purpose proportionate dilution due to the failure to so participate).

"Qualified Public Offering" shall mean a Public Offering with an aggregate offering price of not less than $30,000,000 placing a pre-money valuation on the Company (based on the closing price for the Public Offering) of not less than $300,000,000.

"Required Preferred Consent" shall mean, collectively, the Required Series A Consent and the Required Series B Consent.

"Required Series A Consent" shall have the meaning set forth in Section 4.9 hereto.

"Required Series B Consent" shall have the meaning set forth in Section 4.10 hereto.

"Revised Partnership Audit Procedures" means the provisions of Subchapter C of Subtitle F, Chapter 63 of the Code, as amended by the Bipartisan Budget Act of 2015, P.L. 114-74 (together with any subsequent amendments thereto, Treasury Regulations promulgated thereunder, and published administrative interpretations thereof).

"Series A Preference Units" means the Common Units issued to each holder of Series A Preferred Units pursuant to Section 5.1(a)(ii) of the Second A&R Agreement. The Series A Preference Units issued to each such holder of Series A Preferred Units are set forth on Schedule C hereto opposite each such holder's name under the column titled "Series A Preference Units".

"Series A Preferred Return" means an annual non-compounded amount with respect to each outstanding Series A Preferred Unit equal to the product of (x) the Series A Percentage, and (y) the Series A Unreturned Capital Value for each such Unit, which shall accrue as provided herein to the extent not paid.

"Series A Preferred Return Percentage" means 4%.

"Series A Preferred Units" means the Units designated as Series A Preferred Units hereunder, which Units shall have the designations, preferences and/or special rights set forth in this Agreement applicable to such class of Units.

"Series A Purchase Agreement" means the Series A Preferred Unit Purchase Agreement dated as of March 28, 2013, as amended, among the Company and the other parties thereto.

"Series A Unreturned Capital Value" means, for each Series A Preferred Unit at any time outstanding, the amount equal to the Original Series A Issue Price for such Series A Preferred Unit, reduced by the aggregate amount of all distributions made by the Company in respect of such Series A Preferred Unit hereunder, other than Tax Advances and distributions in respect of Series A Preferred Return. As of the date hereof, the aggregate Series A Unreturned Capital Value is $54,923,430.

"Series B Bridge Financing" means the bridge note and warrant financing conducted by the Company during 2016 and 2017 pursuant to which the Company issued in the aggregate $25,586,822 in bridge notes, together with warrants and Common Units in connection therewith.

"Series B Bridge Warrants" means the warrants to purchase Series B Preferred Units issued in connection with the Series B Bridge Financing.

"Series B Common Warrants" means the warrants to purchase Common Units issued pursuant to the Series B Purchase Agreement or the A&R Series B Purchase Agreement.

"Series B Commitment Amount" means the amount of Series B Preferred Units each Member party to the Series B Commitment Letter agreed to purchase at the initial closing under the Series B Purchase Agreement.

"Series B Commitment Letter" means the letter agreement dated June 30, 2017 pursuant to which certain Members committed, among other things, to purchase a minimum amount of Series B Preferred Units at the initial closing under the Series B Purchase Agreement, subject to the terms and conditions therein set forth.

"Series B Preferred Units" means the Units designated as Series B Preferred Units hereunder, which Units shall have the designations, preferences and/or special rights set forth in this Agreement applicable to such class of Units.

"Series B-1 Preferred Units" means the Units designated as Series B-1 Preferred Units hereunder, which Units shall have the designations, preferences and/or special rights set forth in this Agreement applicable to such class of Units.

"Series B Purchase Agreement" means the Series B Preferred Unit Purchase Agreement dated as of the August 18, 2017 among the Company and the purchasers of Series B Preferred Units party thereto providing for the issuance of up to 92,857,143 Series B Preferred Units, as such agreement may be amended from time to time in accordance therewith.

"Series B-1 Purchase Agreement(s)" means one or more Series B-1 Preferred Unit Purchase Agreements, substantially in the form of the Series B Purchase Agreement except that the purchase price for the Series B-1 Preferred Units thereunder shall be $0.85 per Unit, to be entered into from time to time among the Company and the purchasers of Series B-1 Preferred Units party thereto providing for the issuance of up to 23,529,412 Series B-1 Preferred Units in the aggregate.

"Series B Unreturned Capital Value" means, for each Series B Preferred Unit at any time outstanding, the amount equal to the Original Series B Issue Price for such Series B Preferred Unit, reduced by the aggregate amount of all distributions made by the Company in respect of such Series B Preferred Unit hereunder, other than Tax Advances. As of the date hereof and immediately prior to the Series B closing effective as of the date hereof, the aggregate Series B Unreturned Capital Value is $53,661,110.

"Series B-1 Unreturned Capital Value" means, for each Series B-1 Preferred Unit at any time outstanding, the amount equal to the Original Series B-1 Issue Price for such Series B-1 Preferred Unit, reduced by the aggregate amount of all distributions made by the Company in respect of such Series B-1 Preferred Unit hereunder, other than Tax Advances. As of the date hereof, the aggregate Series B-1 Unreturned Capital Value is $0.00.

"Tax Advances" means any distributions made by the Company pursuant to Section 7.3 hereof.

"Tax Amount" of a Member for a Fiscal Year means the product of (A) the Tax Rate for such Fiscal Year and (B) the Adjusted Taxable Income of the Member for such Fiscal Year with respect to its Units.

"Tax Matters Person" has the meaning set forth in Section 9.5.

"Tax Rate" shall mean the highest individual or corporate federal, state and local income tax rate applicable to any Member of the Company for the applicable period, taking into account for federal income tax purposes, the deductibility of state and local taxes, in each case as if such Member were a resident of New York City.

"Taxable Year" means the Company's taxable year ending on or about December 31 (or part thereof in the case of the Company's first and last taxable year), or such other year as is (i) required by Section 706 of the Code or (ii) determined by the Board (if no year is so required by Section 706 of the Code).

"Transaction Bonus Plan" shall mean a bonus plan that may be established by the Company with the approvals contemplated herein, including Section 5.1(d), pursuant to which senior management of the Company employed at the time of any Liquidation Event would be entitled to additional compensation. Such plan, if established, may (i) provide that the allocation of such bonus pool will be determined by the Company's Chief Executive Officer, as approved by the Board, (ii) provide that participation in such bonus pool will be subject to the participants: (A) assisting the Company in the Liquidation Event, (B) remaining employed with the Company through the Liquidation Event, and if requested, for a specified period thereafter not to exceed 12 months, and (C) delivering, if requested, a standard employee release in favor of the Company and its stakeholders prior to or upon consummation of such Liquidation Event, and (iii) be on such other terms and conditions as the Board shall approve taking into account the effects such plan would reasonably be expected to have on any potential acquiror of the Company and the tax consequences to the Company and the participants with a view toward implementing the plan in a tax efficient manner.

"Transfer" means any direct or indirect sale, transfer, conveyance, assignment, pledge, hypothecation, gift, delivery or other disposition.

"Treasury Regulations" means the final or temporary regulations that have been issued by the U.S. Department of Treasury pursuant to its authority under the Code, and any successor regulations.

"Unit" means a unit representing a fractional part of the Membership Interests of all of the Unitholders and shall include all types and classes and/or series of Units; provided that any type or class or series of Unit shall have the designations, preferences and/or special rights set forth in this Agreement and the Membership Interests represented by such type or class or series of Unit shall be determined in accordance with such designations, preferences and/or special rights. As of the date hereof, the authorized Units shall consist of the Common Units, the Series A Preferred Units, the Series B Preferred Units and the Series B-1 Preferred Units. Unless otherwise provided for hereunder, the Common Units and the Preferred Units shall be identical in all respects.

"Warrants" shall mean the Series B Bridge Warrants, the Series B Common Warrants and all other warrants issued from time to time by the Company, with Board approval, and designated as "Warrant" for purposes of this Agreement.

1.2 Other Definitional Provisions. Capitalized terms used in this Agreement which are not defined in this Article I have the meanings contained elsewhere in this Agreement. Defined terms used in this Agreement in the singular shall import the plural and vice versa.

ARTICLE II
Organization of the Company

2.1 Formation.

(a) This Agreement shall constitute the "limited liability company agreement" (as that term is used in the Delaware Act) of the Company. The rights, powers, duties, obligations and liabilities of the Members shall be determined pursuant to the Delaware Act and this Agreement. To the extent that the rights, powers, duties, obligations and liabilities of any Member are different by reason of any provision of this Agreement than they would be in the absence of such provision, this Agreement shall, to the extent permitted by the Delaware Act, control.

(b) Any officer of the Company as an "authorized person" within the meaning of the Delaware Act, is hereby authorized, at any time that the applicable Member(s) have approved an amendment to the Certificate in accordance with the terms hereof, to promptly execute, deliver and file such amendment in accordance with the Delaware Act.

(c) The Company shall, to the extent permissible, elect to be treated as a partnership for federal, state and local income tax purposes, and each Member and the Company shall file all tax returns and shall otherwise take all tax and financial reporting positions in a manner consistent with such treatment and no Member shall take any action inconsistent with such treatment. The Company shall not be deemed a partnership or joint venture for any other purpose.

2.2 Name. The name of the Company is "ElectroCore, LLC" or such other name or names as the Board may from time to time designate; provided, that the name shall always contain the words "Limited Liability Company", "LLC" or "L.L.C."

2.3 Registered Office; Agent. The Company shall maintain a registered office and agent in the State of Delaware as determined by the Board.

2.4 Term. The term of existence of the Company shall be as stated in the Certificate, unless the Company is dissolved in accordance with the provisions of this Agreement.

2.5 Purposes and Powers. The purposes and character of the business of the Company shall be to transact any or all lawful business for which limited liability companies may be organized under the Delaware Act. The Company shall have any and all powers which are necessary or desirable to carry out the purposes and business of the Company, including the ability to incur and guaranty indebtedness, to the extent the same may be legally exercised by limited liability companies under the Delaware Act. Notwithstanding anything herein to the contrary, nothing set forth herein shall be construed as authorizing the Company to possess any purpose or power, or to do any act or thing, forbidden by law to a limited liability company organized under the laws of the state of its organization.

ARTICLE III
Management of the Company

3.1 Board of Managers.

(a) Establishment. A committee (the "Board" or the "Board of Managers") comprised of natural persons (the "Managers") shall have the authority and duties to manage the business and affairs of the Company as set forth herein. Except as otherwise provided herein, any decisions to be made by the Board shall require the approval of a Majority of the Board. Except as provided in the immediately preceding sentence, no Manager acting alone, or with any other Manager or Managers, shall have the power to act for or on behalf of, or to bind the Company. Each Manager shall be a "manager" (as that term is defined in the Delaware Act) of the Company, but, notwithstanding the foregoing, no Manager shall have any rights or powers beyond the rights and powers granted to such Manager in this Agreement. Managers need not be residents of the State of Delaware. The Board has established the following committees as of the date hereof: Finance Committee, Compensation Committee and Audit Committee.

(b) Powers. The business and affairs of the Company shall be managed by or under the direction of the Board, other than to the extent delegated to an officer of the Company by the Board. Without limiting the foregoing, Board approval will be required for the Company to (i) commence any pivotal clinical trial by the Company not provided for in the then current operating budget approved by the Board; provided, that, for purposes of this clause (i), such approval must include at least two Investor Managers, or (ii) hire or terminate the employment of the Chief Executive Officer of the Company, and any of his or her direct reports or any senior officer of the Company; provided, that, for purposes of this clause (ii), such approval must include all three Investor Managers.

(c) Number of Managers; Term of Office. The authorized number of Managers constituting the entire Board from and after the date hereof shall be nine (9) consisting of:

(i) so long as the Founding Investors (together with their Immediate Family Members and Affiliates) hold in the aggregate at least 7,500,000 Units (such number adjusted for Unit splits, combinations and similar transactions occurring after the date hereof), one person designated by each Founding Investor (or, upon the death of any Founding Investor, the majority vote of all Units held by such deceased Founding Investor's Immediate Family Members and Affiliates) (the "Founder Managers"). As of the date hereof, the Founder Managers shall be Joseph P. Errico, Dr. Thomas J. Errico and Dr. Peter Staats;

(ii) so long as Merck GHI (together with its Affiliates) holds at least 2,500,000 Units (such number adjusted for Unit splits, combinations and similar transactions occurring after the date hereof), (A) one Manager shall be designated by Merck GHI (the "Merck Manager"), and (B) Merck GHI shall have the right to designate one member to each committee of the Board. As of the date hereof, the Merck Manager shall be David Rubin;

(iii) so long as CV II (together with its Affiliates) holds at least 2,500,000 Units (such number adjusted for Unit splits, combinations and similar transactions occurring after the date hereof), (A) one Manager shall be designated by CV II (the "CV II Manager"), and (B) CV II shall have the right to designate one member to each committee of the Board. As of the date hereof, the CV II Manager shall be Nicholas Colucci;

(iv) so long as AIH (together with its Affiliates) holds at least 2,500,000 Units (such number adjusted for Unit splits, combinations and similar transactions occurring after the date hereof), (A) one Manager shall be designated by AIH (the "AIH Manager"), and (B) AIH shall have the right to designate one member to each committee of the Board. As of the date hereof, the AIH Manager shall be Jeffrey Vinik. The Managers designated pursuant to subsections (ii), (iii) and (iv) shall be referred to herein as the "Investor Managers"); and

(v) the remaining Managers shall be persons not Affiliates of any other Member (which shall not be deemed to include any portfolio company of Merck GHI or CV II) and shall be designated by the holders of a majority of the outstanding Units (and be reasonably acceptable to each of the Merck Manager, the CV II Manager and the AIH Manager), which initial Managers designated pursuant to this clause (v) shall be Frank Amato, James L.L. Tullis and Trevor Moody. Notwithstanding anything herein to the contrary, prior to January 1, 2018, neither Mr. Moody nor Mr. Tullis (each a "Protected Manager") shall be removed from the Board by the Members without the prior approval of Merck GHI and CV II (so long as such party (including its Affiliates) holds at least 10,000,000 Preferred Units (such number adjusted for unit splits, combinations and similar transactions occurring after the date hereof in respect of the Preferred Units); provided that, if at any time after January 1, 2018, a majority of the Founder Managers propose a new candidate be elected to the Board for purposes of this clause (v), then the number of Protected Managers shall be reduced to one (1) and Merck GHI, promptly following receipt of written notice of any such proposal, shall promptly designate in writing to the Company which of the two Protected Managers shall remain a Protected Manager (with the other Protected Manager no longer being deemed a Protected Manager and who may thereafter be removed without the approval of CV II or Merck GHI pursuant to the foregoing proviso); and provided, further that upon a Public Offering the number of Protected Managers shall be reduced to zero (0) (with the remaining Protected Manager no longer being deemed a Protected Manager and who may thereafter be removed without the approval of CV II or Merck GHI pursuant to the foregoing proviso).

(d) Removal. Subject to the final sentence of Section 3.1(c)(v), any Manager of the Company may be removed from the Board, with or without cause, in the manner allowed by law and this Agreement, but with respect to a Manager designated by a specific Member or Members or class or classes of Members pursuant to Section 3.1(c)(i) through 3.1(c)(v), a removal without cause shall only occur upon the vote or written consent of the Member entitled to designate such Manager (or if designated by two or more Members, by any of such Members; provided such Manager's replacement shall be designated by the Members entitled to designate such Manager pursuant to the applicable Section 3.1(c)(i) through 3.1(c)(v)).

(e) Resignation; Vacancies. A Manager may resign at any time by giving written notice to that effect to the Board. Any such resignation shall take effect at the time of the receipt of that notice or any later effective time specified in that notice; and, unless otherwise specified in that notice, the acceptance of the resignation shall not be necessary to make it effective. Any vacancy, whether due to death, resignation or removal, of any Manager shall be filled only by the vote or consent of the persons entitled to designate such former Manager pursuant to Section 3.1(c)(i) through (v) above.

(f) Meetings of the Board. The Board shall meet at such time and at such place (either within or outside of the State of Delaware) as the Board may designate. Special meetings of the Board shall be held on the call of the Chairman (as herein defined) or any one Manager upon at least two business days (if the meeting is to be held in person, and not counting the day notice of such meeting is delivered) or one business day (if the meeting is to be held by telephone communications or video conference, and not counting the day notice of such meeting is delivered) written notice to the Managers, or upon such shorter notice as may be approved by all of the Managers. Any Manager may waive such notice as to himself. A record shall be maintained by the Secretary of the Company of each meeting of the Board.

(i) Conduct of Meetings. Any meeting of the Board may be held in person, telephonically or by video conference.

(ii) Quorum. A Majority of the Board (including at least two Investor Managers) at a properly noticed meeting shall constitute a quorum of the Board for purposes of conducting business; provided that in the event at least two Investor Managers fail to attend, a meeting shall be postponed for at least two business days, with notice of the meeting resulting therefrom given in accordance with this clause (f), and in the meeting resulting therefrom, a quorum shall be a Majority of the Board. At all times when the Board is conducting business at a meeting of the Board, a quorum of the Board must be present at such meeting. If a quorum shall not be present at any meeting of the Board, then the Managers present at the meeting may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum shall be present. A Manager may vote or be present at a meeting either in person, telephonically or by proxy.

(iii) Attendance and Waiver of Notice. Attendance of a Manager at any meeting shall constitute a waiver of notice of such meeting, except where a Manager attends a meeting for the express purpose of objecting to the transaction of any business on the ground that the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the Board need be specified in the notice or waiver of notice of such meeting.

(iv) Actions Without a Meeting. Notwithstanding any provision contained in this Agreement, any action of the Board may be taken by written consent without a meeting. Any such action taken by the Board without a meeting shall be effective only if the consent or consents are in writing, set forth the action so taken, and are delivered to all Managers prior to the effective date of such action and thereafter signed by all of the members of the Board required to carry such action as if such action were taken at a duly called meeting with the entire Board present; provided such consent must include the consent of all three Investor Managers to be effective. An email communication from a Manager confirming his consent shall be sufficient if promptly followed by delivery to the Company of a signed consent.

(g) Compensation of the Managers. Managers, as such, shall not receive any stated salary for their services as a Manager, but shall receive such compensation for their services as may be from time to time agreed upon by a majority of the disinterested members of the Board, including at least two Investor Managers. In addition, Managers (and observers designated pursuant to Section 3.1(i) below) shall be entitled to reimbursement for the reasonable out-of-pocket expenses (incurred in accordance with any written Company policies which Managers have received), if any, incurred in attending all Board and any committee meetings, as well as other expenses approved by the Board in connection with their work on behalf of the Company; provided, that nothing contained in this Agreement shall be construed to preclude any Manager from serving the Company or any of its subsidiaries in any other capacity and receiving compensation for such service.

(h) Chairman of the Board. A Majority of the Board may elect any one of the Managers to be the Chairman of the Board (the "Chairman"). As of the date hereof, the Chairman is Joseph P. Errico. At any time, the Chairman, if any, can be removed from his or her position as Chairman by a Majority of the Board. The Chairman, in his or her capacity as the Chairman of the Board, shall not have any of the rights or powers of an officer of the Company. The Chairman shall preside at all meetings of the Board and at all meetings of the Members at which he or she shall be present.

(i) Board Observers. Merck GHI, so long as it holds of record any Preferred Units, shall be entitled to have one representative attend all meetings of the Board in a nonvoting observer capacity and, in this respect, shall have the right to receive copies of all notices, minutes, consents, and other materials that the Company provides to its Managers; provided, however, that such representative shall agree to hold in confidence all information so provided; and provided further, that the Company reserves the right to withhold any information and to exclude such representative from any meeting or portion thereof if access to such information or attendance at such meeting could adversely affect the attorney-client privilege between the Company and its counsel or result in disclosure of trade secrets or a conflict of interest. CV II, so long as it holds of record any Preferred Units, shall be entitled to have one representative attend all meetings of the Board in a nonvoting observer capacity and, in this respect, shall have the right to receive copies of all notices, minutes, consents, and other materials that the Company provides to its Managers; provided, however, that such representative shall agree to hold in confidence all information so provided; and provided

further, that the Company reserves the right to withhold any information and to exclude such representative from any meeting or portion thereof if access to such information or attendance at such meeting could adversely affect the attorney-client privilege between the Company and its counsel or result in disclosure of trade secrets or a conflict of interest. AIH, so long as it holds of record any Preferred Units, shall be entitled to have one representative attend all meetings of the Board in a nonvoting observer capacity and, in this respect, shall have the right to receive copies of all notices, minutes, consents, and other materials that the Company provides to its Managers; provided, however, that such representative shall agree to hold in confidence all information so provided; and provided further, that the Company reserves the right to withhold any information and to exclude such representative from any meeting or portion thereof if access to such information or attendance at such meeting could adversely affect the attorney-client privilege between the Company and its counsel or result in disclosure of trade secrets or a conflict of interest. This Section shall expire upon a Public Offering by the Company.

3.2 Officers.

(a) Appointment of Officers. The Board may appoint individuals as officers ("officers") of the Company, which may include a Chief Executive Officer, President, a Chief Financial Officer, a Secretary and such other officers (such as a Chief Operating Officer, a Treasurer or any number of Vice Presidents) as the Board deems advisable. No officer need be a Member. An individual may be appointed to more than one office. No officer of the Company shall have any rights or powers beyond the rights and powers granted to such officer in this Agreement. Certain officers of the Company as of the date hereof are listed on the attached Schedule A.

(b) Duties of Officers Generally. Under the direction of and, at all times, subject to the authority of the Board, the officers shall have the discretion to manage the day-to-day business, operations and affairs of the Company in the ordinary course of its business, to make all decisions, except those expressly reserved or requiring the approval of the Board hereunder, affecting the day-to-day business, operations and affairs of the Company in the ordinary course of its business and to take all such actions as they deem necessary or appropriate to accomplish the foregoing, in each case, unless the Board shall have previously restricted (specifically or generally) such powers. In addition, the officers shall have such other powers and duties as may be prescribed by the Board or this Agreement. Subject to the supervision and direction of the Board, the Chief Executive Officer shall have the power and authority to delegate to any agents or employees of the Company rights and powers of officers of the Company to manage and control the day-to-day business, operations and affairs of the Company in the ordinary course of its business, as the Chief Executive Officer may deem appropriate from time to time, in each case, unless the Board shall have previously restricted (specifically or generally) such powers. Notwithstanding the foregoing, without limiting the rights and powers of the Board or any other approval right herein granted to the holders of Preferred Units, no officer shall enter into or consummate any of the following transactions without the prior approval of the Board (or a duly authorized committee thereof): (i) any material transaction outside of the ordinary course of the Company's business consistent with past practice, unless such transaction is provided for within the then current operating budget approved by the Board or obligates the Company for an amount not in excess of $100,000; (ii) the issuance of any Units or other security of the Company, including any security convertible into any security, other than the grant by the Board

or the Compensation Committee (or its designee) of Units to employees in connection with their services to the Company under any plan approved by the Board; (iii) any sale of any material portion of the Company's assets (whether by asset purchase, stock purchase, merger or otherwise), except in the ordinary course of the Company's business; (iv) declare or pay any dividend or make any other distributions in respect of any Units (other than required tax distributions hereunder, or other distributions required hereunder in respect of the Preferred Units); (v) redeem or purchase or otherwise acquire any Units, other than repurchases from officers, Managers, consultants or other persons who performed services for the Company in connection with the cessation of such employment or service for an amount not in excess of $50,000 individually, or $250,000 in the aggregate; (vi) incur any indebtedness for borrowed money in excess of $100,000 individually or $250,000 in the aggregate (other than purchase money indebtedness); (vii) approve any material deviation from the then current operating budget as approved by the Board; (viii) any sale of assets in excess of $100,000 in the aggregate outside of the ordinary course of the business; or (ix) any other acts requiring the consent or approval of the Board under this Agreement.

(c) Authority of Officers. Subject to Section 3.2(b), any officer of the Company shall have the right, power and authority to transact business in the name of the Company or to act for or on behalf of or to bind the Company. With respect to all matters within the ordinary course of business of the Company, third parties dealing with the Company may rely conclusively upon any certificate of any officer to the effect that such officer is acting on behalf of the Company.

(d) Removal, Resignation and Filling of Vacancy of Officers. The Board may remove any officer, for any reason or for no reason, at any time, subject to the terms of any then-existing employment agreement. Any officer may resign at any time by giving written notice to the Board, and such resignation shall take effect at the date of the receipt of that notice or any later time specified in that notice; provided, that unless otherwise specified in that notice, the acceptance of the resignation shall not be necessary to make it effective. Any such resignation shall be without prejudice to the rights, if any, of the Company or such officer under this Agreement or any employment or unit repurchase agreement then in effect. A vacancy in any office because of death, resignation, removal or otherwise shall be filled in the manner prescribed in this Agreement for regular appointments to that office.

(e) Compensation of Officers. The officers shall be entitled to receive compensation from the Company as determined by the Board.

(f) Chief Executive Officer; President. Under the direction of and, at all times, subject to the authority of the Board and the limitations imposed by Section 3.2(b), the Chief Executive Officer shall have general supervision over the day-to-day business, operations and affairs of the Company and shall perform such duties and exercise such powers as are incident to the office of president under the GCL. The Chief Executive Officer shall be the highest ranking corporate officer of the Company, shall report directly to the Board and shall have such other powers and perform such other duties as may from time to time be prescribed by the Board. The President shall perform such duties as may be assigned to him from time to time by the Board or the Chief Executive Officer. In the absence or disability of the Chief Executive Officer, the President may, unless otherwise determined by the Board, exercise the powers and perform the duties pertaining to the office of Chief Executive Officer.

(g) Chief Financial Officer. The Chief Financial Officer shall keep and maintain, or cause to be kept and maintained, adequate and correct books and records of accounts of the properties and business transactions of the Company, including accounts of its assets, liabilities, receipts, disbursements, gains, losses, capital and Units, and, in general, shall perform all the duties incident to the office of the chief financial officer of a corporation organized under the GCL. The Chief Financial Officer shall have the custody of the funds and securities of the Company, and shall keep full and accurate accounts of receipts and disbursements in books belonging to the Company. The Chief Financial Officer shall have such other powers and perform such other duties as may from time to time be prescribed by the Board and/or the Chief Executive Officer, subject to the limitations imposed by Section 3.2(b).

(h) Secretary. The Secretary shall (i) keep the minutes and resolutions of any meetings of the Members and of the Board in one or more books provided for that purpose; (ii) see that all notices to be given by the Company are duly given in accordance with the provisions of this Agreement and as required by law; (iii) be custodian of the company records; (iv) keep a register of the addresses of each Member which shall be furnished to the Secretary by such Member; (v) have general charge of the Members Schedule; and (vi) in general perform all duties incident to the office of the secretary of a corporation organized under the GCL. The Secretary shall have such other powers and perform such other duties as may from time to time be prescribed by the Board and/or the Chief Executive Officer, subject to the limitations imposed by Section 3.2(b).

(i) Other Officers. All other officers of the Company shall have such powers and perform such duties as may from time to time be prescribed by the Board and/or the Chief Executive Officer, subject to the limitations imposed by Section 3.2(b).

3.3 Fiduciary Duties. The Board, in the performance of its duties as such, shall owe to the Members duties of loyalty and due care of the type owed by the directors of a corporation to the stockholders of such corporation under the laws of the State of Delaware and shall discharge such duties in good faith, with the care an ordinarily prudent person in a like position would exercise under similar circumstances, and in a manner the Board reasonably believes to be in the best interests of the Company. Notwithstanding anything contained herein to the contrary, Investor Managers (to the extent not designated by one or more Founder Investors or their respective Affiliates and related persons) shall not have any duty or obligation to bring any “corporate opportunity” to the Company or any of its subsidiaries. The officers, in the performance of their duties as such, shall owe to the Members duties of loyalty and due care of the type owed by the officers of a corporation to the stockholders of such corporation under the laws of the State of Delaware.

3.4 Performance of Duties; Liability of Board and Officers. In performing his, her or its duties, each Manager and the officers shall be entitled to rely in good faith on the provisions of this Agreement and on information, opinions, reports, or statements (including financial statements and information, opinions, reports or statements as to the value or amount of the assets, liabilities, Profits or Losses of the Company or any facts pertinent to the existence and

amount of assets from which distributions to Members might properly be paid), of the following other Persons or groups: (A) one or more officers or employees of the Company; (B) any attorney, independent accountant, or other Person employed or engaged by the Company; or (C) any other Person who has been selected with reasonable care by or on behalf of the Company, in each case as to matters which such relying Person reasonably believes to be within such other Person's professional or expert competence. The preceding sentence shall in no way limit any Person's right to rely on information to the extent provided in Section 18-406 of the Delaware Act. No person who is a Manager or an officer of the Company, or any combination of the foregoing, shall be personally liable under any judgment of a court, or in any other manner, for any debt, obligation, or liability of the Company, whether that liability or obligation arises in contract, tort, or otherwise, solely by reason of being a Manager or an officer of the Company or any combination of the foregoing, except to the extent of their gross negligence or willful misconduct.

3.5 Indemnification. Notwithstanding Section 3.3, no Manager nor any officer shall be liable, responsible or accountable for damages or otherwise to the Company, or to the Members, and, to the fullest extent allowed by law, the Managers and each officer shall be indemnified and held harmless by the Company, including advancement of reasonable attorneys' fees and other expenses from and against all claims, liabilities, and expenses arising out of any management of Company affairs; provided that (A) such person's course of conduct was pursued in good faith and believed by him or it to be in the best interests of the Company and was reasonably believed by him or it to be within the scope of authority conferred on such person pursuant to this Agreement and (B) such course of conduct did not constitute gross negligence or willful misconduct on the part of such Manager or officer and otherwise was in accordance with the terms of this Agreement. The rights of indemnification provided in this Section are intended to provide indemnification of the Managers and the officers to the fullest extent permitted by the GCL regarding a corporation's indemnification of its directors and officers and will be in addition to any rights to which the Managers or officers may otherwise be entitled by contract or as a matter of law and shall extend to his heirs, personal representatives and assigns. The absence of any express provision for indemnification herein shall not limit any right of indemnification existing independently of this Section. Each Manager's and each officer's right to indemnification pursuant to this Section may be conditioned upon the delivery by such person of a written undertaking to repay such amount if such person is determined pursuant to this Section or adjudicated to be ineligible for indemnification, which undertaking shall be an unlimited general obligation.

3.6 Finance Committee.

(a) Establishment. There is hereby established a six person committee of the Board (the "Finance Committee") comprised of the three Founder Managers and the three Investor Managers having the authority and duties to manage the business and affairs of the Company as set forth herein. Except as otherwise provided herein, any decisions to be made by the Finance Committee shall require the affirmative vote or written consent of a majority of the number of members (including at least two of the Investor Managers) constituting the entire Finance Committee. Except as provided in the immediately preceding sentence, no member of the Finance Committee acting alone, or with any other member of the Finance Committee, shall have the power to act for or on behalf of, or to bind, either the Company or the Finance Committee.

(b) Approval Requirement. Any of the following items shall require the prior approval of the Finance Committee (including at least two of the Investor Managers) in accordance with subsection (a) of this Section:

(i) the adoption of the Company's annual budget and operating plan, and material changes thereto;

(ii) the incurrence by the Company of aggregate indebtedness for borrowed money outstanding at any time in an amount in excess of $500,000 but not greater than $1,500,000;

(iii) the incurrence by the Company of any expenditures which are not set forth in the then approved annual budget to the extent in excess of $100,000 individually or $250,000 in the aggregate;

(iv) the entering into any agreement or other transaction by the Company to acquire another company or the assets of another company for consideration in excess of $100,000 but less than $500,000;

(v) the entering into any agreement or other transaction by the Company outside of the ordinary course of its business with respect to any sale of any of its assets for consideration in excess of $100,000 unless the holders of the outstanding Preferred Units have received or shall receive in connection with such transaction (in the aggregate taking into account all distributions, other than tax distributions, received from the Company from the original issue date of such Units) an amount per outstanding Preferred Unit equal to or in excess of four times (4X) the Original Issue Price applicable to each such outstanding Preferred Unit;

(vi) any increase to the number of Units or options or profits interest available for issuance pursuant to any employee plan, other than as previously approved by the Board;

(vii) approving any change of the Company's independent public accountants;

(viii) entering into any joint ventures, partnerships or establishing non-wholly owned subsidiaries; or

(ix) approving any expansions by the Company into any business unrelated to neurostimulation.

ARTICLE IV
Members; Voting Rights

4.1 Meetings of Members.

(a) Generally. Meetings of the Members may be called by (i) the Board or (ii) by a Member or Members holding 10% or more of the then outstanding Units. All meetings of the Members shall be held telephonically or at the principal office of the Company or at such other place within or without the state of the Company's organization as may be determined by the Board. A record shall be maintained by the Secretary of the Company of each meeting of the Members.

(b) Notice of Meetings of Members. Written or printed notice stating the place, day and hour of the meeting and, in the case of a special meeting of the Members, describing the purposes for which the meeting is called shall be delivered not fewer than five days, but not more than sixty days, before the date of the meeting, either personally or by any written method by which it is reasonable to expect that the Members would receive such notice not later than three business days prior to the date of the meeting, to each holder of Units (with a copy to the Secretary of the Company), by or at the direction of the Member(s) calling the meeting or the Board, as the case may be.

(c) Quorum. Except as otherwise provided herein or by applicable law, at any time, Units representing not less than a Majority in Interest (including a majority of each class of Preferred Units), represented in person or by proxy, shall constitute a quorum of Members for purposes of conducting business; provided that in the event that holders of a majority of any class of Preferred Units fail to attend, a meeting shall be postponed for at least two business days, with notice of the meeting resulting therefrom given in accordance with clause (b) above, and in the meeting resulting therefrom, a quorum shall be Units representing not less than a Majority in Interest. Once a quorum is present at the meeting of the Members, the subsequent withdrawal from the meeting of any Member prior to adjournment or the refusal of any Member to vote shall not affect the presence of a quorum at the meeting. If, however, such quorum shall not be present at any meeting of the Members, the Members entitled to vote at such meeting shall have the power to adjourn the meeting from time to time, without notice other than announcement at the meeting, until Members which own Units representing not less than a Majority in Interest shall be present or represented. Except as otherwise required by applicable law or as required herein, resolutions of the Members at any meeting of Members shall be adopted by the affirmative vote of Members holding not less than a Majority in Interest.

(d) Actions Without a Meeting. Unless otherwise prohibited by law, any action to be taken at a meeting of the Members may be taken without a meeting if a consent or consents in writing, setting forth the action so taken, shall be signed by a Member or Members holding not less than a Majority in Interest, or such higher percentage of Units as is expressly required hereunder to take such action. A record shall be maintained by the Secretary of the Company of each such action taken by written consent of a Member or Members.

4.2 Voting Rights. Except as specifically provided herein or otherwise required by applicable law, for all purposes hereunder, including for purposes of Article III hereof, (i) each Member shall be entitled to one vote for each Unit held by such Member, and (ii) the Units of all classes and series shall vote together as a single class on all such matters (on an as converted to Common Unit basis). A Member which owns Units may vote or be present at a meeting either in person or by proxy. When used herein, references to the vote of the Common Units shall, unless the applicable provision expressly provides otherwise, mean the vote of the then outstanding Common Units and the Preferred Units (on an as converted basis).

4.3 Registered Members. The Company shall be entitled to treat the owner of record of any Units as the owner in fact of such Unit for all purposes, and accordingly shall not be bound to recognize any equitable or other claim to or interest in such Unit on the part of any other person, whether or not it shall have express or other notice of such claim or interest, except as expressly provided by this Agreement or applicable law.

4.4 Limitation of Liability. Unless otherwise agreed to in a separate writing, no Member will be obligated personally for any debt, obligation or liability of the Company or of any of its subsidiaries or other Members by reason of being a Member, whether arising in contract, tort or otherwise. Except as otherwise provided under applicable law or expressly in this Agreement, no Member, in his or its capacity as such, will have any fiduciary or other duty to another Member with respect to the business and affairs of the Company or of any of its subsidiaries. No Member will have any responsibility to restore any negative balance in his or her Capital Account or to contribute to or in respect of the liabilities or obligations of the Company or of any of its subsidiaries or return distributions made by the Company.

4.5 Withdrawal; Resignation. A Member shall not cease to be a Member as a result of the Bankruptcy of such Member or as a result of any other events specified in § 18-304 of the Delaware Act. So long as a Member continues to own or hold any Units, such Member shall not have the ability to resign as a Member prior to the dissolution and winding up of the Company and any such resignation or attempted resignation by a Member prior to the dissolution or winding up of the Company shall be null and void. As soon as any Person who is a Member ceases to own or hold any Units, such Person shall no longer be a Member.

4.6 Death of a Member. The death of any Member shall not cause the dissolution of the Company. In such event the Company and its business shall be continued by the remaining Member or Members and the Units owned by the deceased Member shall automatically be transferred to such Member's heirs (provided that, within a reasonable time after such transfer, the applicable heirs shall sign a joinder to this Agreement acceptable to the Board).

4.7 Authority. No Member, in its capacity as a Member, shall have the power to act for or on behalf of, or to bind the Company.

4.8 Outside Activities. Subject to the terms of any written agreement by any Member to the contrary (including the non-competition agreements with employees of the Company or any of its subsidiaries), a Member may have business interests and engage in business activities in addition to those relating to the Company, including business interests and activities which compete with the Company, and no Member (unless such Member is an

employee of the Company or one of its subsidiaries) shall have any duty or obligation to bring any "corporate opportunity" to the Company. Subject to the terms of any written agreement by any Member to the contrary, neither the Company nor any other Member shall have any rights by virtue of this Agreement in any business interests or activities of any Member.

4.9 Series A Preferred Protective Provisions. The Company shall not take any of the following actions without the prior written consent of holders of outstanding Series A Preferred Units holding of record a number of Series A Preferred Units that represent not less than the greater of (x) 66% of the total number of outstanding Series A Preferred Units, and (y) the GHI/CV II Series A Percentage; provided further that such consent shall also require the prior approval of each of Merck GHI and CV II (provided that if any such party no longer holds of record at least 10,000,000 Series A Preferred Units (such number subject to adjustment for Unit splits and similar events after the date hereof in respect of the Series A Preferred Units) the consent of such party shall no longer be required under the foregoing proviso, but without limiting clauses (x) and (y)) (the foregoing consent being referred to herein as the "Required Series A Consent"):

(i) amend the Company's organization and governance documents (including this Agreement) so as to adversely alter the rights, preferences, privileges of the Series A Preferred Units; provided that, notwithstanding anything herein to the contrary in this Section 4.9, the Required Series A Consent for purposes of this clause (i) as it relates to a Qualified Future Financing shall only require the consent of the holders of a majority of the total number of outstanding Series A Preferred Units (and, for the sake of clarity, neither clauses (x) and (y) above nor any proviso requiring the prior approval of any of Merck GHI or CV II shall apply);

(ii) create, or authorize the creation of, or issue or obligate itself to issue Units or any Membership Interest of any additional class or series unless the same ranks junior to the Series A Preferred Units with respect to the distribution of assets on the liquidation, dissolution or winding up of the Company, the payment of distributions (other than tax distributions) and rights of redemption, or increase the authorized number of Series A Preferred Units or increase the authorized number of Units of any additional class or series of Membership Interest unless the same ranks junior to the Series A Preferred Units with respect to the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of distributions (other than tax distributions) and rights of redemption; provided that, notwithstanding anything herein to the contrary in this Section 4.9, the Required Series A Consent for purposes of this clause (ii) as it relates to a Qualified Future Financing shall only require the consent of the holders of a majority of the total number of outstanding Series A Preferred Units (and, for the sake of clarity, neither clauses (x) and (y) above nor the proviso requiring the prior approval of each of Merck GHI and CV II shall apply);

(iii) pay or declare any distribution on any securities of the Company, other than (x) required tax distributions or (y) distributions in connection with a Liquidation Event approved in accordance with this Agreement and made in conformity with Article VII;

(iv) the incurrence by the Company of aggregate indebtedness for borrowed money outstanding at any time in an amount in excess of $1,500,000;

(v) redeem, purchase or otherwise acquire any securities of the Company, other than repurchases from officers, Managers, consultants or other persons who performed services for the Company in connection with the cessation of such employment or service for an amount not in excess of $250,000 individually;

(vi) change the number of Managers constituting the entire Board;

(vii) enter into any transaction with any officer, Manager or Member of the Company who holds 5% or more of the total outstanding Units, or any Affiliate or Immediate Family Member of any of the foregoing, except pursuant to the exercise of preemptive rights pursuant to Section 5.5 or in connection with a Qualified Future Financing (provided any such person's participation in such Qualified Future Financing is on terms approved by the Board and identical to the terms of the other participants, and any participation by any such Affiliate is disclosed to the Board);

(viii) enter into any transaction with any Affiliate of the Company, except pursuant to the exercise of preemptive rights pursuant to Section 5.5 or in connection with a Qualified Future Financing (provided any such person's participation in such Qualified Future Financing is on terms approved by the Board and identical to the terms of the other participants, and any participation by any such Affiliate is disclosed to the Board);

(ix) the incurrence by the Company of any expenditures in any calendar year which are not set forth in the then approved annual budget to the extent in excess of $250,000 individually or $500,000 in the aggregate;

(x) effect a reclassification, reorganization or recapitalization of the outstanding membership interest of the Company; provided this clause (x) shall not apply to a Corporate Conversion in anticipation of (and conditioned upon) a Qualified Public Offering,

(xi) the entering into any agreement or other transaction by the Company to acquire another company or the assets of another company for consideration in excess of $500,000;

(xii) approve any Liquidation Event unless the holders of the outstanding Series A Preferred Units have received or shall receive in connection with such transaction (in the aggregate taking into account all distributions, other than tax distributions, received from the Company from the original issue date of such Units) an amount per outstanding Series A Preferred Unit equal to or in excess of three times (3X) the Original Series A Issue Price applicable to each such outstanding Series A Preferred Unit; or

(xiii) except as provided in Section 5.1(d) relating to the implementation of the Transaction Bonus Plan, approve any increase by more than 1% of the total outstanding Units to the number of Units or options or profits interest available for issuance pursuant to any employee plan.

4.10 Series B Preferred Protective Provisions. The Company shall not take any of the following actions without the prior written consent of holders of outstanding Series B Preferred Units and Series B-1 Preferred Units holding of record a number of Series B Preferred Units and Series B-1 Preferred Units that represent not less than the greater of (x) 66% of the total number of outstanding Series B Preferred Units and Series B-1 Preferred Units, voting together as a single class, and (y) the AIH/CV II Series B Percentage; provided further that (except for the exceptions noted in Sections 4.10(i) and (ii)) such consent shall also require the prior approval of each of AIH, CV II and Merck GHI (provided that if any such party, together with its Affiliates, no longer holds of record at least 7,000,000 Series B Preferred Units (such number subject to adjustment for Unit splits and similar events after the date hereof in respect of the Series B Preferred Units) the consent of such party shall no longer be required under the foregoing proviso) (the foregoing consent being referred to herein as the "Required Series B Consent"):

(i) amend the Company's organization and governance documents (including this Agreement) so as to adversely alter the rights, preferences, privileges of the Series B Preferred Units or the Series B-1 Preferred Units; provided that, notwithstanding anything herein to the contrary in this Section 4.10, the Required Series B Consent for purposes of this clause (i) as it relates to a Qualified Future Financing shall only require the consent of the holders of a majority of the total number of outstanding Series B Preferred Units and Series B-1 Preferred Units, voting together as a single class (and, for the sake of clarity, neither clauses (x) and (y) above nor the proviso requiring the prior approval of each of AIH, CV II and Merck GHI shall apply);

(ii) create, or authorize the creation of, or issue or obligate itself to issue Units or any Membership Interest of any additional class or series unless the same ranks junior to the Series B Preferred Units and the Series B-1 Preferred Units with respect to the distribution of assets on the liquidation, dissolution or winding up of the Company, the payment of distributions (other than tax distributions) and rights of redemption, or increase the authorized number of Series B Preferred Units or Series B-1 Preferred Units or increase the authorized number of Units of any additional class or series of Membership Interest unless the same ranks junior to the Series B Preferred Units and the Series B-1 Preferred Units with respect to the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of distributions (other than tax distributions) and rights of redemption; provided that, notwithstanding anything herein to the contrary in this Section 4.10, the Required Series B Consent for purposes of this clause (ii) as it relates to a Qualified Future Financing shall only require the consent of the holders of a majority of the total number of outstanding Series B Preferred Units and Series B-1 Preferred Units, voting together as a single class (and, for the sake of clarity, neither clauses (x) and (y) above nor any proviso requiring the prior separate approval of any of AIH, CV II or Merck GHI shall apply);

(iii) pay or declare any distribution on any securities of the Company, other than (x) required tax distributions or (y) distributions in connection with a Liquidation Event approved in accordance with this Agreement and made in conformity with Article VII;

(iv) the incurrence by the Company of aggregate indebtedness for borrowed money outstanding at any time in an amount in excess of $1,500,000;

(v) redeem, purchase or otherwise acquire any securities of the Company, other than repurchases from officers, Managers, consultants or other persons who performed services for the Company in connection with the cessation of such employment or service for an amount not in excess of $250,000 individually;

(vi) change the number of Managers constituting the entire Board;

(vii) enter into any transaction with any officer, Manager or Member of the Company who holds 5% or more of the total outstanding Units, or any Affiliate or Immediate Family Member of any of the foregoing, except pursuant to the exercise of preemptive rights pursuant to Section 5.5 or in connection with a Qualified Future Financing (provided any such person's participation in such Qualified Future Financing is on terms approved by the Board and identical to the terms of the other participants, and any participation by any such Affiliate is disclosed to the Board);

(viii) enter into any transaction with any Affiliate of the Company, except pursuant to the exercise of preemptive rights pursuant to Section 5.5 or in connection with a Qualified Future Financing (provided any such person's participation in such Qualified Future Financing is on terms approved by the Board and identical to the terms of the other participants, and any participation by any such Affiliate is disclosed to the Board);

(ix) the incurrence by the Company of any expenditures in any calendar year which are not set forth in the then approved annual budget to the extent in excess of $250,000 individually or $500,000 in the aggregate;

(x) effect a reclassification, reorganization or recapitalization of the outstanding membership interest of the Company; provided this clause (x) shall not apply to a Corporate Conversion in anticipation of (and conditioned upon) a Qualified Public Offering,

(xi) the entering into any agreement or other transaction by the Company to acquire another company or the assets of another company for consideration in excess of $500,000;

(xii) approve any Liquidation Event unless the holders of the outstanding Series B Preferred Units and Series B-1 Preferred Units have received or shall receive in connection with such transaction (in the aggregate taking into account all distributions, other than tax distributions, received from the Company from the original issue date of such Units) an amount per outstanding Series B Preferred Unit and Series B-1 Preferred Unit equal to or in excess of three times (3X) the Original Series B Issue Price applicable to each such outstanding Series B Preferred Unit and Series B-1 Preferred Unit; or

(xiii) except as provided in Section 5.1(d) relating to the implementation of the Transaction Bonus Plan, approve any increase by more than 1% of the total outstanding Units to the number of Units or options or profits interest available for issuance pursuant to any employee plan.

ARTICLE V
Units; Membership

5.1 Units Generally; Preference Units; Transaction Bonus Plan. (a) (i) The Membership Interests in the Company shall be represented by issued and outstanding Units, which may be divided into one or more types, classes or series, with each type or class or series having the rights and privileges, including voting rights, if any, set forth in this Agreement. As of the date hereof, the authorized capital of the Company shall consist of Common Units, Series A Preferred Units, Series B Preferred Units and Series B-1 Preferred Units; provided, however the Board may from time to time create such additional classes or series of Membership Interests, to be designated as Common Units, preferred Units, or such other type of class or series of Membership Interests as the Board shall determine, as provided for herein (and subject to any consents required herein). The holders of record of the Membership Interests shall have such rights and obligations associated with such Membership Interests as are provided herein and in the Designation, should any be adopted, of any such class or series of Membership Interest authorized pursuant to this Agreement. The Company shall maintain an accurate record of the Units and Percentage Interests of all Members on the Members Schedule.

(ii) Effective as of the date of the Second A&R Agreement, in exchange for, among other things, the elimination of the preference amount payable to the holders of the Series A Preferred Units pursuant to Section 7.2(a)(iii) of the Second A&R Agreement, each holder of record of Series A Preferred Units outstanding as of the date of the Second A&R Agreement was issued a number of Common Units (rounded to the nearest whole Unit) equal to a fraction (x) the numerator of which was equal the aggregate Original Series A Issue Price for such Series A Preferred Units held of record by such holder, and (y) the denominator of which was 1.17. Effective as of the date of the Second A&R Agreement, in exchange for, among other things, the elimination of the preference amount payable to the Common Investors pursuant to Section 7.2(a)(ii) of the Second A&R Agreement, each Common Investor was issued a number of Common Units (rounded to the nearest whole Unit) equal to a fraction (x) the numerator of which was equal the Common Preference Amount for such Common Investor, and (y) the denominator of which was 1.17. The Series A Preference Units and the Common Preference Units for each applicable Member are set forth on Schedule C hereto.

(iii) Any Common Units issued hereunder may, at the Board's discretion, and subject to any consent required hereunder, be issued as equity incentive intended to constitute "profits interests" (as such term is used for purposes of the Code) and the rules and regulations promulgated thereunder, including Rev. Proc. 93-27 and Rev. Proc. 2001-43. All such profits interests shall entitle its record owner to share in the appreciation in the fair market value of Company property from the date of issuance and not in any fair market value of Company property accrued prior to the issuance of such Units. Immediately prior to the issuance of each such Unit, the Capital Accounts of the Members shall be adjusted and all Company property shall be revalued pursuant to the definition of Book Value. No such Units shall be entitled to any retroactive allocation of the Company's income, gains, losses, deductions, credits, or other items. To the extent consistent with Section 706(d) of the Code and the Treasury

Regulations promulgated thereunder, the Company's books may be closed at the time any Member is issued such profits interests (as though the Company's tax year had ended) or the Company may credit to the Member being issued such Units his or its pro rata allocations of the Company's income, gains, losses, deductions, credits and items for that portion of the Company's fiscal year after the effective date of the issuance of such Units.

(b) The Membership Interests shall be represented by the Units which shall, unless otherwise provided therein, not be evidenced by any certificate or other written instrument, but shall only be evidenced by this Agreement and the holders of record of the Units shall be as is reflected on the books of the Company. Notwithstanding the foregoing, at the request of any Member, such Member shall be entitled to have its Units certificated in a form established by the Company.

(c) The total number of Units of all classes and series of Membership Interests which the Company shall have the authority to issue shall be: (i) 600,000,000 Common Units; (ii) 71,050,860 Series A Preferred Units; (iii) 123,000,000 Series B Preferred Units and (iv) 23,529,412 Series B-1 Preferred Units; provided that in no event shall more than such number of Series A Preferred Units be issued absent the Required Series A Consent and in no event shall more than such number of Series B Preferred Units and Series B-1 Preferred Units be issued absent the Required Series B Consent.

(d) After the date hereof, the Company, on such terms and conditions as shall be approved by the Board, may adopt a Transaction Bonus Plan. Subject to the foregoing approval, the Transaction Bonus Plan may be structured as the grant of additional Units of a new class or series of Membership Interest that is only entitled to its proportionate share of the amounts payable pursuant to such plan as a special allocation of Profit hereunder, with such limitations and restrictions thereon as the Board or the Compensation Committee shall deem reasonable or appropriate. The creation of any such new class or series of Membership Interests shall be a Designation pursuant to Section 5.2. The Required Series A Consent and Required Series B Consent shall not apply to a Transaction Bonus Plan, so long as approved by the Board, including each of the Investor Managers.

(e) In no event shall any employee, officer or director of the Company, or any other Person, be entitled to any anti-dilution adjustment (or similar right), of any sort, in connection with the issuance of any securities of the Company, other than (i) as specifically provided herein for the benefit of the holders of Preferred Units, (ii) anti-dilution rights granted to employees of the Company and set forth in the Disclosure Schedule to the A&R Series B Purchase Agreement (provided that, after giving effect to the final closing under the A&R Series B Purchase Agreement, or the Series B-1 Purchase Agreements, should there be any Series B-1 closings, no such employee shall be entitled to any further adjustment, and such rights shall no longer be in effect), and (iii) anti-dilution rights hereafter granted to Persons with the approval of the Board (including the approval of each of the Investor Managers, other than with respect to any anti-dilution rights that are consistent with those herein set forth granted to investors in connection with a Qualified Future Financing), including, without limitation, in connection with a Qualified Future Financing.

5.2 Designation of Additional Units. (a) Subject to Sections 4.9 and 4.10, without limiting any other consent required hereunder, additional Membership Interests may be created and issued from time to time in one or more classes or series with such relative rights, powers, preferences, limitations and restrictions as may from time to time be established in a written action or actions (herein referred to as a "Designation") of the Board providing for the issue of such class or series, as provided in and subject to the limitations of this Article and Section 13.1 (relating to amendments).

(b) The establishment of any such class or series of Membership Interest by a Designation shall set forth, to the extent appropriate:

(i) the number of Units that will constitute such class or series and the distinctive designation thereof;

(ii) whether such class or series shall have voting rights in addition to those set forth in this Agreement or required by law and, if so, the terms of such voting rights;

(iii) the annual rate (or method of calculation thereof), if any, pursuant to which such class or series shall have a preference as to Profits or Losses and distributions of property and the conditions and dates upon which such amounts shall be allocated to the Capital Accounts and/or such distributions shall be payable to the Members and the ability of the Company, if any, to defer such allocations or distributions for such class or series, the preference or relation, if other than pari passu, which such allocations or distributions shall have with respect to allocations and distributions on any other class or series of Membership Interests, and whether and to the extent such amounts and distributions shall be cumulative or noncumulative;

(iv) whether such class or series shall be subject to redemption by the Company (subject to any required approvals hereunder), and, if made subject to redemption, the times and other terms and conditions of such redemption (including the mandatory or optional nature of such redemption, whether such redemption shall be in whole and/or in part, and the amount and kind of consideration to be received upon such redemption);

(v) the amount or amounts which shall be paid out of the assets of the Company in respect of such class or series upon voluntary or involuntary liquidation, dissolution or winding-up of the Company, and any rights in addition to those set forth in this Agreement in respect of such class or series upon the liquidation, dissolution or winding-up of the Company;

(vi) whether or not such class or series shall be convertible into, or exchangeable for, Membership Interests of any other class or series of Membership Interests, or securities of any other kind, and if so convertible or exchangeable, the terms and conditions of such conversion or exchange, including the price or prices or the rate of conversion or exchange, the method, if any, of adjusting the same and the terms of any right to terminate such conversion exchange privilege;

(vii) any limitations and restrictions in addition to those set forth in this Agreement, to be effective while any Units of such class or series are outstanding, upon the allocation of Profits or Losses, or upon the distribution of property with respect to, and upon the purchase, redemption or other acquisition by the Company of, any of the other classes or series of Membership Interests;

(viii) any conditions or restrictions in addition to those set forth in this Agreement upon the issuance of any additional Membership Interests of any class or series;

(ix) the times, prices and other terms and conditions for the offering of the Units representing such class or series; and

(x) any other relative rights, powers, preferences, limitations and restrictions as shall not be inconsistent with this Section.

The specific terms of any such Designation shall be subject to any consent required hereunder.

(c) Subject to any consent required hereunder, any action or actions taken by the Board pursuant to the provisions of this Section shall be deemed an amendment and supplement to, and shall become a part of, this Agreement.

5.3 Issuance of Units. Subject to the limitations contained in this Agreement, including Sections 4.9, 4.10 and 5.5, the Company shall have the right from time to time to issue additional Units to such persons on such terms and for such consideration as the Board shall determine in its discretion. Notwithstanding the foregoing, the Company shall not issue any Units to any Person unless such Person has executed and delivered to the Company the documents described in Section 5.4 hereof. Upon the issuance of Units, the Company shall adjust the Capital Accounts of the Members as necessary in accordance with Section 6.2 and the Members Schedule shall be adjusted accordingly.

5.4 New Members from the Issuance of Units. In order for a Person to be admitted as a Member of the Company pursuant to the issuance of Units to such Person, such Person shall have executed and delivered to the Company a written undertaking to be bound by the terms and conditions of this Agreement in a form acceptable to the Company. Upon the amendment of the Members Schedule by the Company and the satisfaction of any other applicable conditions, including, if a condition, the receipt by the Company of payment for the issuance of the applicable Units, such Person shall be admitted as a Member and deemed listed as such on the books and records of the Company and thereupon shall be issued his or its Units. The Board shall also adjust the Capital Accounts of the Members as necessary in accordance with Section 6.2.

5.5 Preemptive Rights.

(a) Subject to the terms and conditions of this Section 5.5 and applicable securities laws, and any consent required hereunder, if the Company proposes to offer or sell any New Securities, the Company shall first offer such New Securities to each Major Holder.

(b) The Company shall give notice (the "Offer Notice") to each Major Holder, stating (i) its bona fide intention to offer such New Securities, (ii) the number of such New Securities to be offered, and (iii) the price and terms, if any, upon which it proposes to offer such New Securities.

(c) By notification to the Company within twenty (20) days after the Offer Notice is given, each Major Holder may elect to purchase or otherwise acquire, at the price and on the terms specified in the Offer Notice, up to that portion of such New Securities which equals the proportion that the Common Units issued and held, or issuable (directly or indirectly) upon conversion and/or exercise, as applicable, of the Preferred Units and any other Derivative Securities then held, by such Major Holder bears to the total Common Units of the Company then outstanding (assuming full conversion and/or exercise, as applicable, of all Preferred Units and other Derivative Securities). At the expiration of such twenty (20) day period, the Company shall promptly notify each Major Holder that elects to purchase or acquire all the securities available to it (each, a "Fully Exercising Major Holder") of any other Major Holder's failure to do likewise. During the ten (10) day period commencing after the Company has given such notice, each Fully Exercising Major Holder may, by giving notice to the Company, elect to purchase or acquire, in addition to the number of securities specified above, up to that portion of the New Securities for which Major Holders were entitled to subscribe but that were not subscribed for by the Major Holders which is equal to the proportion that the Common Units issued and held, or issuable (directly or indirectly) upon conversion and/or exercise, as applicable, of Preferred Units and any other Derivative Securities then held, by such Fully Exercising Major Holder bears to the Common Units issued and held, or issuable (directly or indirectly) upon conversion and/or exercise, as applicable, of the Preferred Units and any other Derivative Securities then held, by all Fully Exercising Major Holders who wish to purchase such unsubscribed securities. The closing of any sale pursuant to this Section shall occur within the later of ninety (90) days of the date that the Offer Notice is given and the date of initial sale of New Securities pursuant to subsection (a) of this Section.

(d) If all New Securities referred to in the Offer Notice are not elected to be purchased or acquired as provided in subsection (b) of this Section, the Company may, during the ninety (90) day period following the expiration of the periods provided in subsection (b) of this Section (or such longer period as the Board determines to keep such offer open), offer and sell the remaining unsubscribed portion of such New Securities to any Person or Persons at a price not less than, and upon terms no more favorable to the offeree than, those specified in the Offer Notice. If the Company does not enter into an agreement for the sale of the New Securities within such period, or if such agreement is not consummated within thirty (30) days of the execution thereof, the right provided hereunder shall be deemed to be revived and such New Securities shall not be offered unless first reoffered to the Major Holders in accordance with this Section.

(e) The right of first offer in this Section shall not be applicable to (i) Exempted New Securities; (ii) securities issued in any Public Offering (so long as all Major Holders have the same, pro rata, right to participate in any purchase thereof on the same terms); and (iii) the issuance of shares of Series B Preferred Units under either the Series B Purchase Agreement or the A&R Series B Purchase Agreement and up to 23,529,412 Series B-1 Preferred Units under the Series B-1 Purchase Agreements.

(f) The covenants set forth in this Section shall terminate and be of no further force or effect (i) immediately before the consummation of the Company's initial Public Offering**,** (ii) when the Company first becomes subject to the periodic reporting requirements of Section 12(g) or 15(d) of the Exchange Act, or (iii) upon a Deemed Liquidation Event, whichever event occurs first.

(g) For purposes of this Agreement, the term "Exempted New Securities" shall mean: (i) New Securities issued as a stock or unit dividend or other distribution or upon any subdivision, split or combination of the currently outstanding Units (or any such Units the original issuance of which was conducted in accordance with this Section); (ii) New Securities issued upon conversion, exchange or redemption of any currently outstanding convertible or exchangeable securities (or any New Securities the original issuance of which was conducted in accordance with this Section); (iii) New Securities issued upon exercise of any currently outstanding options or warrants (or any such options or warrants the original issuance of which was conducted in accordance with this Section); (iv) New Securities issued to any employee, former employee, consultant, financial or other advisor, Manager or advisory board member of the Company or any of its subsidiaries as compensation or as an incentive for services, including in connection with the implementation of the Transaction Bonus Plan pursuant to Section 5.1(d); (v) New Securities issued as consideration (whether partial or otherwise) for the purchase by the Company or any of its subsidiaries of assets constituting a business unit or of the stock or other equity securities of any Person or Persons; (vi) New Securities issued pursuant to a Public Offering; (vii) New Securities issued in connection with the conversion of the Company from a limited liability company into a corporation; (viii) Units issued or issuable pursuant to the Series B Purchase Agreement, the A&R Series B Purchase Agreement or the common warrants issued thereunder (or upon conversion or exercise of any such Units or such common warrants) or up to 23,529,412 Units issued or issuable pursuant to the Series B-1 Purchase Agreements; and (ix) New Securities designated by the Company, with the Required Preferred Consent, as being Exempted New Securities.

5.6 Conversion of Preferred Units.

(a) In General. Subject to the terms of this Section, each Preferred Unit outstanding shall, from and after the issue date of such Preferred Unit, be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into a number of Common Units equal to the fraction the numerator of which shall be the Original Issue Price for the Preferred Unit to be converted and the denominator of which shall be the Conversion Price applicable to the Preferred Unit to be converted in effect at the time of conversion. The "Conversion Price" shall mean, (i) for the Series A Preferred Units issued at either the Initial Closing or any Required Milestone Closing

(as each such term is defined under the Series A Purchase Agreement) or pursuant to the CV Series A Warrant, $0.73527 (subject to adjustment from time to time as provided in this Section); (ii) for all other Series A Preferred Units, $0.85 (subject to adjustment from time to time as provided in this Section); (iii) for the Series B Preferred Units, $0.70 (subject to adjustment from time to time as provided in this Section); and (iv) for the Series B-1 Preferred Units, $0.85 (subject to adjustment from time to time as provided in this Section). In the event of a liquidation, dissolution or winding up of the Company or a Deemed Liquidation Event, the conversion rights hereunder with respect to the Preferred Units shall terminate at the close of business on the last full day preceding the date fixed for the payment of any such amounts distributable on such event to the holders of Preferred Units; provided that a holder of Preferred Units may elect to convert subject to, and conditioned upon, consummation of a Deemed Liquidation Event (notwithstanding anything herein to the contrary).

(b) Adjustment for Unit Splits and Combinations. If the Company shall at any time or from time to time after the date hereof effect a subdivision of the outstanding Common Units, the Conversion Price applicable to each series of Preferred Units in effect immediately before that subdivision shall be proportionately decreased so that the number of Common Units issuable on conversion of each such Unit shall be increased in proportion to such increase in the aggregate number of Common Units outstanding. If the Company shall at any time or from time to time after the date hereof combine the outstanding Common Units, the Conversion Price applicable to each series of Preferred Units in effect immediately before the combination shall be proportionately increased so that the number of Common Units issuable on conversion of each Preferred Unit shall be decreased in proportion to such decrease in the aggregate number of Common Units outstanding. Any adjustment under this subsection shall become effective at the close of business on the date the subdivision or combination becomes effective.

(c) Adjustment of Conversion Prices Upon Issuance of Additional Common Units. In the event the Company shall at any time after the date hereof issue Additional Common Units (including Additional Common Units deemed to be issued pursuant to this Section), without consideration or for a consideration per Unit less than the then applicable Conversion Price for any series of Preferred Units, then the Conversion Price applicable to such series of Preferred Units shall be reduced, concurrently with such issue, to a price (calculated to the nearest one-hundredth of a cent) determined in accordance with the following formula:

$$CP_2 = CP_1 * (A + B) \div (A + C).$$

For purposes of the foregoing formula, the following definitions shall apply:

(A) "CP_2" shall mean the Conversion Price applicable to such series of Preferred Units as in effect immediately after such issue of Additional Common Units;

(B) "CP_1" shall mean the Conversion Price applicable to such series of Preferred Units as in effect immediately prior to such issue of Additional Common Units;

(C) "A" shall mean the number of Common Units outstanding immediately prior to such issue of Additional Common Units (treating for this purpose as outstanding all Common Units issuable upon exercise of Options outstanding immediately prior to such issue or upon conversion or exchange of Convertible Securities (including the Preferred Units) outstanding (assuming exercise of any outstanding Options therefor) immediately prior to such issue);

(D) "B" shall mean the number of Common Units that would have been issued if such Additional Common Units had been issued at a price per share equal to CP_1 (determined by dividing the aggregate consideration received by the Company in respect of such issue by CP_1); and

(E) "C" shall mean the number of such Additional Common Units issued in such transaction.

For purposes of this Section, the following definitions shall apply:

(i) "Option" shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire Common Units or Convertible Securities.

(ii) "Convertible Securities" shall mean any evidences of indebtedness, shares or other securities directly or indirectly convertible into or exchangeable for Common Units, but excluding Options.

(iii) "Additional Common Units" shall mean all Common Units issued (or, pursuant to subsection (d) of this Section, deemed to be issued) by the Company after the date hereof, other than (i) all securities issued or issuable pursuant to the Series B Purchase Agreement, the A&R Series B Purchase Agreement, the Series B-1 Purchase Agreements or the Series B Bridge Warrants, in each case, at a price no less than the Original Series B Issue Price, and subject to an overall cap of 123,000,000 Series B Preferred Units and 23,521,412 Series B-1 Preferred Units, and (ii) the following Common Units and (2) Common Units deemed issued pursuant to the following Options and Convertible Securities (clauses (i) and (ii), collectively, "Exempted Securities"):

(A) Common Units, Options or Convertible Securities issued as a dividend or distribution on Preferred Units;

(B) Common Units, Options or Convertible Securities issued by reason of a dividend, Unit split, split-up;

(C) Common Units (including any "profits interests" pursuant to Section 5.1(a)(ii)) or Options issued to employees or directors of, or consultants or advisors to, the Company or any of its subsidiaries pursuant to a plan, agreement or other issuance approved by the Board, or any Units issued pursuant to the Transaction Bonus Plan;

(D) Common Units or Convertible Securities actually issued upon the exercise of Options or Common Units actually issued upon the conversion or exchange of Convertible Securities, in each case provided such issuance is pursuant to the terms of such Option or Convertible Security;

(E) Common Units, Options or Convertible Securities issued to banks, equipment lessors or other financial institutions, or to real property lessors, pursuant to a debt financing, equipment leasing or real property leasing transaction or acquisition or license of any assets or business, in each case as approved by the Board; or

(F) (i) Common Units issued or issuable pursuant to (x) the Series B Commitment Letter, or (y) conversion of the Series B Units issued or issuable pursuant to the Series B Purchase Agreement, the A&R Series B Purchase Agreement, the Series B-1 Purchase Agreements or the Series B Bridge Warrants, and (ii) the Preference Units outstanding as of the date hereof.

(d) Deemed Issue of Additional Common Units

(i) If the Company at any time or from time to time after the date hereof shall issue any Options or Convertible Securities (excluding Options or Convertible Securities which are themselves Exempted Securities) or shall fix a record date for the determination of holders of any class of securities entitled to receive any such Options or Convertible Securities, then the maximum number of Common Units (as set forth in the instrument relating thereto, assuming the satisfaction of any conditions to exercisability, convertibility or exchangeability but without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or, in the case of Convertible Securities and Options therefor, the conversion or exchange of such Convertible Securities, shall be deemed to be Additional Common Units issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date.

(ii) If the terms of any Option or Convertible Security, the issuance of which resulted in an adjustment to the Conversion Price for any series of Preferred Units pursuant to the terms of subsection (c) of this Section, are revised as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase or decrease in the number of Common Units issuable upon the exercise, conversion and/or exchange of any such Option or Convertible Security or (2) any increase or decrease in the consideration payable to the Company upon such exercise, conversion and/or exchange, then, effective upon such increase or decrease becoming effective, the applicable Conversion Price for each series of Preferred Units computed upon the original issue of such Option or Convertible Security (or upon the occurrence of a record date with respect thereto) shall be readjusted to such Conversion Price as would have obtained had such revised terms been in effect upon the original

date of issuance of such Option or Convertible Security. Notwithstanding the foregoing, no readjustment pursuant to this clause (ii) shall have the effect of increasing the Conversion Price for any series of Preferred Units to an amount which exceeds the lower of (i) the Conversion Price for such series of Preferred Units in effect immediately prior to the original adjustment made as a result of the issuance of such Option or Convertible Security, or (ii) the Conversion Price that would have resulted from any issuances of Additional Common Units (other than deemed issuances of Additional Common Units as a result of the issuance of such Option or Convertible Security) between the original adjustment date and such readjustment date.

(iii) If the terms of any Option or Convertible Security (excluding Options or Convertible Securities which are themselves Exempted Securities), the issuance of which did not result in an adjustment to the Conversion Price for any series of Preferred Units pursuant to the terms of subsection (c) of this Section (either because the consideration per share of the Additional Common Units subject thereto was equal to or greater than the applicable Conversion Price then in effect, or because such Option or Convertible Security was issued before the date hereof), are revised after the date hereof as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase in the number of Common Units issuable upon the exercise, conversion or exchange of any such Option or Convertible Security or (2) any decrease in the consideration payable to the Company upon such exercise, conversion or exchange, then such Option or Convertible Security, as so amended or adjusted, and the Additional Common Units subject thereto (determined in the manner provided in clause (i) above shall be deemed to have been issued effective upon such increase or decrease becoming effective.

(iv) Upon the expiration or termination of any unexercised Option or unconverted or unexchanged Convertible Security (or portion thereof) which resulted (either upon its original issuance or upon a revision of its terms) in an adjustment to the Conversion Price for any series of Preferred Units pursuant to the terms of subsection (c) of this Section, such Conversion Price shall be readjusted to such Conversion Price as would have obtained had such Option or Convertible Security (or portion thereof) never been issued.

(v) If the number of Common Units issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Company upon such exercise, conversion and/or exchange, is calculable at the time such Option or Convertible Security is issued or amended but is subject to adjustment based upon subsequent events, any adjustment to the Conversion Price for any series of Preferred Units provided for in this subsection (d) shall be effected at the time of such issuance or amendment based on such number of Units or amount of consideration without regard to any provisions for subsequent adjustments (and any subsequent adjustments shall be treated as provided in clauses (ii) and (iii) of this subsection (d)). If the number of Common Units issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Company upon such exercise, conversion and/or exchange, cannot be calculated at all at the time such Option or Convertible Security is issued or amended, any adjustment to the Conversion Price for any series of Preferred Units that would result under the terms of this subsection (d) at the time of such issuance or amendment shall instead be effected at the time

such number of shares and/or amount of consideration is first calculable (even if subject to subsequent adjustments), assuming for purposes of calculating such adjustment to the applicable Conversion Price that such issuance or amendment took place at the time such calculation can first be made.

(e) No Adjustment of Conversion Price. No adjustment to the Conversion Price for (x) the Series A Preferred Units shall be made as the result of the issuance or deemed issuance of Additional Common Units if the Company receives written notice from holders of Series A Preferred Units representing the Required Series A Consent; (y) the Series B Preferred Units shall be made as the result of the issuance or deemed issuance of Additional Common Units if the Company receives written notice from holders of 66% of the outstanding Series B Preferred Units; and (z) the Series B-1 Units shall be made as the result of the issuance or deemed issuance of Additional Common Units if the Company receives written notice from holders of at least 66% of the outstanding Series B-1 Preferred Units, in each case agreeing that no such adjustment shall be made as the result of the issuance or deemed issuance of such Additional Common Units.

(f) Multiple Closing Dates. In the event the Company shall issue on more than one date Additional Common Units that are a part of one transaction or a series of related transactions and that would result in an adjustment to the Conversion Price for any series of Preferred Units pursuant to the terms of subsection (c) of this Section, then, upon the final such issuance, the Conversion Price for such series of Preferred Units shall be readjusted to give effect to all such issuances as if they occurred on the date of the first such issuance (and without giving effect to any additional adjustments as a result of any such subsequent issuances within such period).

(g) Adjustment for Merger or Reorganization, etc. Subject to the provisions of this Agreement as it relates to a Deemed Liquidation Event, if there shall occur any reorganization, recapitalization, reclassification, consolidation or merger involving the Company in which the Common Units (but not the Preferred Units) are converted into or exchanged for securities, cash or other property (other than a transaction covered by subsection (b) of this Section), then, following any such reorganization, recapitalization, reclassification, consolidation or merger, each Preferred Unit shall thereafter be convertible in lieu of the Common Units into which it was convertible prior to such event into the kind and amount of securities, cash or other property which a holder of the Common Units issuable upon conversion of the Preferred Units immediately prior to such reorganization, recapitalization, reclassification, consolidation or merger would have been entitled to receive pursuant to such transaction; and, in such case, appropriate adjustment (as determined in good faith by the Board) shall be made in the application of the provisions in this Section with respect to the rights and interests thereafter of the holders of the Preferred Units, to the end that the provisions set forth in this Section (including provisions with respect to changes in and other adjustments of the Conversion Prices) shall thereafter be applicable, as nearly as reasonably may be, in relation to any securities or other property thereafter deliverable upon the conversion of the Preferred Units.

(h) Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of the Conversion Price for any series of Preferred Units pursuant to this Section, the Company at its expense shall, as promptly as reasonably practicable but in any event not later

than 10 days thereafter, compute such adjustment or readjustment in accordance with the terms hereof and furnish to each holder of such series of Preferred Units a certificate setting forth such adjustment or readjustment (including the kind and amount of securities, cash or other property into which such series of Preferred Units are convertible) and showing in detail the facts upon which such adjustment or readjustment is based. The Company shall, as promptly as reasonably practicable after the written request at any time of any holder of Preferred Units (but in any event not later than 10 days thereafter), furnish or cause to be furnished to such holder a certificate setting forth (i) the Conversion Price applicable to such Preferred Units then in effect, and (ii) the number of Common Units and the amount, if any, of other securities, cash or property which then would be received upon the conversion of such Preferred Units.

(i) Notice of Record Date. In the event:

(A) the Company shall take a record of the holders of its Common Units (or other securities at the time issuable upon conversion of the Preferred Units) for the purpose of entitling or enabling them to receive any dividend or other distribution, or to receive any right to subscribe for or purchase any Units or any other securities, or to receive any other security; or

(B) of any capital reorganization of the Company, any reclassification of the Common Units, or any Deemed Liquidation Event; or

(C) of the voluntary or involuntary dissolution, liquidation or winding-up of the Company,

then, and in each such case, the Company will send or cause to be sent to the holders of the Preferred Units a notice specifying, as the case may be, (i) the record date for such dividend, distribution or right, and the amount and character of such dividend, distribution or right, or (ii) the effective date on which such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up is proposed to take place, and the time, if any is to be fixed, as of which the holders of record of Common Units (or such other Units or securities at the time issuable upon the conversion of the Preferred Units) shall be entitled to exchange their Common Units (or such other Units or securities) for securities or other property deliverable upon such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up, and the amount per Unit and character of such exchange applicable to the Preferred Units and the Common Units. Such notice shall be sent at least 10 days prior to the record date or effective date for the event specified in such notice.

(j) No Fractional Units. No fractional Common Units shall be issued upon conversion of the Preferred Units. In lieu of any fractional Units to which the holder would otherwise be entitled, the Company shall pay cash equal to such fraction multiplied by the fair market value of one Common Unit as determined in good faith by the Board of Managers. Whether or not fractional Units would be issuable upon such conversion shall be determined on the basis of the total number of Preferred Units the holder is at the time converting into Common Units and the aggregate number of Common Units issuable upon such conversion.

(k) Mandatory Conversion.

(i) Upon either (a) the closing of a Qualified Public Offering, or (b) the date and time, or the occurrence of an event, specified in a written consent executed by Members holding Preferred Units representing the Required Series A Consent (including, for the avoidance of doubt, approval of each of CV II and Merck GHI so long as such party holds Series A Preferred Units) (the time of such closing or the date and time specified or the time of the event specified in such vote or written consent is referred to herein as the "Mandatory Series A Conversion Time"), (i) all outstanding Series A Preferred Units shall automatically be converted into Common Units, at the then effective Conversion Price applicable to the Series A Preferred Units and (ii) such Units may not be reissued by the Company. Upon either (a) the closing of a Qualified Public Offering, or (b) the date and time, or the occurrence of an event, specified in a written consent executed by Members holding Preferred Units representing the Required Series B Consent (so long as such consent includes the approval of each of CV II, Merck GHI and AIH so long as such party holds Series B Preferred Units) (the time of such closing or the date and time specified or the time of the event specified in such vote or written consent is referred to herein as the "Mandatory Series B Conversion Time" and, together with the Mandatory Series A Conversion Time, the "Mandatory Conversion Time"), (i) all outstanding Series B Preferred Units and Series B-1 Preferred Units shall automatically be converted into Common Units, at the then effective Conversion Price applicable to the Series B Preferred Units and the Series B-1 Preferred Units, and (ii) such Units may not be reissued by the Company.

(ii) All holders of record of Preferred Units shall be sent written notice of the Mandatory Conversion Time applicable to such Preferred Units and the place designated for mandatory conversion of all such Preferred Units pursuant to this Section. Such notice need not be sent in advance of the occurrence of the Mandatory Conversion Time. All rights with respect to the Preferred Units converted pursuant to this subsection, including the rights, if any, to receive notices and vote (other than as a holder of Common Units), will terminate at the applicable Mandatory Conversion Time, except only the rights of the holders thereof to receive the items provided for in the next sentence of this subsection. As soon as practicable after the applicable Mandatory Conversion Time, the Company shall reflect on its books and records the issuance to such holder, or to his, her or its nominees, of the number of full Common Units issuable on such conversion in accordance with the provisions hereof, together with cash as provided in subsection (j) in lieu of any fraction of a Common Unit otherwise issuable upon such conversion and the payment of any declared but unpaid distributions on the Preferred Units converted, without limiting Section 5.6(k)(iii). Such converted Preferred Units shall be retired and cancelled and may not be reissued, and the Company may thereafter take such appropriate action (without the need for Member action) as may be necessary to reduce the authorized number of Preferred Units accordingly.

(iii) In the event of a conversion of Preferred Units in connection with a Public Offering, each holder of Series A Preferred Units so converted shall be entitled to receive, in addition to the Common Units issuable upon conversion thereof, the form of which at the Company's sole discretion either (i) a cash payment equal to the Fixed Series A Return in respect of such converted Series A Preferred Units, or (ii) Common Units (or shares of common stock, as applicable) with a value equal to the Fixed Series A Return in respect of such converted Series A Preferred Units (valuing such Common Units (or common stock) based on the closing price for such securities in the Public Offering). Such cash or securities shall be paid or issued by the Company upon the closing of such Public Offering.

ARTICLE VI
Capital Contributions and Capital Accounts

6.1 Capital Contributions; Capital Calls.

(a) Each Member has made, or shall make, the capital contribution, if any, and shall perform the commitment described in the subscription or other agreement entered into with the Company pursuant to which such Member acquired its Membership Interest.

(b) Except as provided in a separate agreement with such Member, no Member shall be required to make any additional contributions to the Company with respect to such Member's Units. Except as expressly provided herein, no Member, in its capacity as a Member, shall have the right to receive any cash or any other property of the Company.

6.2 Capital Accounts.

(a) Maintenance Rules. The Company shall maintain for each Member a separate capital account (a "Capital Account") in accordance with this Section 6.2(a). For the avoidance of doubt, each Warrant shall be treated as a Noncompensatory Option but shall not be treated as exercised upon issuance, and, therefore, each holder of a Warrant shall not (for purposes of the Warrant) be treated as a Member in the Company, and thus, the holder of a Warrant will not receive any allocation of income, gain, loss or deduction in respect of any Units underlying such Warrant until such Units are actually issued following exercise of such Warrant. Each Capital Account shall be maintained in accordance with the following provisions:

(i) Such Capital Account shall be increased by the cash amount or Book Value of any property contributed by such Member to the Company pursuant to this Agreement, such Member's allocable share of Profits and any items in the nature of income or gains which are specially allocated to such Member pursuant to Section 8.2 or Section 8.3, and the amount of any liabilities of the Company assumed by such Member or which are secured by any property distributed to such Member.

(ii) Such Capital Account shall be decreased by the cash amount or Book Value of any property distributed to such Member pursuant to this Agreement, such Member's allocable share of Losses and any items in the nature of deductions or losses which are specially allocated to such Member pursuant to Section 8.2 or Section 8.3, and the amount of any liabilities of such Member assumed by the Company or which are secured by any property contributed by such Member to the Company.

(iii) If all or any portion of a Unit is transferred in accordance with the terms of this Agreement, the transferee shall succeed to the Capital Account of the transferor to the extent it relates to the transferred Unit (or portion thereof).

(iv) If (A) a new or existing Member contributes money or property to the Company (other than a de minimis amount as determined by the Board) as

consideration for the issuance by the Company of any Units after the date hereof, (B) Units intended to constitute "profits interests" for services to be rendered for federal income tax purposes are issued, (C) the Company distributes more than a de minimis amount of Company assets other than cash as consideration for all or part of its Units, or (D) Preferred Units are converted into Common Units, (E) immediately prior to a Corporate Conversion pursuant to Section 11.7(a), or (F) Noncompensatory Options are issued, the Capital Accounts of the Members shall be adjusted in accordance with Treasury Regulation Section 1.704 1(b)(2)(iv)(f); provided, however, that in the event of the issuance of any Unit pursuant to the exercise of a Noncompensatory Option where the right to share in capital represented by such Unit differs from the consideration paid to acquire and exercise such option, the Book Value of Company assets immediately after the issuance of such Unit shall be adjusted upward or downward to reflect any unrealized gain or unrealized loss attributable to such assets and the Capital Accounts of the Members shall be adjusted in a manner consistent with Treasury Regulation Section 1.704-1(b)(2)(iv)(s); provided further, however, that in the event of an issuance of Units for a de minimis amount of cash or contributed property, in the event of an issuance of a Noncompensatory Option to acquire a de minimis amount of Units, or in the event of an issuance of a de minimis amount of Units as consideration for the provision of services, the Board may determine that such adjustments are unnecessary for the proper administration of the Company. If, upon the occurrence of an event described in this Section 6.2(a)(iv), a Noncompensatory Option of the Company is outstanding, the Company shall adjust the Book Value of each Company asset in accordance with Treasury Regulation Sections 1.704-1(b)(2)(iv)(f)(1) and 1.704-1(b)(2)(iv)(h)(2). In making such adjustments pursuant to a conversion of Preferred Units into Common Units, the Preferred Units shall be treated as convertible equity under Treasury Regulations Section 1.721-2(g)(3), and adjustments shall be made by subtracting the value of the conversion feature of the Preferred Units from Fair Market Value before adjusting the Book Value of Company assets as provided in Treasury Regulations Sections 1.704-1(b)(2)(iv)(h)(2) and 1.704-1(b)(2)(iv)(s).

The foregoing provisions and the other provisions of this Agreement relating to the maintenance of Capital Accounts are intended to comply with Section 1.704-1(b) of the Treasury Regulations and shall be interpreted and applied in a manner consistent with such Treasury Regulations. If the Board determines that it is prudent to modify the manner in which the Capital Accounts, or any increases or decreases to the Capital Accounts, are computed in order to comply with such Treasury Regulations, the Board may authorize such modifications.

(b) Definition of Profits and Losses. "Profits" and "Losses" mean, for each Taxable Year or other period, an amount equal to the Company's taxable income or loss, respectively, for such Taxable Year or other period, determined in accordance with Code Section 703(a) (for this purpose, all items of income, gain, loss or deduction required to be stated separately pursuant to Code Section 703(a)(1) shall be included in taxable income or loss), with the following adjustments:

(i) The computation of all items of income, gain, loss and deduction shall include tax-exempt income and those items described in Treasury Regulation Section 1.704-1(b)(2)(iv)(i), without regard to the fact that such items are not includable in gross income or are not deductible for federal income tax purposes.

(ii) If the Book Value of any Company property is adjusted pursuant to Treasury Regulation Section 1.704-1(b)(2)(iv)(e) or (f), the amount of such adjustment shall be taken into account as gain or loss from the disposition of such property.

(iii) Items of income, gain, loss or deduction attributable to the disposition of Company property having a Book Value that differs from its adjusted basis for tax purposes shall be computed by reference to the Book Value of such property.

(iv) Items of depreciation, amortization and other cost recovery deductions with respect to Company property having a Book Value that differs from its adjusted basis for tax purposes shall be computed by reference to the property's Book Value in accordance with Treasury Regulation Section 1.704-1(b)(2)(iv)(g).

(v) To the extent an adjustment to the adjusted tax basis of any Company property pursuant to Code Sections 732(d), 734(b) or 743(b) is required, pursuant to Treasury Regulation Section 1.704-1(b)(2)(iv)(m), to be taken into account in determining Capital Accounts, the amount of such adjustment to the Capital Accounts shall be treated as an item of gain (if the adjustment increases the basis of the asset) or loss (if the adjustment decreases such basis).

6.3 Negative Capital Accounts. If any Member has a deficit balance in its Capital Account, such Member shall have no obligation to restore such negative balance or to make any Capital Contributions to the Company by reason thereof, and such negative balance shall not be considered an asset of the Company or of any Member.

6.4 No Withdrawal. No Member will be entitled to withdraw any part of his or its Capital Contribution or Capital Account or to receive any distribution from the Company, except as expressly provided in this Agreement.

6.5 Loans From Members. Loans by Members to the Company shall not be considered Capital Contributions.

6.6 Status of Capital Contributions.

(a) No Member shall receive any interest, salary or drawing with respect to its Capital Contributions or its Capital Account, except as otherwise specifically provided in this Agreement.

(b) Except as otherwise provided herein, no Member shall be required to lend any funds to the Company or to make any additional Capital Contributions to the Company. No Member shall have any personal liability for the repayment of any Capital Contribution of any other Member.

ARTICLE VII
Distributions

7.1 Generally.

(a) Subject to Sections 7.2, 7.3, 4.9 and 4.10, the Board shall have sole discretion regarding the amounts and timing of distributions to Members in respect of the outstanding Units, in each case subject to the retention and establishment in good faith of reserves of, or payment to third parties of, such funds as it deems reasonably necessary with respect to the reasonable business needs of the Company which shall include the payment or the making of provision for the payment when due of the Company's obligations, including the payment of any management or administrative fees and expenses or any other obligations, including any amounts payable under the Transaction Bonus Plan (the amount of cash on hand in excess of such reserves and other amounts at any given time being referred to herein as the "Available Cash").

(b) Notwithstanding any provision to the contrary contained in this Agreement, the Company shall not make any distribution to Members if such distribution would violate Section 18-607 of the Delaware Act or other applicable law.

7.2 Interim Distributions. Subject to Sections 7.1(b), 7.3, 4.9 and 4.10, non-liquidating distributions of Available Cash or other assets (taking such other assets into account at their Fair Market Value at the time of distributions) shall be distributed, at such times and in such amounts as the Board determines in its sole discretion, to the Members in the following order and priority:

(a) First, to the holders of the outstanding Series B Preferred Units and Series B-1 Preferred Units (to the extent not converted into Common Units at or prior to the date of any such distribution), on a per Unit basis, in an amount equal to the Series B Unreturned Capital Value with respect to all outstanding Series B Preferred Units and the Series B-1 Unreturned Capital Value with respect to all outstanding Series B-1 Preferred Units. If upon any such distribution, the amount to be distributed shall be insufficient to pay the holders of the Series B Preferred Units and the Series B-1 Preferred Units the full amount to which they shall be entitled under this Section 7.2(a), the holders of the Series B Preferred Units and the Series B-1 Preferred Units shall share ratably in any such distribution in proportion to the respective amounts which would otherwise be payable in respect of such Units held by them upon such distribution if all amounts payable on or with respect to such Units pursuant to this Section 7.2(a) were paid in full;

(b) Second, to the holders of the outstanding Series A Preferred Units (to the extent not converted into Common Units at or prior to the date of any such distribution), on a per Unit basis, in an amount equal to the sum of (x) the Series A Unreturned Capital Value, and (y) the accrued and unpaid Series A Preferred Return with respect to all outstanding Series A Preferred Units. If upon any such distribution (after paying in full the amounts due the holders of the Series B Preferred Units under Section 7.2(a)) the remaining amount to be distributed shall be insufficient to pay the holders of the Series A Preferred Units the full amount to which they shall be entitled under this Section 7.2(b),

the holders of the Series A Preferred Units shall share ratably in any such remaining distribution in proportion to the respective amounts which would otherwise be payable in respect of such Units held by them upon such distribution if all amounts payable on or with respect to such Units pursuant to this Section 7.2(b) were paid in full; and

(c) Thereafter, the balance of the proposed distribution shall be paid to all of the holders of Common Units and Preferred Units, on a per Unit basis (treating all Preferred Units on an as-if converted to Common Units basis); provided, that distributions to the holders of Common Units issued as profits interests shall be limited to a share of distributions attributable to profits and appreciation after such Common Units were granted.

7.3 Tax Advances. Subject to the restrictions of any of the Company's and/or its subsidiaries' then applicable debt financing agreements, as close as is practicable to each date prescribed by the Code for an individual to pay quarterly installments of estimated tax, the Company shall distribute to each Member out of Available Cash, if any, cash in proportion to and to the extent of such Member's Quarterly Estimated Tax Amount for the applicable calendar quarter. If, at any time after the final Quarterly Estimated Tax Amount has been distributed pursuant to the previous sentence with respect to any Fiscal Year, the aggregate Tax Advances to any Member with respect to such Fiscal Year are less than such Member's Tax Amount for such Fiscal Year (a "Shortfall Amount"), the Company shall use commercially reasonable efforts to distribute cash in proportion to and to the extent of each Member's Shortfall Amount. The Company shall use commercially reasonable efforts to distribute Shortfall Amounts with respect to a Fiscal Year before the 75th day of the next succeeding Fiscal Year (provided that if the Company has made distributions other than pursuant to this Section 7.3, the Board may apply such distributions to reduce any Shortfall Amount). If the aggregate distributions made to any Member pursuant to this Section 7.3 for any Fiscal Year exceed such Member's Tax Amount (an "Excess Amount") such Excess Amount shall reduce subsequent distributions that would be made to such Member pursuant to this Section 7.3, except to the extent taken into account as an advance pursuant to the next sentence. Distributions made pursuant to this Section 7.3 shall be taken into account as advances on distributions payable pursuant to Section 7.2 (excluding distributions of Series A Unreturned Capital Value, Series B Unreturned Capital Value, or Series B-1 Unreturned Capital Value, as applicable), and shall (to the extent not previously taken into account pursuant to this sentence) reduce such distributions to be made to any Member under Section 7.2, when and as paid by the Company. No Member shall be liable to the Company for any amount distributed to it pursuant to this Section 7.3, or for any interest on such amount.

7.4 Indemnification and Reimbursement for Payments on Behalf of a Member. Except as otherwise provided in this Agreement, if the Company is required by law (as determined by the Tax Matters Person based on the advice of legal or tax counsel to the Company) to make any payment on behalf of a Member in its capacity as such (including in respect of withholding taxes, personal property taxes, and unincorporated business taxes, etc.), then such Member (the "Indemnifying Member") will indemnify the Company in full for the entire amount paid, including interest, penalties and expenses associated with such payment. At the option of the Board, the amount to be indemnified may be charged against a Capital Account of the Indemnifying Member, and, at the option of the Board, either:

(a) promptly upon notification of an obligation to indemnify the Company, the Indemnifying Member will make a cash payment to the Company in an amount equal to the full amount to be indemnified (and the amount paid will be added to the Indemnifying Member's Capital Account but will not be deemed to be a Capital Contribution), or

(b) the Company will reduce distributions which would otherwise be made to the Indemnifying Member until the Company has recovered the amount to be indemnified (and the amount of such reduction will be deemed to have been distributed for all purposes, but such deemed distribution will not further reduce the Indemnifying Member's Capital Account).

A Member's obligation to make contributions to the Company under this Section 7.4 will survive the termination, dissolution, liquidation and winding up of the Company, and for purposes of this Section 7.4, the Company will be treated as continuing in existence. The Company may pursue and enforce all rights and remedies it may have against each Member under this Section 7.4, including instituting a lawsuit to collect such contribution with interest calculated at a rate equal to the Company's and its subsidiaries' effective cost of borrowed funds.

7.5 Distributions Upon a Deemed Liquidation Event; Asset Sale. Subject to Section 7.1(b), unless the holders of (i) Preferred Units representing the Required Series A Consent (including the approval of each of CV II and Merck GHI so long as such party holds Preferred Units) and the Required Series B Consent (including the approval of each of CV II and AIH so long as such party holds Preferred Units), and (ii) a majority of the outstanding Common Units (not including any Common Units issuable upon conversion of the Preferred Units), elect otherwise by written notice sent to the Company prior to the effective date of any Deemed Liquidation Event, the Company shall distribute the proceeds received by the Company in respect of such Deemed Liquidation Event in accordance with Section 10.2(b). Subject to Section 7.1(b), unless the holders of (i) Preferred Units representing the Required Series A Consent (including the approval of each of CV II and Merck GHI so long as such party holds Preferred Units) and the Required Series B Consent (including the approval of each of CV II and AIH so long as such party holds Preferred Units), and (ii) a majority of the outstanding Common Units (not including any Common Units issuable upon conversion of the Preferred Units), elect otherwise by written notice sent to the Company, upon any sale or other transfer of a significant portion of its securities or sale, license and/or other transfer of a significant portion of its assets (which would not be deemed to be a Deemed Liquidation Event), the Company shall promptly distribute all of the Company's Available Cash (after taking into account the proceeds (cash or otherwise) received in respect of any such transaction) to the Members in accordance with Section 7.2.

ARTICLE VIII
Allocations

8.1 Allocations of Profits and Losses. Subject to the other provisions of this Article VIII, the Company's Profit and Loss for any fiscal period shall be allocated among the Members in such a manner that, as of the end of such fiscal period and to the extent possible, the Capital Account of each Member shall be equal to the respective net amount which would be distributed to such Member under this Agreement, determined as if the Company (a) was dissolved, its affairs wound up and its assets sold for cash equal to their Book Value and (b) the net assets of the Company were distributed in accordance with Section 10.2 minus such Member's share of Company Minimum Gain and Member Minimum Gain, computed immediately prior to the hypothetical sale of assets.

8.2 Regulatory and Special Allocations. Notwithstanding the provisions of Section 8.1:

(a) To the extent an adjustment to the adjusted tax basis of any Company asset pursuant to Code Section 734(b) or 743(b) is required to be taken into account in determining Capital Accounts, the amount of such adjustment to the Capital Accounts shall be treated, as provided in Treasury Regulation Section 1.704-1(b)(2)(iv)(*m*), as an item of Profit (if the adjustment increases the basis of the asset) or Loss (if the adjustment decreases such basis) and such Profit or Loss shall be specially allocated to the Members in a manner consistent with the manner in which their Capital Accounts are required to be adjusted pursuant to such Section of the Treasury Regulations.

(b) If there is a net decrease in Company Minimum Gain (determined according to Treasury Regulation Section 1.704-2(d)(1)) during any Taxable Year, each Member shall be specially allocated Profits for such Taxable Year (and, if necessary, subsequent Taxable Years) in an amount equal to such Member's share of the net decrease in Company Minimum Gain, determined in accordance with Treasury Regulation Section 1.704 2(g). The items to be so allocated shall be determined in accordance with Treasury Regulation Section 1.704—2(f)(6) and 1.704 2(j)(2). This paragraph is intended to comply with the minimum gain chargeback requirement in Treasury Regulation Section 1.704—2(f) and shall be interpreted consistently therewith.

(c) Member Nonrecourse Deductions shall be allocated in the manner required by Treasury Regulation Section 1.704-2(i). Except as otherwise provided in Treasury Regulation Section 1.704-2(i)(4), if there is a net decrease in Member Minimum Gain during any Taxable Year, each Member that has a share of such Member Minimum Gain shall be specially allocated Profits for such Taxable Year (and, if necessary, subsequent Taxable Years) in an amount equal to that Member's share of the net decrease in Member Minimum Gain. Items to be allocated pursuant to this paragraph shall be determined in accordance with Treasury Regulation Section 1.704-2(i)(4) and 1.704 2(j)(2). This paragraph is intended to comply with the minimum gain chargeback requirements in Treasury Regulation Section 1.704—2(i)(4) and shall be interpreted consistently therewith.

(d) In the event any Member unexpectedly receives any adjustments, allocations or distributions described in Treasury Regulation Section 1.704-1(b)(2)(ii)(*d*)(*4*), (*5*) or (*6*), Profits shall be specially allocated to such Member in an amount and manner sufficient to eliminate the Adjusted Capital Account Deficit created by such adjustments, allocations or distributions as quickly as possible. This paragraph is intended to comply with the qualified income offset requirement in Treasury Regulation Section 1.704-1(b)(2)(ii)(*d*) and shall be interpreted consistently therewith.

(e) If, as a result of an exercise of a Noncompensatory Option, a Capital Account reallocation is required under Treasury Regulation Section 1.704-1(b)(2)(iv)(s)(3), the Company shall make corrective allocations pursuant to Treasury Regulation Section 1.704-1(b)(4)(x).

(f) Nonrecourse Deductions for any Taxable Year or other period shall be specially allocated among the Members in proportion to their Percentage Interest in the Company.

(g) The allocations set forth in this Section above (the "Regulatory Allocations") are intended to comply with certain requirements of the Treasury Regulations under Code Section 704. Notwithstanding any other provisions of this Article VIII (other than the Regulatory Allocations), the Regulatory Allocations shall be taken into account in allocating Profits and Losses among Members so that, to the extent possible, the net amount of such allocations of Profits and Losses and other items and the Regulatory Allocations to each Member shall be equal to the net amount that would have been allocated to such Member if the Regulatory Allocations had not occurred.

8.3 Curative Allocations. If the Tax Matters Person determines, after consultation with counsel experienced in income tax matters, that the allocation of any item of Company income, gain, loss, deduction or credit is not specified in this Article VIII (an "unallocated item"), or that the allocation of any item of Company income, gain, loss, deduction or credit hereunder is clearly inconsistent with the Members' economic interests in the Company (determined by reference to the general principles of Treasury Regulation Section 1.704-1(b) and the factors set forth in Treasury Regulation Section 1.704-1(b)(3)(ii)) (a "misallocated item"), then the Board may allocate such unallocated items, or reallocate such misallocated items, to reflect such economic interests.

8.4 Tax Allocations.

(a) Subject to Section 8.4(g) below, all income, gains, losses, deductions and credits of the Company shall be allocated, for federal, state and local income tax purposes, among the Members in accordance with the allocation of such income, gains, losses, deductions and credits among the Members for computing their Capital Accounts, except that if any such allocation for tax purposes is not permitted by the Code or other applicable law, the Company's subsequent income, gains, losses, deductions and credits shall be allocated among the Members for tax purposes, to the extent permitted by the Code and other applicable law, so as to reflect as nearly as possible the allocation set forth herein in computing their Capital Accounts. Each item of income, gain, loss, deduction and credit realized by the Company in any taxable year shall be

allocated pro rata to the Members according to the amount of Profit or Loss, as the case may be, allocated to them in such year. Notwithstanding the foregoing, if as a result of the difference in timing of Capital Contributions by the Members to the Company and the contribution, loan or other transfer by the Company to any of its subsidiaries of funds or other property contributed to the Company by such Members, the Company realizes short-term capital gain or both long-term and short-term capital gain for purposes of the Code, then the Tax Matters Person may allocate such short-term capital gain to the Members whose Capital Contributions resulted (directly or indirectly) in the recognition of such short-term capital gain.

(b) Items of Company taxable income, gain, loss and deduction with respect to any property contributed to the capital of the Company shall be allocated among the Members in accordance with Code Section 704(c) and the remedial method of Treasury Regulation Section 1.704-3(d), or such other method elected by the Tax Matters Person with the approval of Members holding (x) Preferred Units representing the Required Series A Consent (including the approval of each of CV II and Merck GHI so long as such party holds Preferred Units) and the Required Series B Consent (including the approval of each of CV II and AIH so long as such party holds Preferred Units), and (y) a majority of the outstanding Common Units (not including any Common Units issuable upon conversion of the Preferred Units), so as to take account of any variation between the adjusted basis of such property to the Company for federal income tax purposes and its Book Value.

(c) If the Book Value of any Company property is adjusted pursuant to Section 6.2(a)(iv), subsequent allocations of items of taxable income, gain, loss and deduction with respect to such property shall take account of any variation between the adjusted basis of such property for federal income tax purposes and its Book Value in the same manner as under Code Section 704(c).

(d) Allocations of tax credit, tax credit recapture, and any items related thereto shall be allocated to the Members according to their interests in such items as determined by the Board taking into account the principles of Treasury Regulation Section 1.704-1(b)(4)(ii).

(e) Allocations pursuant to this Section 8.4 are solely for purposes of federal, state and local taxes and shall not affect, or in any way be taken into account in computing, any Member’s Capital Account or share of Profits, Losses, distributions (other than Tax Advances) or other items pursuant to any provisions of this Agreement.

(f) Solely for the purpose of determining each Member’s share of Company “excess nonrecourse liabilities” pursuant to Treasury Regulation Section 1.752-3(a)(3), each Member’s interest in Company profits is hereby specified to be such Member’s Percentage Interest.

(g) To the extent permitted by the Code or other applicable law, notwithstanding anything contained herein to the contrary, allocations of taxable income realized by the Company as a result of distributions or dividends from (or redemptions of securities held by the Company of) any subsidiary, the proceeds of which are used to fund distributions to Members, shall be made to the Members receiving such distributions in proportion to such distributions.

ARTICLE IX
Elections and Reports

9.1 Generally. The Company will keep appropriate books and records with respect to the Company's business, including all books and records necessary to provide any information, lists and copies of documents required to be provided pursuant to Section 9.3.

9.2 Tax Status. The Members intend that the Company be treated as a partnership for federal, state and local income tax purposes and the Company and each Member shall file all tax returns on the basis consistent therewith.

9.3 Reports. The Company will use reasonable efforts to deliver or cause to be delivered, by April 1 of each year, to each person who was a Member at any time during the previous Taxable Year, all information reasonably necessary for the preparation of such person's United States federal income tax returns and any state, local and foreign income tax returns which such person is required to file as a result of the Company being engaged in a trade or business within such state, local or foreign jurisdiction, including a statement showing such person's share of income, gains, losses, deductions and credits for such year for United States federal income tax purposes (and, if applicable, state, local or foreign income tax purposes).

9.4 Tax Elections. The Tax Matters Person will determine whether to make or revoke any available election (including the election provided under Code Section 754) for federal, state, local and foreign tax purposes. Each Member will upon request supply the information necessary to give proper effect to any such election.

9.5 Tax Controversies. (a) The Company's Chief Executive Officer shall be the "tax matters partner" of the Company within the meaning of Section 6231(a)(7) of the Code, and the "partnership representative" within the meaning of Section 6223(a) of the Code, as amended by the Revised Partnership Audit Procedures, and shall act in a similar capacity under any applicable non-U.S., state or local tax law (such person acting in such capacity, as the "Tax Matters Person"). In addition, if applicable, the Tax Matters Person shall appoint a designated individual through whom the partnership representative will act for all purposes of the Revised Partnership Audit Procedures as described in proposed Treasury Regulation Section 301.6223-1(b). With the consent of the Members holding a Majority in Interest, the Tax Matters Person shall represent the Company in any disputes, controversies or proceedings with the Internal Revenue Service ("IRS") or with any state, local or non-U.S. taxing authority and subject to the provisions of this Section 9.5 is hereby authorized to exercise any and all authority and take any and all actions that it is permitted to take by applicable law when acting in that capacity. All reasonable expenses incurred by the Tax Matters Person while acting in the capacity of tax matters partner shall be paid or reimbursed by the Company; provided, however, that the Tax Matters Person shall not be entitled to a fee for acting as the Tax Matters Person.

(b) The Tax Matters Person shall promptly, after the receipt of any significant written communication from the IRS or any state or local tax authority in any administrative proceeding at the Company level with respect to the determination of any Company item of income, gain, loss, expense, deduction or credit, mail a copy of such communication to each Member (or former Member) potentially affected thereby including, without limitation, for any

tax period subject thereto, any communications under Section 6231(a) of the Code, as amended by the Revised Partnership Audit Procedures. The Tax Matters Person will use its commercially reasonable efforts to keep the other Members informed about significant developments in any U.S. federal, state or local income tax audit of the Company, and about any significant action that it shall take as the Tax Matters Person.

(c) Following a Member's written request, the Tax Matters Person shall use commercially reasonable efforts to promptly furnish to such Member any information and documentation (including receipts or other proofs of payment of taxes) which is in the Tax Matters Person's possession, or which the Tax Matters Person can obtain with the use of commercially reasonable efforts, and which is reasonably required by such Member (x) to comply in a timely manner with any U.S. federal, state or local tax filing or reporting requirements in respect of the Company or (y) to claim any available tax refunds or exemptions in respect of its share of the income of the Company, provided, that such Member shall be required to incur or bear any upfront or other third party or out of pocket cost or expense required in order to obtain any information or documentation requested by such Member.

(d) With the consent of the Members holding a Majority in Interest, and at the Company's expense, the Tax Matters Person shall determine in good faith whether any elections under Sections 6221(b) and 6226(a) of the Code, as amended by the Revised Partnership Audit Procedures, shall be made. The financial burden of any imputed underpayment (as determined under Section 6225 of the Code, as amended by the Revised Partnership Audit Procedures) or other Tax assessment imposed on the Company and associated interest, adjustments to tax and penalties arising from an adjustment that are imposed on the Company shall be borne by the Members and former Members of the Company based on their proportionate interest in the Company during the applicable tax year under review.

(e) The Members agree to take all actions and provide any information reasonably requested by the Company or the Tax Matters Person to comply with the Revised Partnership Audit Procedures, including, where applicable, filing amended returns as provided in Sections 6225 or 6226 of the Code and providing confirmation thereof to the Tax Matters Person.

(f) This Section 9.5 shall apply to any comparable provision of state or local tax law, and shall survive the dissolution or termination of the Company and the withdrawal or other transfer of interests of or by any Member.

ARTICLE X
Dissolution and Liquidation

10.1 Dissolution. The Company shall be dissolved and its affairs wound up only upon the happening of any of the following events:

(a) Subject to Sections 4.9 and 4.10, upon the election to dissolve the Company by action of the Board and Members holding a Majority in Interest; or

(b) The entry of a decree of judicial dissolution under applicable law; provided, that, notwithstanding anything contained herein to the contrary, no Member shall make an application for the dissolution of the Company pursuant to applicable law without the approval of a Majority in Interest.

Dissolution of the Company shall be effective on the day on which the event occurs giving rise to the dissolution, but the Company shall not terminate until the winding up of the Company has been completed, the assets of the Company have been distributed as provided in Section 10.2 and the Certificate shall have been canceled.

10.2 Liquidation.

(a) Liquidator. Upon a liquidation, dissolution or winding up of the Company, the Board, with the approval of all Investor Managers, shall appoint a person or persons (or may designate the Board itself to so act) to act as the "Liquidator," and such person(s) shall act as the Liquidator unless and until a successor Liquidator is appointed as provided in this Section 10.2. The Liquidator will agree not to resign at any time without 30 days' prior written notice to the Board. The Liquidator may be removed at any time, with or without cause, by notice of removal and appointment of a successor Liquidator approved by the Board, with the approval of all Investor Managers. Any successor Liquidator will succeed to all rights, powers and duties of the former Liquidator. The right to appoint a successor or substitute Liquidator in the manner provided in Section 10.2 will be recurring and continuing for so long as the functions and services of the Liquidator are authorized to continue under the provisions of this Agreement, and every reference in this Agreement to the Liquidator will be deemed to refer also to any such successor or substitute Liquidator appointed in the manner provided in this Section 10.2. The Liquidator will receive compensation for its services as the Board may approve plus reimbursement of the Liquidator's out-of-pocket expenses in performing its duties.

(b) Liquidating Actions. The Liquidator will liquidate the assets of the Company and apply and distribute the proceeds of such liquidation, in the following order of priority, unless otherwise required by mandatory provisions of applicable law:

(i) First, to the payment of the Company's debts and obligations to its creditors (including Members), including sales commissions and other expenses incident to any sale of the assets of the Company, but not including any amounts payable under the Transaction Bonus Plan, if applicable, in order of the priority provided by law;

(ii) Second, to the establishment of and additions to such reserves as the Board, with the approval of all Investor Managers, deems necessary or appropriate; and

(iii) Thereafter, the balance of such proceeds shall be distributed to the Members in accordance with Section 7.2, after giving effect to all contributions, distributions and allocations for all periods, including the period during which such Liquidation occurs and taking into account any Transaction Bonus Plan.

The allocations and distributions provided for in this Agreement are intended to result in the Capital Account of each Member immediately prior to the distribution of the Company's assets pursuant to this Section 10.2(b) being equal to the amount distributable to such Member pursuant to this Section 10.2(b).

(c) Distribution in Kind. Notwithstanding the provisions of Section 10.2(b) which require the liquidation of the assets of the Company, but subject to the order of priorities set forth in Section 10.2(b), if upon dissolution of the Company the Board (including with the approval of all Investor Managers) determines that an immediate sale of part or all of the Company's assets would be impractical or could cause undue loss to the Members, the Board (including with the approval of all Investor Managers) may, in its sole discretion, defer the liquidation of any assets except those necessary to satisfy Company liabilities and reserves, and may, in its absolute discretion, distribute to the Members, in lieu of cash, as tenants in common and in accordance with the provisions of Section 10.2(b), undivided interests in such Company assets as the Liquidator deems not suitable for liquidation. Any such distribution in kind will be subject to such conditions relating to the disposition and management of such properties as the Liquidator deems reasonable and equitable and to any agreements governing the operating of such properties at such time. For purposes of any such distribution, the Board will determine the Fair Market Value of any property to be distributed in accordance with any valuation procedure which the Board reasonably deems appropriate.

(d) Reasonable Time for Winding Up. A reasonable time will be allowed for the orderly winding up of the business and affairs of the Company and the liquidation of its assets pursuant to Section 10.2(b) in order to minimize any losses otherwise attendant upon such winding up. Distributions upon liquidation of the Company (or any Member's interest in the Company) and related adjustments will be made by the end of the Fiscal Year of the liquidation (or, if later, within 90 days after the date of such liquidation) or as otherwise permitted by Treasury Regulation Section 1.704-1(b)(2)(ii)(*b*).

(e) Termination. Upon completion of the distribution of the assets of the Company as provided in Section 10.2(b) hereof, the Company shall be terminated and the Liquidator shall cause the cancellation of the Certificate in the State of Delaware and of all qualifications and registrations of the Company as a foreign limited liability company in all applicable jurisdictions and shall take such other actions as may be necessary to terminate the Company.

ARTICLE XI
Transfer of Units

11.1 Restrictions. Each Member acknowledges and agrees that such Member shall not Transfer any Unit(s) except in accordance with the provisions of this Article XI. Any attempted Transfer in violation of the preceding sentence shall be deemed null and void for all purposes, and the Company will not record any such Transfer on its books or treat any purported transferee as the owner of such Unit(s) for any purpose.

11.2 General Restrictions on Transfer.

(a) Notwithstanding anything to the contrary in this Agreement, no transferee of any Unit(s) received pursuant to a Transfer shall become a Member in respect of or be deemed to have any ownership rights in the Unit(s) so Transferred unless the purported transferee is a Member prior to any such Transfer or is admitted as a Member as set forth in Section 11.3.

(b) Following a Transfer of any Unit(s) that is permitted under this Article XI, the transferee of such Unit(s) shall succeed to the Capital Account associated with such Unit(s) and shall receive allocations and distributions under Articles VI, VII, VIII and X in respect of such Unit(s). Notwithstanding the foregoing, Profits, Losses and other items will be allocated between the transferor and the transferee according to Code Section 706.

(c) Any Member who Transfers all of his or its Units (i) shall cease to be a Member upon such Transfer, and (ii) shall no longer possess or have the power to exercise any rights or powers of a Member of the Company.

(d) The Members acknowledge that certain of the Units issued to employees and consultants to the Company are subject to forfeiture to the Company under certain conditions as provided in a Unit Forfeiture or similar agreement between the applicable Member and the Company. No Member shall be permitted to transfer any Units subject to any such forfeiture right until such right lapses.

(e) Without limiting any provision herein set forth, no Member may Transfer (directly or indirectly, including by offering any of its securities, investing in any other Member or otherwise), any securities of the Company to another Member or any Affiliate thereof or any other third party unless such Member provides prior written notice to the Board (including the Investor Managers), unless such Transfer is a permitted transfer as defined for purposes of Section 11.6(d) hereto.

11.3 Procedures for Transfer. Subject in all events to the general restrictions on Transfers contained in this Article XI, no Transfer of Unit(s) may be completed until the prospective transferee is admitted as a Member of the Company by executing and delivering to the Company a written undertaking to be bound by the terms and conditions of this Agreement in a form acceptable to the Board. Upon the amendment of the Members Schedule by the Company, such prospective transferee shall be admitted as a Member and deemed listed as such on the books and records of the Company and thereupon the Company shall reissue the applicable Units in the name of such prospective transferee. The provisions of this Section 11.3 shall not apply with respect to the Transfer of any Unit(s) to a transferee that is a Member immediately prior to such Transfer.

11.4 Legend. Any certificates or instruments representing the Units will bear the following legend:

"THE TRANSFER OF THE SECURITIES REPRESENTED BY THIS CERTIFICATE OR INSTRUMENT IS SUBJECT TO THE CONDITIONS SPECIFIED IN A LIMITED LIABILITY COMPANY AGREEMENT AMONG THE ISSUER AND ITS MEMBERS. A COPY OF SUCH LIMITED LIABILITY COMPANY AGREEMENT AS IN EFFECT FROM TIME TO TIME WILL BE FURNISHED WITHOUT CHARGE BY THE ISSUER TO THE HOLDER HEREOF UPON WRITTEN REQUEST."

11.5 Limitations.

Notwithstanding anything to the contrary in this Agreement, unless affirmatively waived in writing by the Board (including a majority of the disinterested Managers), no Unit may be Transferred and the Company may not issue any Unit unless (i) such Transfer or issuance, as the case may be, shall not affect the Company's existence or qualification as a limited liability company under the state of its organization, (ii) such Transfer or issuance, as the case may be, shall not cause the Company to be classified as other than a partnership for United States federal income tax purposes (unless the Company has elected to be taxed as a corporation for federal income tax purposes), and (iii) such Transfer or issuance, as the case may be, shall be to a person or entity, or any of their Affiliates, who is not a competitor to the Company or an entity in which the Company holds a material interest, as reasonably determined by the Company, except this clause (iii) shall not apply to a Transfer in connection with a Healthcare Trigger Event by Merck GHI.

11.6 Additional Transfer Restrictions.

(a) General. Subject to the other provisions of this Article XI, a Member may Transfer Units only if such Member has complied with the terms and requirements of Section 11.6(b), 11.6(c), 11.6(d) and 11.6(e), as applicable.

(b) Right of First Refusal. In the event that a Member (the "Transferring Member") proposes to sell or otherwise Transfer (other than pursuant to a Public Offering or pursuant to an Approved Company Sale) any Units pursuant to a bona fide offer from a third party (the "Proposed Transferee"), the Transferring Member must first give the Major Holders (the "Non-Transferring Major Holders") written notice (the "ROFR Notice") of the number of Units to be transferred, the price, terms and conditions of the proposed sale, including the identity of the Proposed Transferee, and a copy of any written proposal, term sheet, letter of intent or other agreement relating to the proposed sale. Within ten (10) days after the receipt of the ROFR Notice, the Non-Transferring Major Holders (or their assignees) may elect to purchase (as among themselves, pro rata in accordance with their respective Percentage Interests or in such other proportions as they shall agree; together with a pro rata right of oversubscription for all Major Holders who elect to purchase their full pro rata amount), and the Transferring Member agrees to sell to the Non-Transferring Major Holders (and their assignees), at the price and on the terms specified in the ROFR Notice, all or any portion of the Units as such Non-Transferring Major Holders (or their assignees) shall request (after taking into account such oversubscription rights). In the event the Non-Transferring Major Holders (or their assignees) elect to purchase all or part of the Units proposed to be transferred, the closing of such purchase will take place five (5) days after the expiration of such ten (10) day period or such other date as the parties shall agree. To the extent that the terms of payment set forth in the ROFR Notice consist of property other than cash against delivery, the Non-Transferring Major Holders (or their assignees) may substitute cash of equivalent value in lieu thereof. To the extent the Non-Transferring Major Holders (or their assignees) do not exercise in full this right of first refusal within the twenty (20) day period specified above (collectively, the "ROFR Notice Period"), the Transferring Member will have sixty (60) days thereafter to sell the Units not elected to be purchased by the Non-Transferring Major Holders (and their assignees) at the price and upon the terms and conditions no more favorable (in any material respect) to the purchasers of such Units than specified in the ROFR Notice. In the event the Transferring Member has not sold such Units within such sixty (60) day period, the Transferring Member may not thereafter sell any Units without first offering such Units to the Major Holders in the manner provided in this Section 11.6(b). The restrictions set forth in this Section 11.6(b) shall not apply in the following cases: (i) any Member may sell or transfer Units to the Company pursuant to a repurchase or similar right (including any transfer upon a forfeiture of Units pursuant to any subscription or similar agreement pursuant to which such shares were acquired); and (ii) any Member may sell or transfer any Units to a Permitted Transferee (as defined below) subject to Sections 11.3 and 11.5.

(c) Right of Co-Sale. To the extent that a Non-Transferring Major Holder does not elect to purchase all or part of the Units proposed to be transferred by the Transferring Member pursuant to subsection 11.6(b), then the Non-Transferring Major Holder shall have the right to participate in the proposed sale of Units to the Proposed Transferee on the same terms and conditions as specified in the ROFR Notice. The Non-Transferring Major Holder shall provide notice to the Transferring Member within ten (10) days after the receipt of the ROFR Notice indicating the number of Units that the Non-Transferring Major Holder wishes to sell under his, her or its right to participate. To the extent one or more of the Non-Transferring Major Holders exercises such right of participation in accordance with the terms and conditions of this Section 11.6(c), the number of Units that the Transferring Member may sell shall be correspondingly reduced. Each Non-Transferring Major Holder (a "Selling Major Holder") may sell all or any part of that number of Units equal to the product obtained by multiplying (i) the

aggregate number of Units covered by the ROFR Notice that have not been subscribed for pursuant to Section 11.6(b) by (ii) a fraction, the numerator of which is the number of Units owned by the Selling Major Holders on the date of the ROFR Notice and the denominator of which the total number of Units owned by all of the Selling Major Holders and the Transferring Member on the date of the ROFR Notice.

(d) Permitted Transfers; Healthcare Trigger Event. The restrictions contained in Sections 11.6(b) and Section 11.6(c) shall not apply with respect to any Transfer of Units by any Member (A) in the case of a Member who is an individual, pursuant to applicable laws of descent and distribution or, if such Transfer is made for bona fide estate planning purposes (which bona fide estate planning purposes, if requested by the Board, shall be verified by a legal opinion from counsel experienced in such matters), then to any Immediate Family Member of such Member, any entity controlled or under common control with such Member or a trust or similar vehicle established by such Member, (B) in the case of a non-individual Member, to its Affiliates or current or former stockholders, partners, including limited partners, or members; provided, in each case, that any such transferee shall have complied with the requirements of Section 11.3 and 11.5, (C) in the case of Merck GHI, upon a HealthCare Trigger Event, as a condition precedent to such Healthcare Trigger Event and subject in all cases to applicable law, Merck GHI shall have the right, in its sole discretion, to transfer its Series A Preferred Units to a third party reasonably acceptable to the Company without the application of Sections 11.6(b) or 11.6(c), or (D) as described in Item 5 to Section 2.11(c) of the Disclosure Schedule to the A&R Series B Purchase Agreement. The Company will fully cooperate with such sale, including with respect to due diligence by any potential purchaser and the execution of any reasonably required documents and obtaining of reasonably necessary consents and waivers by existing Members. The transferees permitted by this Section 11.6(d) are referred to herein as "Permitted Transferees".

(e) Approved Company Sale.

(i) If (A) the Board (if required by applicable law) and (B) the holders of (1) a Majority in Interest and (2) Members holding Preferred Units representing the Required Series A Consent (including the approval of each of CV II and Merck GHI so long as such party holds Preferred Units) and the Required Series B Consent (including the approval of each of CV II and AIH so long as such party holds Preferred Units) (the "Selling Members"), approve a sale of all or substantially all of the Company's assets determined on a consolidated basis or a sale of all (or a lesser percentage, if necessary, as determined by the Selling Members for accounting, tax or other reasons) of the Company's outstanding Units or equivalents (in either case, whether by merger, recapitalization, consolidation, reorganization, combination or otherwise) or any other transaction which has the same effect as any of the foregoing, to a third party or parties not affiliated with the Company or any Member (each such sale or transaction, an "Approved Company Sale"), then each holder of Units will vote for, consent to and raise no objections against the Approved Company Sale or the process. If the Approved Company Sale is structured as a merger or consolidation, then each holder of Units shall waive any dissenter' rights, appraisal rights or similar rights in connection with such merger or consolidation. If the Approved Company Sale is structured as a Transfer of Units, then each holder of Units shall agree to sell all of his or its Units and rights to acquire Units on the same terms and conditions, in all material respects, as applicable to the respective types of Units to be Transferred in such

Approved Company Sale. Each holder of Units shall take all necessary or desirable actions in connection with the consummation of an Approved Company Sale as requested by the Board, including, without limitation, executing the applicable purchase agreement. If the Board, the Company or any of the holders of Units enter into any negotiation or transaction for which Rule 506 (or any similar rule then in effect) promulgated by the Securities and Exchange Commission may be available with respect to such negotiation or transaction (including a merger, consolidation or other reorganization), each holder of Units who is not an "accredited investor," as that term is defined in Regulation D as promulgated under the Securities Act, will, at the request of the Company, appoint either a purchaser representative (as such term is defined in Rule 501 under the Securities Act) designated by the Company, in which event the Company will pay the fees of such purchaser representative, or another purchaser representative (reasonably acceptable to the Company), in which event such holder will be responsible for the fees of the purchaser representative so appointed.

(ii) Notwithstanding the foregoing, no Member will be required to comply with Section 11.6(e)(i) above in connection with any proposed Approved Company Sale (the "Proposed Sale") unless:

(A) the liability for indemnification, if any, of such Member in the Proposed Sale and for the inaccuracy of any representations and warranties made by the Company or its Members in connection with such Proposed Sale, is several and not joint with any other Person (except to the extent that funds may be paid out of an escrow established to cover breach of representations, warranties and covenants of the Company as well as breach by any Member of any of identical representations, warranties and covenants provided by all Members), and is pro rata in proportion to, and does not exceed, the amount of consideration paid to such Member in connection with such Proposed Sale; and

(B) upon the consummation of the Proposed Sale, (i) each holder of each class or series of the Company's Units will receive the same form of consideration for their Units of such class or series as is received by other holders in respect of their Units of such same class or series, (ii) each holder of a series of Preferred Units will receive the same amount of consideration per share of such series of Preferred Units as is received by other holders in respect of their shares of such same series, (iii) each holder of Common Units will receive the same amount of consideration per Common Unit as is received by other holders in respect of their Common Units, and (iv) unless Members holding Preferred Units representing the Required Series A Consent (including the approval of each of CV II and Merck GHI so long as such party holds Preferred Units) and the Required Series B Consent (including the approval of each of CV II and AIH so long as such party holds Preferred Units) elect to receive a lesser amount by written notice given to the Company at least ten (10) days prior to the effective date of any such Proposed Sale, the aggregate consideration receivable by all holders of the Preferred Units and Common Units shall be allocated among the holders of Preferred Units and Common Units on the basis of the relative liquidation preferences to which the holders of the Preferred Units and the holders of Common Units are entitled in a Deemed Liquidation Event (assuming for this purpose that the Proposed Sale is a Deemed Liquidation Event) in accordance with Section 10.2(b).

11.7 Initial Public Offering; Conversion to C Corporation.

(a) If at any time (A) the Board and (B) the holders of (1) a Majority in Interest and (2) subject to Section 11.7(b), Preferred Units representing the Required Series A Consent (including the approval of each of CV II and Merck GHI so long as such party holds Preferred Units) and the Required Series B Consent (including the approval of each of CV II and AIH so long as such party holds Preferred Units), desire to cause (i) a transfer of all or a substantial portion of (x) the assets of the Company or any of its subsidiaries or (y) the Units, to a newly organized corporation or other business entity ("Newco"), (ii) a merger or consolidation of the Company or any of its subsidiaries into or with a Newco as provided under Section 18-209 of the Delaware Act or otherwise, (iii) a conversion of the Company to a corporation pursuant to Section 18-214 of the Delaware Act or otherwise, (iv) another restructuring of all or substantially all of the assets or Units of the Company into a Newco, including by way of the conversion of the Company into a Delaware corporation (any such corporation, also "Newco"), in any case in anticipation of or otherwise in connection with a registered initial public offering of securities of a Newco (an "Initial Public Offering") or for any other bona fide business reason, each Member shall take such steps to effect such transfer, merger, consolidation, distribution or other restructuring as may be requested by the Board, including, without limitation, transferring or tendering such Member's Units to a Newco in exchange or consideration for shares of capital stock or other equity interests of Newco, determined in accordance with the valuation procedures set forth in Section 11.7(b).

(b) In connection with a transaction described in Section 11.7(a) (a "Corporate Conversion"), (1) the Units (including Preferred Units) shall be exchanged, converted into or redeemed for shares with substantially equivalent economic, governance, priority and other rights and privileges as in effect immediately prior to such Corporate Conversion (including without limitation board size and composition and voting and approval rights and liquidation preferences), and except as otherwise approved by the Board, (2) each holder of outstanding Units issued as "profits interest" (a "PI Holder") shall be converted or exchanged for (x) shares of common stock of Newco in an amount equal to the Capital Account balance of such PI Holder associated with such Units (after taking into account the adjustment to Capital Accounts to reflect Book Value pursuant to Section 6.2(a)(iv)) divided by the fair market value of one share of common stock (the "Per Share FMV") of Newco (such number of shares being referred to herein as the "New Common Shares"), and (y) for each PI Holder who at such time is an employee or active consultant to the Company, a stock option grant for a number of shares of common stock of Newco equal to the total number of outstanding Units issued as "profits interest" then held by such PI Holder minus the New Common Shares (such number subject to an appropriate adjustment for any stock split, stock combination or similar event in connection with the Corporate Conversion), with an exercise price per common share equal to the Per Share FMV (and with all such securities subject to identical vesting and similar restrictions). In connection with a Corporate Conversion, the Board shall cause Newco to enter into such agreements and adopt a certificate of incorporation and bylaws as are necessary to provide the Members with rights with respect to such corporation which are substantially similar to the rights of such Members pursuant to this Agreement as mutually agreed upon by the Company, CV II,

Merck GHI and AIH. Notwithstanding anything herein to the contrary, including, without limitation, Sections 4.9 and 4.10 and Section 11.7(a)((B)(2), neither the Required Series A Consent nor the Required Series B Consent, nor the consent of either CV II, Merck GHI or AIH, shall be required in connection with any Corporate Conversion that is in anticipation of (and conditioned upon) a Qualified Public Offering and that satisfies the conditions of this Section 11.7(b) (including the preceding sentence).

(c) Each Member hereby agrees (i) not to effect any sale or distribution of any Common Units (or any equity securities issued in exchange for, or distributed with respect to, Common Units, including any equity securities of Newco) or any securities convertible into or exchangeable or exercisable for Common Units (or any equity securities issued in exchange for, or distributed with respect to, Common Units, including any equity securities of Newco), during the seven days prior to and the 180-day period beginning on the effective date of an Initial Public Offering (except as part of such Initial Public Offering, if otherwise permitted), unless the underwriters managing such Initial Public Offering otherwise agree (which agreement shall be equally applicable to all Members) and (ii) to execute and deliver any reasonable agreement which is consistent with the provisions of this Section and which may be required by the underwriters managing such Initial Public Offering.

(d) Each Member hereby makes, constitutes and appoints the Company, with full power of substitution and resubstitution, its true and lawful attorney, for it and in its name, place and stead and for its use and benefit, to act as its proxy in respect of any vote or approval of Members required to give effect to this Section, including any vote or approval required under Section 18-209 of the Delaware Act. The proxy granted pursuant to this Section is a special proxy coupled with an interest and is irrevocable.

ARTICLE XII
Miscellaneous Provisions

12.1 Notices.

(a) All notices, requests and other communications hereunder must be in writing and will be deemed to have been duly given only if delivered personally, by facsimile (against facsimile confirmation) or electronic mail transmission or mailed by a recognized overnight courier prepaid, to (i) any Member, at such Member's last known address as set forth on the Company's books and records, and (ii) the Company, to the Company's Chief Executive Officer or Secretary at the Company's principal place of business (or in any case to such other address as the addressee may from time to time designate in writing to the sender).

(b) All such notices, requests and other communications will (i) if delivered personally to the address as provide in Section 12.1(a) be deemed given upon delivery, (ii) if delivered by facsimile or electronic mail transmission to the facsimile number or email address as provided for in Section 12.1(a), be deemed given upon facsimile confirmation or delivery of such email (provided, in the case of electronic mail, no bounce back error message is received) and (iii) if delivered by overnight courier to the address as provided in Section 12.1(a), be deemed given on the earlier of the first business day following the date sent by such overnight courier or upon receipt (in each case regardless of whether such notice, request or other communication is received by any other person to whom a copy of such notice is to be delivered pursuant to this Section 12.1).

12.2 Governing Law. All issues and questions concerning the application, construction, validity, interpretation and enforcement of this Agreement and the exhibits and schedules to this Agreement shall be governed by, and construed in accordance with, the laws of the State of Delaware, and specifically the Delaware Act, without giving effect to any choice of law or conflict of law rules or provisions (whether of the State of Delaware or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the State of Delaware.

12.3 No Action for Partition. No Member shall have any right to maintain any action for partition with respect to the property of the Company.

12.4 Headings and Sections. The headings in this Agreement are inserted for convenience only and are in no way intended to describe, interpret, define, or limit the scope, extent or intent of this Agreement or any provision of this Agreement. Unless the context requires otherwise, all references in this Agreement to Sections, Articles, Exhibits or Schedules shall be deemed to mean and refer to Sections, Articles, Exhibits or Schedules of or to this Agreement.

12.5 Amendments. (a) Except as otherwise provided in this Section 12.5 and subject to Sections 4.9 and 4.10, this Agreement may be amended, in whole or in part, only through a written amendment executed by (i) the Board, (ii) a Majority in Interest and (iii) the holders of Preferred Units representing the Required Series A Consent (including the approval of each of CV II and Merck GHI so long as such party holds Preferred Units) and the Required Series B Consent (including the approval of each of CV II and AIH so long as such party holds Preferred Units); provided that (x) in connection with a Qualified Future Financing, the Required Series A Consent and the Required Series B Consent for purposes of the foregoing clause (iii) shall only require the consent of the holders of a majority of the total number of outstanding Preferred Units of each class of Preferred Units (voting as separate classes) (and, for the sake of clarity, shall not require the prior approval of Merck GHI, CV II or AIH) solely to create the securities (and associated rights and obligations) to be issued in connection therewith, and (y) neither the Required Series A Consent nor the Required Series B Consent (nor the specific approval of either CV II, Merck GHI or AIH) shall be required for a Corporate Conversion that is in anticipation of (and conditioned upon) a Qualified Public Offering and that satisfies the conditions of Section 11.7(b). Each Member shall be promptly notified of any amendment to this Agreement made pursuant to this Section.

(b) An amendment to any provision of this Agreement that calls for a higher level of approval of the Members or the approval of certain specified Members shall, in addition to the execution percentage set forth in Section 12.5(a), require the same form of approval as is set forth in such provision. Any amendment to this Section 12.5(b) or 12.5(c) shall require the unanimous consent of the Members.

(c) Notwithstanding anything to the contrary contained in this Section 12.5, there shall be no amendment (i) to Section 3.1(c)(i), 3.1(c)(v) or 3.1(d) of this Agreement without the vote or written consent of a majority of the Units held by the Founding Investors and their Immediate Family Members, (ii) to Section 3.1(c)(ii), 3.1(c)(v), 3.1(d), 3.1(i), 3.6. 11.5 (with respect to a Healthcare Trigger Event) or 11.6(d) (with respect to a Healthcare Trigger Event) of this Agreement, or any specific right granted to Merck GHI hereunder, without the vote or written consent of Merck GHI; (iii) to Section 3.1(c)(iii), 3.1(c)(v), 3.1(d), 3.1(i) or 3.6 of this Agreement, or any specific right granted to CV II hereunder, without the vote or written consent of CV II; or (iv) to Section 3.1(c)(iv), 3.1(d), 3.1(i) or 3.6 of this Agreement, or any specific right granted to AIH hereunder, without the vote or written consent of AIH.

(d) Notwithstanding anything to the contrary contained in this Section 12.5, there shall be no amendment to this Agreement that (i) increases a Member's obligation to make capital contributions to the Company, unless the amendment is consented to by such Member, or (ii) imposes personal liability upon a Member for any debts or obligations of the Company, unless the amendment is consented to by such Member.

(e) Notwithstanding the foregoing provisions of this Section 12.5, the Board (including at least two Investor Managers) may, without the consent of any Members, amend this Agreement to (i) reflect changes validly made in the membership of the Company and the Capital Contributions of the Members; (ii) reflect a change in the name of the Company; (iii) make a change that is necessary or, in the opinion of the Board, advisable to qualify the Company as a partnership for tax purposes or an entity in which the Members have limited liability under the laws of any state; (iv) subject to Section 12.5(d), cure any ambiguity, correct or supplement any provision in this Agreement that would be inconsistent with any other provision in this Agreement, or make any other provision with respect to matters or questions arising under this Agreement that will not be inconsistent with the provisions of this Agreement; (v) make a change in any provision of this Agreement that requires any action to be taken by or on behalf of the Board or the Company pursuant to the requirements of applicable law if the provisions of applicable law are amended, modified or revoked so that the taking of such action is no longer required; (vi) prevent the Company or the Board from in any manner being (A) deemed an "investment company" subject to the provisions of the Investment Company Act, (B) treated as a "publicly traded partnership" for purposes of Code Section 7704 or (C) subject to federal income tax as an association taxable as a corporation; (vii) cause the Company to elect to convert the Company into a "Section 3(c)(7)" fund under the Investment Company Act; or (viii) make any other amendments similar to the foregoing. A Member's right to object to an amendment pursuant to Section 12.5(e)(iv) on the grounds that such amendment is materially adverse to such Member shall expire at the close of business on the 30th day following notice to such Member of such amendment.

12.6 Number and Gender. Where the context so indicates, the masculine shall include the feminine, the neuter shall include the masculine and feminine, and the singular shall include the plural.

12.7 Binding Effect. Except as otherwise provided to the contrary in this Agreement, this Agreement shall be binding upon and inure to the benefit of the Members, their distributees, heirs, legal representatives, executors, administrators, successors and permitted assigns.

12.8 Counterparts; Facsimile. This Agreement may be executed in multiple counterparts including, but not limited to, transmittal via facsimile or PDF, each of which shall be deemed to be an original and shall be binding upon the Member who executed the same, but all of such counterparts shall constitute the same agreement.

12.9 Severability. Whenever possible, each provision of this Agreement shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be prohibited by or invalid under applicable law, such provision shall be ineffective only to the extent of such prohibition or invalidity, without invalidating the remainder of this Agreement.

12.10 Remedies. Each of the parties to this Agreement shall be entitled to enforce its rights under this Agreement specifically, to recover damages and costs (including reasonable attorney's fees) caused by any breach of any provision of this Agreement and to exercise all other rights existing in its favor. The Members agree and acknowledge that money damages may not be an adequate remedy for any breach of the provisions of this Agreement and that any party may in its sole discretion apply to any court of law or equity of competent jurisdiction (without posting any bond or deposit) for specific performance and/or other injunctive relief in order to enforce or prevent any violations of the provisions of this Agreement.

12.11 Business Days. If any time period for giving notice or taking action under this Agreement expires on a day which is a Saturday, Sunday or holiday in the state in which the Company's chief executive office is located, the time period shall be automatically extended to the business day immediately following such Saturday, Sunday or holiday.

12.12 Waiver of Jury Trial. EACH PARTY TO THIS AGREEMENT HEREBY WAIVES, TO THE EXTENT PERMITTED BY APPLICABLE LAW, TRIAL BY JURY IN ANY LITIGATION IN ANY COURT WITH RESPECT TO, IN CONNECTION WITH, OR ARISING OUT OF THIS AGREEMENT OR THE VALIDITY, PROTECTION, INTERPRETATION, COLLECTION OR ENFORCEMENT THEREOF.

12.13 No Strict Construction. The parties to this Agreement have participated jointly in the negotiation and drafting of this Agreement. In the event an ambiguity or question of intent or interpretation arises, this Agreement shall be construed as if drafted jointly by the parties to this Agreement, and no presumption or burden of proof shall arise favoring or disfavoring any party by virtue of the authorship of any of the provisions of this Agreement.

12.14 Entire Agreement. Except as otherwise expressly set forth in this Agreement, this Agreement and the other agreements referred to in this Agreement embody the complete agreement and understanding among the parties to this Agreement with respect to the subject matter of this Agreement and supersedes and preempts any prior understandings, agreements or representations by or among the parties, written or oral, which may have related to the subject matter of this Agreement in any way.

12.15 Parties in Interest. Nothing herein shall be construed to be to the benefit of or enforceable by any third party including, but not limited to, any creditor of the Company.

12.16 Arbitration Except as specifically provided herein, any dispute or controversy arising under or in connection with this Agreement shall be settled exclusively by arbitration, conducted before a single arbitrator (to be mutually agreed upon) in the State of New Jersey, in accordance with the rules of the American Arbitration Association then in effect. If the parties cannot agree on a single arbitrator, each party shall appoint one arbitrator who shall then jointly appoint a single arbitrator. Judgment shall be final and may be entered on the arbitrator's award in any court having jurisdiction. The arbitrator shall have the authority to allocate between the parties the expense of any such arbitration based on his determination of the relative fault, if any, of the parties. The parties may enforce any final determination in any state or federal court having jurisdiction over the dispute. For the purpose of any action or proceeding instituted with respect to any final determination, the parties hereby irrevocably submits to the jurisdiction of such courts, irrevocably consents to the service of process by registered mail or personal service and hereby irrevocably waives, to the fullest extent permitted by law, any objection which he may have or hereafter have as to personal jurisdiction, the laying of the venue of any such action or proceeding brought in any such court and any claim that any such action or proceeding brought in any court has been brought in an inconvenient form.

* * * *

IN WITNESS WHEREOF, the undersigned Members consisting the Members required under Section 12.5 of the Second A&R Agreement have executed this Third Amended and Restated Limited Liability Company Agreement of ElectroCore, LLC as of the date first written above.

/s/ Joseph P. Errico
Joseph P. Errico

/s/ Dr. Thomas Errico
Dr. Thomas Errico

The Thomas J. Errico 2010 Family Trust

By: /s/ Joseph P. Errico
Name: Joseph P. Errico
Title: Trustee

/s/ Kathryn Theofilos
Kathryn Theofilos

Core Ventures 2010, LLC

By: /s/ Joseph P. Errico
Name: Joseph P. Errico
Title: Manager

2010 Core Investment Partners, LLC

By: /s/ Joseph P. Errico
Name: Joseph P. Errico
Title: Manager

NeuroCore Investment Partners, LLC

By: /s/ Joseph P. Errico
Name: Joseph P. Errico
Title: Manager

IC-4, LLC

By: /s/ Joseph P. Errico
Name: Joseph P. Errico
Title: Manager

IC-2, LLC

By: /s/ Joseph P. Errico
Name: Joseph P. Errico
Title: Manager

IC-1, LLC

By: /s/ Joseph P. Errico
Name: Joseph P. Errico
Title: Manager

/s/ Steve Mendez
Steve Mendez

/s/ Francis Amato
Francis Amato

/s/ Glenn Vraniak
Glenn Vraniak

Paulson Electrocore Investments LLC

By: /s/ Starla Goff
Starla Goff, CEO

Paulson Investment Company

By: /s/ Mark Finckle
Name: Mark Finckle
Title: Head of Investment Banking

Merck Global Health Innovation Fund, LLC

By: /s/ William Taranto
Name: William Taranto
Title: Managing Director

Core Ventures II, LLC

By: /s/ Joseph P. Errico
Name: Joseph P. Errico
Title: Managing Director

/s/ James L. L. Tullis
James L. L. Tullis

Tullis Opportunity Fund II, LP
By: its General Partner, Tullis Opportunity Fund II, LLC

By: /s/ James L.L. Tullis
Name: James L.L. Tullis
Title: Manager

ECNG, LLC

By: /s/ JP Errico
Name: JP Errico
Title: Manager

AIH-Electro, LLC

By:
Name:
Title:

Vinik Family Foundation

By:
Name:
Title:

Schedule A

Officers of ElectroCore , LLC
(as of the date hereof)

Francis R. Amato	Chief Executive Officer
Joseph P. Errico	Chief Science and Strategy Officer
Glenn Vraniak	Chief Financial Officer
Steve Mendez	Vice President and Chief Technical Officer
Dan Duhart	Global Vice President, Sales and Marketing
Bruce Simon	Vice President, Research
Eric Liebler	Vice President, Scientific, Medical and Government Affairs
Mike Romaniw	Vice President, Quality Assurance

Schedule B

Board of Managers
(as of the date hereof)

Managers Designated by the Founding Investors

Joseph P. Errico
Dr. Thomas J. Errico
Dr. Peter Staats

Manager Designated by Merck GHI

David Rubin

Manager Designated by CV II

Nicholas Colucci

Manager Designated by AIH

Jeffrey Vinik

Independent Managers

Frank Amato
James L.L. Tullis
Trevor Moody (mutually designated by Merck GHI and CV II)

Exhibit 10.1

INVESTORS' RIGHTS AGREEMENT

THIS INVESTORS' RIGHTS AGREEMENT is made as of the 28th day of March, 2013, by and among ElectroCore, LLC, a Delaware limited liability company (the "**Company**"), each of the investors listed on Schedule A hereto, each of which is referred to in this Agreement as an "**Investor"** each of the holders of Common Units listed on Schedule B hereto (each of whom is referred to herein as a "**Key Holder**"), and any additional persons that become a party to this Agreement herewith.

RECITALS

WHEREAS, the Company and the Investors are parties to the Series A Preferred Unit Purchase Agreement of even date herewith (the "**Purchase Agreement**"); and

WHEREAS, in order to induce the Company to enter into the Purchase Agreement and to induce the Investors to invest funds in the Company pursuant to the Purchase Agreement, the Investors and the Company hereby agree that this Agreement shall govern the rights of the Investors to cause the Company to register the Common Units issuable to the Investors, to receive certain information from the Company, and to participate in future equity offerings by the Company, and shall govern certain other matters as set forth in this Agreement.

NOW, THEREFORE, the parties hereby agree as follows:

1. Definitions. For purposes of this Agreement:

1.1 "**Affiliate**" means, with respect to any specified Person, any other Person who, directly or indirectly, controls, is controlled by, or is under common control with such Person, including without limitation any general partner, managing member, officer or director of such Person or any venture capital fund now or hereafter existing that is controlled by one or more general partners or managing members of, or shares the same management company with, such Person.

1.2 "**Common Units**" means the common units of the Company (or Common Stock of the Company if the Company is converted or otherwise becomes a corporation) with the rights, privileges, preferences and restrictions set forth in the Restated Operating Agreement.

1.3 "**Damages**" means any loss, damage, claim or liability (joint or several) to which a party hereto may become subject under the Securities Act, the Exchange Act, or other federal or state law, insofar as such loss, damage, claim or liability (or any action in respect thereof) arises out of or is based upon (i) any untrue statement or alleged untrue statement of a material fact contained in any registration statement of the Company, including any preliminary prospectus or final prospectus contained therein or any amendments or supplements thereto; (ii) an omission or alleged omission to state therein a material fact required to be stated therein, or necessary to make the statements therein not misleading; or (iii) any violation or alleged violation by the indemnifying party (or any of its agents or Affiliates) of the Securities Act, the Exchange Act, any state securities law, or any rule or regulation promulgated under the Securities Act, the Exchange Act, or any state securities law.

1.4 "**Derivative Securities**" means any securities or rights convertible into, or exercisable or exchangeable for (in each case, directly or indirectly)**,** Common Units, including options and warrants.

1.5 "**Exchange Act**" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

1.6 "**Excluded Registration**" means (i) a registration relating-to the sale of securities to employees of the Company or a subsidiary pursuant to a stock or unit option, stock or unit purchase, or similar plan; (ii) a registration relating to an SEC Rule 145 transaction; (iii) a registration on any form that does not include substantially the same information as would be required to be included in a registration statement covering the sale of the Registrable Securities; or (iv) a registration in which the only Common Units being registered is Common Units issuable upon conversion of debt securities that are also being registered.

1.7 "**Finance Committee**" means the Finance Committee of the Company's Board of Managers (the "**Board**") constituted and operating in accordance with the Restated Operating Agreement.

1.8 "**Form S-1**" means such form under the Securities Act as in effect on the date hereof or any successor registration form under the Securities Act subsequently adopted by the SEC.

1.9 "**Form S-3**" means such form under the Securities Act as in effect on the date hereof or any registration form under the Securities Act subsequently adopted by the SEC that permits incorporation of substantial information by reference to other documents filed by the Company with the SEC.

1.10 "**GAAP**" means generally accepted accounting principles in the United States.

1.11 "**Holder**" means any Investor who holds Registrable Securities and who is a party to this Agreement; provided that any Investor who becomes a Defaulting Purchaser under the Purchase Agreement shall immediately cease to be a Holder hereunder, except for purposes of Section 2.11 (Market Stand Off Agreement) and 2.12 (Restrictions on Transfer); provided further than for purposes of Section 2.2 (and other associated Sections to the extent they govern procedures related to Section 2.2), Holders shall be deemed to include the Key Holders.

1.12 "**Immediate Family Member**" means a child, stepchild, grandchild, parent, stepparent, grandparent, spouse, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, including adoptive relationships, of a natural person referred to herein.

1.13 "**Initiating Holders**" means, collectively, Holders who properly initiate a registration request under this Agreement.

1.14 "**Investor**" shall have the meaning set forth in the preamble to this Agreement; provided that any Investor who becomes a Defaulting Purchaser under the Purchase Agreement shall immediately cease to be an Investor hereunder, except for purposes of Section 3.4 (Confidentiality).

1.15 "**IPO**" means the Company's first underwritten public offering of its Common Units under the Securities Act.

1.16 "**Key Holder Registrable Securities**" means (i) all Common Units held by the Key Holders, and (ii) any Common Unit issued as (or issuable upon the conversion or exercise of any warrant, right, or other security that is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of such units.

1.17 "**New Securities**" means, collectively, equity securities of the Company, whether or not currently authorized, as well as rights, options, or warrants to purchase such equity securities, or securities of any type whatsoever that are, or may become, convertible or exchangeable into or exercisable for such equity securities.

1.18 "**Person**" means any individual, corporation, partnership, trust, limited liability company, association or other entity.

1.19 "**Registrable Securities**" means (i) the Units issuable or issued upon conversion of the Series A Preferred Units, excluding any Common Units issued upon conversion of the Series A Preferred Units as result of any Investor becoming a Defaulting Purchaser under the Purchase Agreement; (ii) any Common Units, or any Common Units issued or issuable (directly or indirectly) upon conversion and/or exercise of any other securities of the Company**,** acquired by the Investors after the date hereof; (iii) the Key Holder Registrable Securities; and (iv) any Common Units issued as (or issuable upon the conversion or exercise of any warrant, right, or other security that is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of, the units referenced in clauses (i) and (ii) above; excluding for purposes of Section 2 any units for which registration rights have terminated pursuant to Subsection 2.13 of this Agreement.

1.20 "**Registrable Securities then outstanding**" means the number of units determined by adding the number of outstanding Common Units that are Registrable Securities and the number of Common Units issuable (directly or indirectly) pursuant to then exercisable and/or convertible securities that are Registrable Securities.

1.21 "**Restated Operating Agreement**" means the Amended and Restated Limited Liability Company Operating Agreement of the Company dated as of March , 2013, as such agreement may be further amended and/or restated from time to time.

1.22 "**Restricted Securities**" means the securities of the Company required to bear the legend set forth in Subsection 2.12(b) hereof.

1.23 "**SEC**" means the Securities and Exchange Commission.

1.24 "**SEC Rule 144**" means Rule 144 promulgated by the SEC under the Securities Act.

1.25 "**SEC Rule 145**" means Rule 145 promulgated by the SEC under the Securities Act.

1.26 "**Securities Act**" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

1.27 "**Selling Expenses**" means all underwriting discounts, selling commissions, and unit transfer taxes applicable to the sale of Registrable Securities, and fees and disbursements of counsel for any Holder, except for the fees and disbursements of the Selling Holder Counsel borne and paid by the Company as provided in Subsection 2.6.

1.28 "**Series A Preferred Units**" means the Company's Series A Preferred Units or shares of Series A or other preferred stock received in respect of the Series A Preferred Units if the Company is converted or otherwise becomes a corporation.

1.29 "**Units**" means, collectively, the Common Units and the Series A Preferred Units.

2. Registration Rights. The Company covenants and agrees as follows:

2.1 Demand Registration.

(a) Form S-1 Demand. If at any time after the earlier of (i) five (5) years after the date of this Agreement or (ii) one hundred eighty (180) days after the effective date of the registration statement for the IPO, the Company receives a request from Holders of forty five percent (45%) (or fifty-five percent (55%) in the case of clause (ii)) of the Registrable Securities then outstanding that the Company file a Form S-1 registration statement with respect to at least forty percent (40%) of the Registrable Securities then outstanding (or a lesser percent if the anticipated aggregate offering price, net of Selling Expenses, would exceed $5 million), then the Company shall (x) within ten (10) days after the date such request is given, give notice thereof (the "**Demand Notice**") to all Holders other than the Initiating Holders; and (y) as soon as practicable, and in any event within sixty (60) days after the date such request is given by the Initiating Holders, file a Form S-1 registration statement under the Securities Act covering all Registrable Securities that the Initiating Holders requested to be registered and any additional Registrable Securities requested to be included in such registration by any other Holders, as specified by notice given by each such Holder to the Company within twenty (20) days of the date the Demand Notice is given, and in each case, subject to the limitations of Subsection 2.1(c) and Subsection 2.3.

(b) Form S-3 Demand. If at any time when it is eligible to use a Form S-3 registration statement, the Company receives a request from Holders of at least twenty percent (20%) of the Registrable Securities then outstanding that the Company file a Form S-3 registration statement with respect to outstanding Registrable Securities of such Holders having an anticipated aggregate offering price, net of Selling Expenses, of at least $500,000, then the Company shall (i) within ten (10) days after the date such request is given, give a Demand Notice to all Holders other than the Initiating Holders; and (ii) as soon as practicable, and in any event within forty-five (45) days after the date such request is given by the Initiating Holders, file a Form S-3 registration statement under the Securities Act covering all Registrable Securities

requested to be included in such registration by any other Holders, as specified by notice given by each such Holder to the Company within twenty (20) days of the date the Demand Notice is given, and in each case, subject to the limitations of Subsection 2.1(c) and Subsection 2.3.

(c) Notwithstanding the foregoing obligations, if the Company furnishes to Holders requesting a registration pursuant to this Subsection 2.1 a certificate signed by the Company's chief executive officer stating that in the good faith judgment of the Company's Board of Directors it would be materially detrimental to the Company and its equityholders for such registration statement to either become effective or remain effective for as long as such registration statement otherwise would be required to remain effective, because such action would (i) materially interfere with a significant acquisition, corporate reorganization, or other similar transaction involving the Company; (ii) require premature disclosure of material information that the Company has a bona fide business purpose for preserving as confidential; or (iii) render the Company unable to comply with requirements under the Securities Act or Exchange Act, then the Company shall have the right to defer taking action with respect to such filing, and any time periods with respect to filing or effectiveness thereof shall be tolled correspondingly, for a period of not more than ninety (90) days after the request of the Initiating Holders is given; provided, however, that the Company may not invoke this right more than once in any twelve (12) month period ; and provided further that the Company shall not register any securities for its own account or that of any other equityholder during such ninety (90) day period other than an Excluded Registration.

(d) The Company shall not be obligated to effect, or to take any action to effect, any registration pursuant to Subsection 2.1(a)(i) during the period that is sixty (60) days before the Company's good faith estimate of the date of filing of, and ending on a date that is one hundred eighty (180) days after the effective date of, a Company-initiated registration, provided, that the Company is actively employing in good faith commercially reasonable efforts to cause such registration statement to become effective; (ii) after the Company has effected three registrations pursuant to Subsection 2.1(a); or (iii) if the Initiating Holders propose to dispose of Registrable Securities that may be immediately registered on Form S-3 pursuant to a request made pursuant to Subsection 2.1(b). The Company shall not be obligated to effect, or to take any action to effect, any registration pursuant to Subsection 2.1(b) (i) during the period that is thirty (30) days before the Company's good faith estimate of the date of filing of, and ending on a date that is ninety (90) days after the effective date of, a Company-initiated registration, provided, that the Company is actively employing in good faith commercially reasonable efforts to cause such registration statement to become effective; or (ii) if the Company has effected two registrations pursuant to Subsection 2.1(b) within the twelve (12) month period immediately preceding the date of such request. A registration shall not be counted as "effected" for purposes of this Subsection 2.1(d) until such time as the applicable registration statement has been declared effective by the SEC, unless the Initiating Holders withdraw their request for such registration, elect not to pay the registration expenses therefor, and forfeit their right to one demand registration statement pursuant to Subsection 2.6, in which case such withdrawn registration statement shall be counted as "effected" for purposes of this Subsection 2.1(d).

2.2 Company Registration. If the Company proposes to register (including, for this purpose, a registration effected by the Company for equityholders other than the Holders) any of its Common Units under the Securities Act in connection with the public offering of such

securities solely for cash (other than in an Excluded Registration), the Company shall, at such time, promptly give each Holder notice of such registration. Upon the request of each Holder given within twenty (20) days after such notice is given by the Company, the Company shall, subject to the provisions of Subsection 2.3, cause to be registered all of the Registrable Securities that each such Holder has requested to be included in such registration. The Company shall have the right to terminate or withdraw any registration initiated by it under this Subsection 2.2 before the effective date of such registration, whether or not any Holder has elected to include Registrable Securities in such registration. The expenses (other than Selling Expenses) of such withdrawn registration shall be borne by the Company in accordance with Subsection 2.6.

2.3 Underwriting Requirements.

(a) If, pursuant to Subsection 2.1, the Initiating Holders intend to distribute the Registrable Securities covered by their request by means of an underwriting, they shall so advise the Company as a part of their request made pursuant to Subsection 2.1, and the Company shall include such information in the Demand Notice. The underwriter(s) will be selected by the Company and shall be reasonably acceptable to a majority in interest of the Initiating Holders. In such event, the right of any Holder to include such Holder's Registrable Securities in such registration shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting to the extent provided herein. All Holders proposing to distribute their securities through such underwriting shall (together with the Company as provided in Subsection 2.4(e)) enter into an underwriting agreement in customary form with the underwriter(s) selected for such underwriting. Notwithstanding any other provision of this Subsection 2.3, if the managing underwriter(s) advise(s) the Initiating Holders in writing that marketing factors require a limitation on the number of securities to be underwritten, then the Initiating Holders shall so advise all Holders of Registrable Securities that otherwise would be underwritten pursuant hereto, and the number of Registrable Securities that may be included in the underwriting shall be allocated among such Holders of Registrable Securities, including the Initiating Holders, in proportion (as nearly as practicable) to the number of Registrable Securities owned by each Holder or in such other proportion as shall mutually be agreed to by all such selling Holders; provided, however, that the number of Registrable Securities held by the Holders to be included in such underwriting shall not be reduced unless all other securities are first entirely excluded from the underwriting. To facilitate the allocation of units in accordance with the above provisions, the Company or the underwriters may round the number of units allocated to any Holder to the nearest 100 units.

(b) In connection with any offering involving an underwriting of the Company's securities pursuant to Subsection 2.2, the Company shall not be required to include any of the Holders' Registrable Securities in such underwriting unless the Holders accept the terms of the underwriting as agreed upon between the Company and its underwriters, and then only in such quantity as the underwriters in their sole discretion determine will not jeopardize the success of the offering by the Company. If the total number of securities, including Registrable Securities, requested by equityholders to be included in such offering exceeds the number of securities to be sold (other than by the Company) that the underwriters in their reasonable discretion determine is compatible with the success of the offering, then the Company shall be required to include in the offering only that number of such securities, including Registrable

Securities, which the underwriters and the Company in their sole discretion determine will not jeopardize the success of the offering. If the underwriters determine that less than all of the Registrable Securities requested to be registered can be included in such offering, then the Registrable Securities that are included in such offering shall be allocated among the selling Holders in proportion (as nearly as practicable to) the number of Registrable Securities owned by each selling Holder or in such other proportions as shall mutually be agreed to by all such selling Holders. To facilitate the allocation of units in accordance with the above provisions, the Company or the underwriters may round the number of units allocated to any Holder to the nearest 100 units. Notwithstanding the foregoing, in no event shall (i) the number of Registrable Securities included in the offering be reduced unless all other securities (other than securities to be sold by the Company) are first entirely excluded from the offering, and (ii) the number of Registrable Securities included in the offering be reduced below thirty percent (30%) of the total number of securities included in such offering, unless such offering is the IPO, in which case the selling Holders may be excluded further if the underwriters make the determination described above and no other equityholder's securities are included in such offering. For purposes of the provision in this Subsection 2.3(b) concerning apportionment, for any selling Holder that is a partnership, limited liability company, or corporation, the partners, members, retired partners, retired members, equityholders, and Affiliates of such Holder, or the estates and Immediate Family Members of any such partners, retired partners, members, and retired members and any trusts for the benefit of any of the foregoing Persons, shall be deemed to be a single "selling Holder," and any pro rata reduction with respect to such "selling Holder" shall be based upon the aggregate number of Registrable Securities owned by all Persons included in such "selling Holder," as defined in this sentence.

(c) For purposes of Subsection 2.1, a registration shall not be counted as "effected" if, as a result of an exercise of the underwriter's cutback provisions in Subsection 2.3(a), fewer than fifty percent (50%) of the total number of Registrable Securities that Holders have requested to be included in such registration statement are actually included.

2.4 Obligations of the Company. Whenever required under this Section 2 to effect the registration of any Registrable Securities, the Company shall, as expeditiously as reasonably possible:

(a) prepare and file with the SEC a registration statement with respect to such Registrable Securities and use its best efforts to cause such registration statement to become effective and, upon the request of the Holders of a majority of the Registrable Securities registered thereunder, keep such registration statement effective for a period of up to one hundred twenty (120) days or, if earlier, until the distribution contemplated in the registration statement has been completed; provided, however, that (i) such one hundred twenty (120) day period shall be extended for a period of time equal to the period the Holder refrains, at the request of an underwriter of Common Units (or other securities) of the Company, from selling any securities included in such registration, and (ii) in the case of any registration of Registrable Securities on Form S-3 that are intended to be offered on a continuous or delayed basis, subject to compliance with applicable SEC rules, such one hundred twenty (120) day period shall be extended for up to thirty (30) days, if necessary, to keep the registration statement effective until all such Registrable Securities are sold;

(b) prepare and file with the SEC such amendments and supplements to such registration statement, and the prospectus used in connection with such registration statement, as may be necessary to comply with the Securities Act in order to enable the disposition of all securities covered by such registration statement;

(c) furnish to the selling Holders such numbers of copies of a prospectus, including a preliminary prospectus, as required by the Securities Act, and such other documents as the Holders may reasonably request in order to facilitate their disposition of their Registrable Securities;

(d) use its commercially reasonable efforts to register and qualify the securities covered by such registration statement under such other securities or blue-sky laws of such jurisdictions as shall be reasonably requested by the selling Holders; provided that the Company shall not be required to qualify to do business or to file a general consent to service of process in any such states or jurisdictions, unless the Company is already subject to service in such jurisdiction and except as may be required by the Securities Act;

(e) in the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the underwriter(s) of such offering;

(f) use its commercially reasonable efforts to cause all such Registrable Securities covered by such registration statement to be listed on a national securities exchange or trading system and each securities exchange and trading system (if any) on which similar securities issued by the Company are then listed;

(g) provide a transfer agent and registrar for all Registrable Securities registered pursuant to this Agreement and provide a CUSIP number for all such Registrable Securities, in each case not later than the effective date of such registration;

(h) promptly make available for inspection by the selling Holders, any managing underwriter(s) participating in any disposition pursuant to such registration statement, and any attorney or accountant or other agent retained by any such underwriter or selected by the selling Holders, all financial and other records, pertinent corporate documents, and properties of the Company, and cause the Company's officers, directors, employees, and independent accountants to supply all information reasonably requested by any such seller, underwriter, attorney, accountant, or agent, in each case, as necessary or advisable to verify the accuracy of the information in such registration statement and to conduct appropriate due diligence in connection therewith;

(i) notify each selling Holder, promptly after the Company receives notice thereof, of the time when such registration statement has been declared effective or a supplement to any prospectus forming a part of such registration statement has been filed; and

(j) after such registration statement becomes effective, notify each selling Holder of any request by the SEC that the Company amend or supplement such registration statement or prospectus.

In addition, the Company shall ensure that, at all times after any registration statement covering a public offering of securities of the Company under the Securities Act shall have become effective, its insider trading policy shall provide that the Company's directors may implement a trading program under Rule 10b5-1 of the Exchange Act.

2.5 Furnish Information. It shall be a condition precedent to the obligations of the Company to take any action pursuant to this Section 2 with respect to the Registrable Securities of any selling Holder that such Holder shall furnish to the Company such information regarding itself, the Registrable Securities held by it, and the intended method of disposition of such securities as is reasonably required to effect the registration of such Holder's Registrable Securities.

2.6 Expenses of Registration. All expenses (other than Selling Expenses) incurred in connection with registrations, filings, or qualifications pursuant to Section 2, including all registration, filing, and qualification fees; printers' and accounting fees; fees and disbursements of counsel for the Company; and the reasonable fees and disbursements of one counsel for the selling Holders ("**Selling Holder Counsel**"), shall be borne and paid by the Company; provided, however, that the Company shall not be required to pay for any expenses of any registration proceeding begun pursuant to Subsection 2.1 if the registration request is subsequently withdrawn at the request of the Holders of a majority of the Registrable Securities to be registered (in which case all selling Holders shall bear such expenses pro rata based upon the number of Registrable Securities that were to be included in the withdrawn registration), unless the Holders of a majority of the Registrable Securities agree to forfeit their right to one registration pursuant to Subsection 2.1(a) or Subsection 2.1(b), as the case may be; provided further that if, at the time of such withdrawal, the Holders shall have learned of a material adverse change in the condition, business, or prospects of the Company from that known to the Holders at the time of their request and have withdrawn the request with reasonable promptness after learning of such information then the Holders shall not be required to pay any of such expenses and shall not forfeit their right to one registration pursuant to Subsection 2.1(a) or Subsection 2.1(b). All Selling Expenses relating to Registrable Securities registered pursuant to this Section 2 shall be borne and paid by the Holders pro rata on the basis of the number of Registrable Securities registered on their behalf.

2.7 Delay of Registration. No Holder shall have any right to obtain or seek an injunction restraining or otherwise delaying any registration pursuant to this Agreement as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 2.

2.8 Indemnification. If any Registrable Securities are included in a registration statement under this Section 2:

(a) To the extent permitted by law, the Company will indemnify and hold harmless each selling Holder, and the partners, members, officers, directors, and equityholders of each such Holder; legal counsel and accountants for each such Holder; any underwriter (as defined in the Securities Act) for each such Holder; and each Person, if any, who controls such Holder or underwriter within the meaning of the Securities Act or the Exchange Act, against any Damages, and the Company will pay to each such Holder, underwriter,

controlling Person, or other aforementioned Person any legal or other expenses reasonably incurred thereby in connection with investigating or defending any claim or proceeding from which Damages may result, as such expenses are incurred; provided, however, that the indemnity agreement contained in this Subsection 2.8(a) shall not apply to amounts paid in settlement of any such claim or proceeding if such settlement is effected without the consent of the Company, which consent shall not be unreasonably withheld, nor shall the Company be liable for any Damages to the extent that they arise out of or are based upon actions or omissions made in reliance upon and in conformity with written information furnished by or on behalf of any such Holder, underwriter, controlling Person, or other aforementioned Person expressly for use in connection with such registration.

(b) To the extent permitted by law, each selling Holder, severally and not jointly, will indemnify and hold harmless the Company, and each of its directors, each of its officers who has signed the registration statement, each Person (if any), who controls the Company within the meaning of the Securities Act, legal counsel and accountants for the Company, any underwriter (as defined in the Securities Act), any other Holder selling securities in such registration statement, and any controlling Person of any such underwriter or other Holder, against any Damages, in each case only to the extent that such Damages arise out of or are based upon actions or omissions made in reliance upon and in conformity with written information furnished by or on behalf of such selling Holder expressly for use in connection with such registration; and each such selling Holder will pay to the Company and each other aforementioned Person any legal or other expenses reasonably incurred thereby in connection with investigating or defending any claim or proceeding from which Damages may result, as such expenses are incurred; provided, however, that the indemnity agreement contained in this Subsection 2.8(b) shall not apply to amounts paid in settlement of any such claim or proceeding if such settlement is effected without the consent of the Holder, which consent shall not be unreasonably withheld; and provided further that in no event shall the aggregate amounts payable by any Holder by way of indemnity or contribution under Subsections 2.8(b) and 2.8(d) exceed the proceeds from the offering received by such Holder (net of any Selling Expenses paid by such Holder), except in the case of fraud or willful misconduct by such Holder.

(c) Promptly after receipt by an indemnified party under this Subsection 2.8 of notice of the commencement of any action (including any governmental action) for which a party may be entitled to indemnification hereunder, such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Subsection 2.8, give the indemnifying party notice of the commencement thereof. The indemnifying party shall have the right to participate in such action and, to the extent the indemnifying party so desires, participate jointly with any other indemnifying party to which notice has been given, and to assume the defense thereof with counsel mutually satisfactory to the parties; provided, however, that an indemnified party (together with all other indemnified parties that may be represented without conflict by one counsel) shall have the right to retain one separate counsel, with the fees and expenses to be paid by the indemnifying party, if representation of such indemnified party by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests between such indemnified party and any other party represented by such counsel in such action. The failure to give notice to the indemnifying party within a reasonable time of the commencement of any such action shall relieve such indemnifying party of any liability to the indemnified party under this

Subsection 2.8, to the extent that such failure materially prejudices the indemnifying party's ability to defend such action. The failure to give notice to the indemnifying party will not relieve it of any liability that it may have to any indemnified party otherwise than under this Subsection 2.8.

(d) To provide for just and equitable contribution to joint liability under the Securities Act in any case in which either (i) any party otherwise entitled to indemnification hereunder makes a claim for indemnification pursuant to this Subsection 2.8 but it is judicially determined (by the entry of a final judgment or decree by a court of competent jurisdiction and the expiration of time to appeal or the denial of the last right of appeal) that such indemnification may not be enforced in such case, notwithstanding the fact that this Subsection 2.8 provides for indemnification in such case, or (ii) contribution under the Securities Act may be required on the part of any party hereto for which indemnification is provided under this Subsection 2.8, then, and in each such case, such parties will contribute to the aggregate losses, claims, damages, liabilities, or expenses to which they may be subject (after contribution from others) in such proportion as is appropriate to reflect the relative fault of each of the indemnifying party and the indemnified party in connection with the statements, omissions, or other actions that resulted in such loss, claim, damage, liability, or expense, as well as to reflect any other relevant equitable considerations. The relative fault of the indemnifying party and of the indemnified party shall be determined by reference to, among other things, whether the untrue or allegedly untrue statement of a material fact, or the omission or alleged omission of a material fact, relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information, and opportunity to correct or prevent such statement or omission; provided, however, that, in any such case, (x) no Holder will be required to contribute any amount in excess of the public offering price of all such Registrable Securities offered and sold by such Holder pursuant to such registration statement, and (y) no Person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) will be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation; and provided further that in no event shall a Holder's liability pursuant to this Subsection 2.8(d), when combined with the amounts paid or payable by such Holder pursuant to Subsection 2.8(b), exceed the proceeds from the offering received by such Holder (net of any Selling Expenses paid by such Holder**)**, except in the case of willful misconduct or fraud by such Holder.

(e) Notwithstanding the foregoing, to the extent that the provisions on indemnification and contribution contained in the underwriting agreement entered into in connection with the underwritten public offering are in conflict with the foregoing provisions, the provisions in the underwriting agreement shall control.

(f) Unless otherwise superseded by an underwriting agreement entered into in connection with the underwritten public offering, the obligations of the Company and Holders under this Subsection 2.8 shall survive the completion of any offering of Registrable Securities in a registration under this Section 2, and otherwise shall survive the termination of this Agreement.

2.9 Reports Under Exchange Act. With a view to making available to the Holders the benefits of SEC Rule 144 and any other rule or regulation of the SEC that may at any time permit a Holder to sell securities of the Company to the public without registration or pursuant to a registration on Form S-3, the Company shall:

(a) make and keep available adequate current public information, as those terms are understood and defined in SEC Rule 144, at all times after the effective date of the registration statement filed by the Company for the IPO;

(b) use commercially reasonable efforts to file with the SEC in a timely manner all reports and other documents required of the Company under the Securities Act and the Exchange Act (at any time after the Company has become subject to such reporting requirements); and

(c) furnish to any Holder, so long as the Holder owns any Registrable Securities, forthwith upon request (i) to the extent accurate, a written statement by the Company that it has complied with the reporting requirements of SEC Rule 144 (at any time after ninety (90) days after the effective date of the registration statement filed by the Company for the IPO), the Securities Act, and the Exchange Act (at any time after the Company has become subject to such reporting requirements), or that it qualifies as a registrant whose securities may be resold pursuant to Form S-3 (at any time after the Company so qualifies); (ii) a copy of the most recent annual or quarterly report of the Company and such other reports and documents so filed by the Company; and (iii) such other information as may be reasonably requested in availing any Holder of any rule or regulation of the SEC that permits the selling of any such securities without registration (at any time after the Company has become subject to the reporting requirements under the Exchange Act) or pursuant to Form S-3 (at any time after the Company so qualifies to use such form).

2.10 Limitations on Subsequent Registration Rights. From and after the date of this Agreement, the Company shall not, without the prior written consent of the Holders of at lest 55% of the Registrable Securities then outstanding, enter into any agreement with any holder or prospective holder of any securities of the Company that would allow such holder or prospective holder to include such securities in any registration unless, under the terms of such agreement, such holder or prospective holder may include such securities in any such registration only to the extent that the inclusion of such securities will not reduce the number of the Registrable Securities of the Holders that are included; provided that this limitation shall not apply to any additional Investor who becomes a party to this Agreement in accordance with Subsection 6.9.

2.11 "Market Stand-off" Agreement. Each Holder hereby agrees that it will not, without the prior written consent of the managing underwriter, during the period commencing on the date of the final prospectus relating to the registration by the Company of its Common Units or any other equity securities under the Securities Act on a registration statement on Form S-1, and ending on the date specified by the Company and the managing underwriter (such period not to exceed one hundred eighty (180) days) (i) lend; offer; pledge; sell; contract to sell; sell any option or contract to purchase; purchase any option or contract to sell; grant any option, right, or warrant to purchase; or otherwise transfer or dispose of, directly or indirectly, any Common Units or any securities convertible into or exercisable or exchangeable (directly or indirectly) for Common Units or (ii) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of such securities,

whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of Common Units or other securities, in cash, or otherwise. The foregoing provisions of this Subsection 2.11 shall apply only to the IPO, shall not apply to the sale of any units to an underwriter pursuant to an underwriting agreement, or the transfer of any units to any trust for the direct or indirect benefit of the Holder or the immediate family of the Holder, provided that the trustee of the trust agrees to be bound in writing by the restrictions set forth herein, and provided further that any such transfer shall not involve a disposition for value, and shall be applicable to the Holders only if all officers and directors are subject to the same restrictions and the Company uses commercially reasonable efforts to obtain a similar agreement from all equityholders individually owning more than one percent (1%) of the Company's outstanding Common Units (after giving effect to conversion into Common Units of all outstanding Series A Preferred Units). The underwriters in connection with such registration are intended third-party beneficiaries of this Subsection 2.11 and shall have the right, power, and authority to enforce the provisions hereof as though they were a party hereto. Each Holder further agrees to execute such agreements as may be reasonably requested by the underwriters in connection with such registration that are consistent with this Subsection 2.11 or that are necessary to give further effect thereto. Any discretionary waiver or termination of the restrictions of any or all of such agreements by the Company or the underwriters shall apply pro rata to all Holders subject to such agreements, based on the number of units subject to such agreements.

2.12 Restrictions on Transfer.

(a) The Series A Preferred Units and the Registrable Securities shall not be sold, pledged, or otherwise transferred, and the Company shall not recognize and shall issue stop-transfer instructions to its transfer agent with respect to any such sale, pledge, or transfer, except upon the conditions specified in this Agreement, which conditions are intended to ensure compliance with the provisions of the Securities Act. A transferring Holder will cause any proposed purchaser, pledgee, or transferee of the Series A Preferred Units and the Registrable Securities held by such Holder to agree to take and hold such securities subject to the provisions and upon the conditions specified in this Agreement.

(b) Each certificate or instrument representing (i) the Series A Preferred Units, (ii) the Registrable Securities, and (iii) any other securities issued in respect of the securities referenced in clauses (i) and (ii), upon any unit split, unit dividend, recapitalization, merger, consolidation, or similar event, shall (unless otherwise permitted by the provisions of Subsection 2.12(c)) be stamped or otherwise imprinted with a legend substantially in the following form:

THE SECURITIES REPRESENTED HEREBY HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933. SUCH UNITS MAY NOT BE SOLD, PLEDGED, OR TRANSFERRED IN THE ABSENCE OF SUCH REGISTRATION OR A VALID EXEMPTION FROM THE REGISTRATION AND PROSPECTUS DELIVERY REQUIREMENTS OF SAID ACT.

THE SECURITIES REPRESENTED HEREBY MAY BE TRANSFERRED ONLY IN ACCORDANCE WITH THE TERMS OF AN AGREEMENT BETWEEN THE COMPANY AND THE EQUITYHOLDER, A COPY OF WHICH IS ON FILE WITH THE SECRETARY OF THE COMPANY.

The Holders consent to the Company making a notation in its records and giving instructions to any transfer agent of the Restricted Securities in order to implement the restrictions on transfer set forth in this Subsection 2.12.

(c) The holder of each certificate representing Restricted Securities, by acceptance thereof, agrees to comply in all respects with the provisions of this Section 2. Before any proposed sale, pledge, or transfer of any Restricted Securities, unless there is in effect a registration statement under the Securities Act covering the proposed transaction, the Holder thereof shall give notice to the Company of such Holder's intention to effect such sale, pledge, or transfer. Each such notice shall describe the manner and circumstances of the proposed sale, pledge, or transfer in sufficient detail and, if reasonably requested by the Company, shall be accompanied at such Holder's expense by either (i) a written opinion of legal counsel who shall, and whose legal opinion shall, be reasonably satisfactory to the Company, addressed to the Company, to the effect that the proposed transaction may be effected without registration under the Securities Act; (ii) a "no action" letter from the SEC to the effect that the proposed sale, pledge, or transfer of such Restricted Securities without registration will not result in a recommendation by the staff of the SEC that action be taken with respect thereto; or (iii) any other evidence reasonably satisfactory to counsel to the Company to the effect that the proposed sale, pledge, or transfer of the Restricted Securities may be effected without registration under the Securities Act, whereupon the Holder of such Restricted Securities shall be entitled to sell, pledge, or transfer such Restricted Securities in accordance with the terms of the notice given by the Holder to the Company. The Company will not require such a legal opinion or "no action" letter (x) in any transaction in compliance with SEC Rule 144 or (y) in any transaction in which such Holder distributes Restricted Securities to an Affiliate of such Holder for no consideration; provided that each transferee agrees in writing to be subject to the terms of this Subsection 2.12. Each certificate or instrument evidencing the Restricted Securities transferred as above provided shall bear, except if such transfer is made pursuant to SEC Rule 144, the appropriate restrictive legend set forth in Subsection 2.12(b), except that such certificate shall not bear such restrictive legend if, in the opinion of counsel for such Holder and the Company, such legend is not required in order to establish compliance with any provisions of the Securities Act.

2.13 Termination of Registration Rights. The right of any Holder to request registration or inclusion of Registrable Securities in any registration pursuant to Subsection 2.1 or Subsection 2.2 shall terminate upon the earliest to occur of:

(a) the closing of a Deemed Liquidation Event, as such term is defined in the Company's Restated Operating Agreement;

(b) such time as Rule 144 or another similar exemption under the Securities Act is available for the sale of all of such Holder's units without limitation during a three-month period without registration; and

(c) the seven year anniversary of the IPO.

3. Information and Observer Rights, Etc.

3.1 Delivery of Financial Statements. The Company shall deliver to each Investor:

(a) as soon as practicable, but in any event within ninety (90) days after the end of each fiscal year of the Company, (i) a balance sheet as of the end of such year; (ii) statements of income and of cash flows for such year; and (iii) a statement of members' (or stockholders') equity as of the end of such year, audited and certified by independent public accountants of nationally or regionally recognized standing selected by the Company;

(b) as soon as practicable, but in any event within forty five (45) days after the end of each of the first three quarters of each fiscal year of the Company, unaudited statements of income and of cash flows for such fiscal quarter and for the current fiscal year to date, and an unaudited balance sheet and a statement of members' (or stockholders') equity as of the end of such fiscal quarter, all prepared in accordance with GAAP (except that such financial statements may (i) be subject to normal year-end audit adjustments and (ii) not contain all notes thereto that may be required in accordance with GAAP);

(c) as soon as practicable, but in any event thirty (30) days before the end of each fiscal year, a budget and business plan for the next fiscal year (collectively, the "**Budget**");

(d) with respect to the financial statements called for in Section 3.1(a) and Section 3.1(b), an instrument executed by the chief executive officer of the Company certifying that such financial statements were prepared in accordance with GAAP consistently applied (except as otherwise set forth in Section 3.1(b); and

(e) such other information relating to the financial condition, business, prospects, or corporate affairs of the Company or its subsidiaries as any Investor may from time to time reasonably request; provided, however, that the Company shall not be obligated under this Section 3.1 to provide information (i) that the Company reasonably determines in good faith to be a trade secret or confidential information (unless covered by an enforceable confidentiality agreement, in form acceptable to the Company) or (ii) the disclosure of which would adversely affect the attorney-client privilege between the Company and its counsel.

(f) If, for any period, the Company has any subsidiary whose accounts are consolidated with those of the Company, then in respect of such period the financial statements delivered pursuant to the foregoing sections shall be the consolidated and consolidating financial statements of the Company and all such consolidated subsidiaries.

(g) Notwithstanding anything else in this Section 3.1 to the contrary, the Company may cease providing the information set forth in this Section 3.1 during the period starting with the date sixty (60) days before the Company's good-faith estimate of the date of filing of a registration statement under the Securities Act; provided that the Company's covenants under this Section 3.1 shall be reinstated at such time as the Company is no longer actively employing its commercially reasonable efforts to cause such registration statement to become effective.

3.2 Inspection. The Company shall permit each Investor, at such Investor's expense, to visit and inspect the Company's and its subsidiaries' properties; examine its and its subsidiaries' books of account and records; and discuss the Company's and its subsidiaries' affairs, finances, and accounts with its officers, during normal business hours of the Company and its subsidiaries as may be reasonably requested by the Investor; provided, however, that the Company shall not be obligated pursuant to this Section 3.2 to provide access to any information that it reasonably considers to be a trade secret or confidential information (unless covered by an enforceable confidentiality agreement, in form acceptable to the Company) or the disclosure of which would adversely affect the attorney-client privilege between the Company and its counsel.

3.3 Termination of Information Rights. The covenants set forth in Section 3.1 and Section 3.2 shall terminate and be of no further force or effect (i) immediately before the consummation of the IPO, (ii) when the Company first becomes subject to the periodic reporting requirements of section 12(g) or 15(d) of the Exchange Act, (iii) upon a Deemed Liquidation Event, or (iv) as to any Investor, when such Investor no longer holds any equity securities of the Company, whichever event occurs first.

3.4 Confidentiality. Each Investor agrees that such Investor will keep confidential and will not disclose, divulge, or use for any purpose (other than to monitor its investment in the Company) any confidential information obtained from the Company pursuant to the terms of this Agreement (including notice of the Company's intention to file a registration statement), unless such confidential information (a) is known or becomes known to the public in general (other than as a result of a breach of this Section 3.4 by such Investor), (b) is or has been independently developed or conceived by the Investor without use of the Company's confidential information, or (c) is or has been made known or disclosed to the Investor by a third party without a breach of any obligation of confidentiality such third party may have to the Company; provided, however, that an Investor may disclose confidential information (i) to its attorneys, accountants, consultants, and other professionals in connection with monitoring its investment in the Company; (ii) to any prospective purchaser of any Registrable Securities from such Investor, if such prospective purchaser agrees to be bound by the provisions of this Section 3.4; (iii) to any Affiliate, partner, member, equityholder, or wholly owned subsidiary of such Investor in the ordinary course of business, provided that such Investor informs such Person that such information is confidential and directs such Person to maintain the confidentiality of such information; or (iv) as may otherwise be required by law, provided that the Investor promptly notifies the Company of such disclosure and takes reasonable steps to minimize the extent of any such required disclosure.

3.5 Liability Insurance; Directors' and Officers' Liability Insurance. The Company shall obtain within 30 days of the date hereof, or be an insured party beneficiary pursuant to, (i) a general liability insurance policy, a product liability insurance policy and a directors' and officers' liability insurance policy (the "**D&O Policy**"), on terms reasonably satisfactory to the Investors, and (ii) key man life insurance on its Chief Executive Officer of not less than $3,000,000, in each such case on terms and conditions that are reasonably acceptable the Board. The Company shall maintain such policies in full force and effect at all times.

3.6 Unit Vesting; Unit Restriction Agreements. All units, profits interest, options and other equity equivalents issued after the date of this Agreement to employees, managers, consultants and other service providers in their capacities as such shall be subject to vesting on terms approved by the Board or the Finance Committee of the Board.

3.7 Reservation of Common Units. The Company shall at all times reserve and keep available, solely for issuance and delivery upon the conversion of the Series A Preferred Units, all Common Units issuable from time to time upon such conversion.

3.8 Proprietary Rights Agreement. The Company and each of its subsidiaries shall require all employees, officers and consultants to execute and deliver an Invention Assignment, Non-Disclosure and Non-Compete Agreement in form and substance reasonably acceptable to the Board.

3.9 Managers Liability and Indemnification. The Company's and each of its subsidiaries' operating agreement and other organizational documents shall provide (a) for elimination of the liability of Managers to the maximum extent permitted by applicable law and (b) for indemnification of Managers for acts on behalf of the Company and its subsidiaries to the maximum extent permitted by applicable law.

3.10 Scientific Advissory Board. Within 90 days of the date hereof, the Company shall form a Scientific Advisory Board ("**SAB**") of at least 5 members, of which Merck Global Health Innovation Fund, LLC, so long as it is a Member of the Company, shall have the right to appoint two members. The Company shall reasonably consult with the Investor Managers (as such term is defined in the Restated Operating Agreement) on prospective members of the SAB prior to their appointment.

4. Rights to Future Equity Issuances.

4.1 Right of First Offer. Subject to the terms and conditions of this Section 4.1, if the Company proposes to offer or sell any New Securities, the Company shall first offer such New Securities to each Investor. An Investor shall be entitled to apportion the right of first offer hereby granted to it among itself and its Affiliates in such proportions as it deems appropriate. Notwithstanding any other provision set forth in this Section 4 to the contrary, an Investor (and its Affiliates) shall only be entitled to exercise the rights granted to it under this Section 4 to the extent that it is an "accredited investor" as such term is defined under Regulation D promulgated under the Securities Act.

(a) The Company shall give notice (the "**Offer Notice**") to each Investor stating (i) its bona fide intention to offer such New Securities, (ii) the number of such New Securities to be offered, and (iii) the price and terms, if any, upon which it proposes to offer such New Securities.

(b) By notification to the Company within twenty (20) days after the Offer Notice is given, each Investor may elect to purchase or otherwise acquire, at the price and on the terms specified in the Offer Notice, up to that portion of such New Securities which equals the proportion that the Common Units issued and held, or issuable upon conversion of the Series A Preferred Units and any other Derivative Securities then held, by such Investor bears to

the total Common Units of the Company issued and held, or issuable upon conversion of the Series A Preferred Units and any other Derivative Securities then held, by all the Investors. At the expiration of such twenty (20) day period, the Company shall promptly notify each Investor that elects to purchase or acquire all the securities available to it (each, a "**Fully Exercising Investor**") of any other Investor's failure to do likewise. During the ten (10) day period commencing after the Company has given such notice, each Fully Exercising Investor may, by giving notice to the Company, elect to purchase or acquire, in addition to the number of securities specified above, up to that portion of the New Securities for which Investors were entitled to subscribe but that were not subscribed for by the Investors which is equal to the proportion that the Common Units issued and held, or issuable upon conversion of Series A Preferred Units then held, by such Fully Exercising Investor bears to the Common Units issued and held, or issuable upon conversion of the Series A Preferred Units then held, by all Fully Exercising Investors who wish to purchase such unsubscribed securities.

(c) If all New Securities referred to in the Offer Notice are not elected to be purchased or acquired as provided in Section 4.1(b), the Company may, during the ninety (90) day period following the expiration of the periods provided in Section 4.1(b), offer and sell the remaining unsubscribed portion of such New Securities to any Person or Persons at a price not less than, and upon terms no more favorable to the offeree than, those specified in the Offer Notice. If the Company does not enter into an agreement for the sale of the New Securities within such period, or if such agreement is not consummated within thirty (30) days of the execution thereof, the right provided hereunder shall be deemed to be revived and such New Securities shall not be offered unless first reoffered to the Investors in accordance with this Section 4.1.

(d) The right of first offer in this Section 4.1 shall not be applicable to (i) Common Units, options or convertible securities issued as a dividend or distribution on the Series A Preferred Units; (ii) Common Units, options or convertible securities issued by reason of a dividend, unit split, split-up or other distribution on Common Units , (iii) Exempted Securities or pursuant to the Profits Interest Plan (as each such term is defined in the Restated Operating Agreement); (iv) Common Units or convertible securities issued upon the exercise of options or Common Units issued upon the conversion or exchange of convertible securities, in each case provided such issuance is pursuant to the terms of such option or convertible security; (v) Common Units or options issued to the underwriters in connection with an IPO; (vi) Common Units, options or convertible securities issued pursuant to the acquisition of another business by the Company by merger, purchase of substantially all of the assets or other reorganization, which acquisition has been approved in accordance with the Restated Operating Agreement, or (vii) Series A Preferred Units issued pursuant to the Purchase Agreement.

(e) The Investors shall set the place, time and date for the consummation of the purchase of the New Securities by the Investors which shall occur not later than (a) if the Investors have elected to purchase all of the New Securities, twenty (20) days after the expiration of the last applicable period set forth in Section 4.1(b) and (b) if the Investors have not elected to purchase all of the New Securities, the date that the remaining New Securities are sold to the third party or parties.

4.2 Termination. The covenants set forth in Section 4.1 shall terminate and be of no further force or effect (i) immediately before the consummation of a IPO or (ii) upon a Deemed Liquidation Event, or (iii) as to any Investor, when such Investor becomes a Defaulting Purchaser under the Purchase Agreement, whichever event occurs first.

5. Additional Covenants.

5.1 Successor Indemnification. If the Company or any of its successors or assignees consolidates with or merges into any other Person and is not the continuing or surviving corporation or entity of such consolidation or merger, then to the extent necessary, proper provision shall be made so that the successors and assignees of the Company assume the obligations of the Company with respect to indemnification of members of the Board as in effect immediately before such transaction, whether such obligations are contained in the Company's Bylaws, its Certificate of Incorporation, or elsewhere, as the case may be.

5.2 Board Expenses. The Company shall reimburse the non-employee members of the Board and Investor Board observers for all reasonable out-of-pocket travel expenses incurred in connection with attending meetings of the Board (and any committee thereof), as well as any other expenses approved by the Board in connection with their work on behalf of the Company.

5.3 Expenses of Counsel. In the event of a Deemed Liquidation Event, the reasonable fees and disbursements, not to exceed $50,000, of one counsel for the Investors, selected by a majority of the Registrable Securities then held by the Investors, ("**Investor Counsel**"), in their capacities as equityholders, shall be borne and paid by the Company. At the outset of considering a transaction which, if consummated would constitute a Deemed Liquidation Event, the Company shall obtain the ability to share with the Investor Counsel (and such counsel's clients) and shall share the confidential information (including without limitation the initial and all subsequent drafts of memoranda of understanding, letters of intent and other transaction documents and related noncompete, employment, consulting and other compensation agreements and plans) pertaining to and memorializing any of the transactions which, individually or when aggregated with others would constitute the Deemed Liquidation Event. The Company shall be obligated to share (and cause the Company's counsel and investment bankers to share) such materials when distributed to the Company's executives and/or any one or more of the other parties to such transaction(s). In the event that Investor Counsel deems it appropriate, in its reasonable discretion, to enter into a joint defense agreement or other arrangement to enhance the ability of the parties to protect their communications and other reviewed materials under the attorney client privilege, the Company shall, and shall direct its counsel to, execute and deliver to Investor Counsel and its clients such an agreement in form and substance reasonably acceptable to Investor Counsel. In the event that one or more of the other party or parties to such transactions require the clients of Investor Counsel to enter into a confidentiality agreement and/or joint defense agreement in order to receive such information, then the Company shall share whatever information can be shared without entry into such agreement and shall, at the same time, in good faith work expeditiously to enable Investor Counsel and its clients to negotiate and enter into the appropriate agreement(s) without undue burden to the clients of Investor Counsel.

5.4 Termination of Covenants. The covenants set forth in this Section 5 shall terminate and be of no further force or effect (i) immediately before the consummation of the IPO, or (ii) when the Company first becomes subject to the periodic reporting requirements of section 12(g) or 15(d) of the Exchange Act, or (iii) upon a Deemed Liquidation Event, whichever event occurs first; provided that the reimbursement obligations set forth in Sections 5.2 and 5.3 shall survive.

6. Miscellaneous.

6.1 Successors and Assigns. The rights under this Agreement may be assigned (but only with all related obligations) by a Holder to a transferee of Registrable Securities that (i) is an Affiliate of a Holder; (ii) is a Holder's Immediate Family Member or trust for the benefit of an individual Holder or one or more of such Holder's Immediate Family Members; or (iii) after such transfer, holds at least 1,000,000 units of Registrable Securities (subject to appropriate adjustment for unit splits, unit dividends, combinations, and other recapitalizations); provided, however, that (x) the Company is, within a reasonable time after such transfer, furnished with written notice of the name and address of such transferee and the Registrable Securities with respect to which such rights are being transferred; and (y) such transferee agrees in a written instrument delivered to the Company to be bound by and subject to the terms and conditions of this Agreement, including the provisions of Subsection 2.11. For the purposes of determining the number of units of Registrable Securities held by a transferee, the holdings of a transferee (1) that is an Affiliate or equityholder of a Holder; (2) who is a Holder's Immediate Family Member; or (3) that is a trust for the benefit of an individual Holder or such Holder's Immediate Family Member shall be aggregated together and with those of the transferring Holder; provided further that all transferees who would not qualify individually for assignment of rights shall have a single attorney-in-fact for the purpose of exercising any rights, receiving notices, or taking any action under this Agreement. The terms and conditions of this Agreement inure to the benefit of and are binding upon the respective successors and permitted assignees of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and permitted assignees any rights, remedies, obligations or liabilities under or by reason of this Agreement, except as expressly provided herein.

6.2 Governing Law. This Agreement shall be governed by the internal law of the State of Delaware.

6.3 Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes**.**

6.4 Titles and Subtitles. The titles and subtitles used in this Agreement are for convenience only and are not to be considered in construing or interpreting this Agreement.

6.5 Notices. All notices and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given upon the earlier of

actual receipt or: (i) personal delivery to the party to be notified; (ii) when sent, if sent by electronic mail or facsimile during the recipient's normal business hours, and if not sent during normal business hours, then on the recipient's next business day; (iii) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid; or (iv) one (1) business day after the business day of deposit with a nationally recognized overnight courier, freight prepaid, specifying next-day delivery, with written verification of receipt. All communications shall be sent to the respective parties at their address as set forth on the signature page or Exhibit A, or to such e-mail, facsimile number or address as subsequently modified by written notice given in accordance with this Section. If notice is given to the Company, a copy shall also be sent to SNR Denton US LLP, 101 JFK Parkway, Short Hills, New Jersey 07078, Attention: John L. Cleary, Esq.

6.6 Amendments and Waivers. Any term of this Agreement may be amended and the observance of any term of this Agreement may be waived (either generally or in a particular instance, and either retroactively or prospectively) only with the written consent of the Company and the holders of at least 55% of the Registrable Securities then outstanding; provided that the Company may in its sole discretion waive compliance with Subsection 2.12(c) (and the Company's failure to object promptly in writing after notification of a proposed assignment allegedly in violation of Subsection 2.12(c) shall be deemed to be a waiver); and provided further that any provision hereof may be waived by any waiving party on such party's own behalf, without the consent of any other party. Notwithstanding the foregoing, this Agreement may not be amended or terminated and the observance of any term hereof may not be waived with respect to any Investor without the written consent of such Investor, unless such amendment, termination, or waiver applies to all Investors in the same fashion. Further, this Agreement may not be amended, and no provision hereof may be waived, in each case, in any way which would adversely affect the rights of the Key Holders hereunder in a manner disproportionate to any adverse effect such amendment or waiver would have on the rights of the Investors hereunder, without also the written consent of the holders of at least a majority of the Registrable Securities held by the Key Holders. The Company shall give prompt notice of any amendment or termination hereof or waiver hereunder to any party hereto that did not consent in writing to such amendment, termination, or waiver. Any amendment, termination, or waiver effected in accordance with this Subsection 6.6 shall be binding on all parties hereto, regardless of whether any such party has consented thereto. No waivers of or exceptions to any term, condition, or provision of this Agreement, in any one or more instances, shall be deemed to be or construed as a further or continuing waiver of any such term, condition, or provision.

6.7 Severability. In case any one or more of the provisions contained in this Agreement is for any reason held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision of this Agreement, and such invalid, illegal, or unenforceable provision shall be reformed and construed so that it will be valid, legal, and enforceable to the maximum extent permitted by law.

6.8 Aggregation of Units. All Registrable Securities held or acquired by Affiliates shall be aggregated together for the purpose of determining the availability of any rights under this Agreement and such Affiliated persons may apportion such rights as among themselves in any manner they deem appropriate.

6.9 Additional Investors. Notwithstanding anything to the contrary contained herein, if the Company issues additional Series A Preferred Units after the date hereof, whether pursuant to the Purchase Agreement or otherwise, any purchaser of such Series A Preferred Units may become a party to this Agreement by executing and delivering an additional counterpart signature page to this Agreement, and thereafter shall be deemed an "Investor" for all purposes hereunder. No action or consent by the Investors shall be required for such joinder to this Agreement by such additional Investor, so long as such additional Investor has agreed in writing to be bound by all of the obligations as an "Investor" hereunder.

6.10 Entire Agreement. This Agreement (including any Schedules and Exhibits hereto) constitutes the full and entire understanding and agreement among the parties with respect to the subject matter hereof, and any other written or oral agreement relating to the subject matter hereof existing between the parties is expressly canceled.

6.11 Dispute Resolution. The parties (a) hereby irrevocably and unconditionally submit to the jurisdiction of the state courts of New York and to the jurisdiction of the United States District Court for the Southern District of New York for the purpose of any suit, action or other proceeding arising out of or based upon this Agreement, (b) agree to initially commence any suit, action or other proceeding arising out of or based upon this Agreement in the state courts of New York or the United States District Court for the Southern District of New York, and (c) hereby waive, and agree not to assert, by way of motion, as a defense, or otherwise, in any such suit, action or proceeding, any claim that it is not subject personally to the jurisdiction of the above-named courts, that its property is exempt or immune from attachment or execution, that the suit, action or proceeding is brought in an inconvenient forum, that the venue of the suit, action or proceeding is improper or that this Agreement or the subject matter hereof may not be enforced in or by such court. Each party will bear its own costs in respect of any disputes arising under this Agreement. The prevailing party shall be entitled to reasonable attorney's fees, costs, and necessary disbursements in addition to any other relief to which such party may be entitled.

WAIVER OF JURY TRIAL: EACH PARTY HEREBY WAIVES ITS RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS AGREEMENT, THE OTHER TRANSACTION DOCUMENTS, THE SECURITIES OR THE SUBJECT MATTER HEREOF OR THEREOF. THE SCOPE OF THIS WAIVER IS INTENDED TO BE ALL-ENCOMPASSING OF ANY AND ALL DISPUTES THAT MAY BE FILED IN ANY COURT AND THAT RELATE TO THE SUBJECT MATTER OF THIS TRANSACTION, INCLUDING, WITHOUT LIMITATION, CONTRACT CLAIMS, TORT CLAIMS (INCLUDING NEGLIGENCE), BREACH OF DUTY CLAIMS, AND ALL OTHER COMMON LAW AND STATUTORY CLAIMS. THIS SECTION HAS BEEN FULLY DISCUSSED BY EACH OF THE PARTIES HERETO AND THESE PROVISIONS WILL NOT BE SUBJECT TO ANY EXCEPTIONS. EACH PARTY HERETO HEREBY FURTHER WARRANTS AND REPRESENTS THAT SUCH PARTY HAS REVIEWED THIS WAIVER WITH ITS LEGAL COUNSEL, AND THAT SUCH PARTY KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS FOLLOWING CONSULTATION WITH LEGAL COUNSEL.

6.12 Delays or Omissions. No delay or omission to exercise any right, power, or remedy accruing to any party under this Agreement, upon any breach or default of any other party under this Agreement, shall impair any such right, power, or remedy of such nonbreaching or nondefaulting party, nor shall it be construed to be a waiver of or acquiescence to any such breach or default, or to any similar breach or default thereafter occurring, nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. All remedies, whether under this Agreement or by law or otherwise afforded to any party, shall be cumulative and not alternative.

6.13 Acknowledgment. The Company acknowledges that certain of the Investors are in the business of venture capital investing and therefore review the business plans and related proprietary information of many enterprises, including enterprises which may have products or services which compete directly or indirectly with those of the Company. Nothing in this Agreement shall preclude or in any way restrict the Investors from investing or participating in any particular enterprise whether or not such enterprise has products or services which compete with those of the Company.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

ELECTROCORE, LLC

By: /s/ Joseph P. Errico
Name: Joseph P. Errico
Title: Chief Executive Officer

MERCK GLOBAL HEALTH INNOVATION FUND, LLC

By: /s/ William Taranto
William Taranto
Managing Director

CONURE ELECTROCORE, LLC
By: Bio Brazil, LLC, its Manager

By: /s/ Lisa Rhoads
Lisa Rhoads
Manager

CORE VENTURES II, LLC

By: /s/ JP Errico
Managing Director

SCHEDULE A

Investors

Merck Global Health Innovation Fund, LLC
One Merck Drive, Mailstop 3E12
Whitehouse Station, NJ 08889

Conure Electrocore, LLC
c/o Easton Capital Investment Group
767 Third Avenue, 7th Floor
New York, New York 10017

Core Ventures II, LLC
101 JFK Parkway, Suite 400
Short Hills, NJ 07078

SCHEDULE B

Key Holders

Joseph P. Errico

The Errico 2010 Dynasty Trust

Dr. Thomas J. Errico

The Thomas J. Errico 2010 Family Trust

Kathryn Theofilos

NeuroCore Investment Partners, LLC

2010 Core Investment Partners, LLC

IC-1, LLC

IC-2, LLC

IC-4, LLC

Core Ventures, LLC

Exhibit 10.2

AMENDED AND RESTATED
INVESTORS' RIGHTS AGREEMENT

THIS AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT is made as of the 18th day of August 2017, by and among electroCore, LLC, a Delaware limited liability company (the "**Company**"), each of the investors listed on Schedule A hereto (each of which is referred to in this Agreement as an "**Investor"),** each of the holders of Common Units listed on Schedule B hereto (each of whom is referred to herein as a "**Key Holder**"), and any additional person that become a party to this Agreement herewith, and amends and restates that certain Investors' Rights Agreement dated as of March 28, 2013 among the Company and the other parties thereto (the "**Original Agreement**").

RECITALS

WHEREAS, the Company and certain of the Investors are parties to the Original Agreement; and

WHEREAS, in order to induce the Company to enter into the Series B Preferred Unit Purchase Agreement of even date herewith among the Company and the other parties thereto (the "**Series B Purchase Agreement**") and to induce the Investors who are party to the Series B Purchase Agreemnt to invest funds in the Company pursuant to the Series B Purchase Agreement, the Investors and the Company hereby agree to amend and restate the Original Agreement governing the rights of the Investors to cause the Company to register certain Common Units, to receive certain information from the Company, and to shall govern certain other matters as set forth in this Agreement.

NOW, THEREFORE, the parties hereby agree as follows:

1. Definitions. For purposes of this Agreement:

1.1 "**Affiliate**" means, with respect to any specified Person, any other Person who, directly or indirectly, controls, is controlled by, or is under common control with such Person, including without limitation any general partner, managing member, officer or director of such Person or any venture capital fund now or hereafter existing that is controlled by one or more general partners or managing members of, or shares the same management company with, such Person.

1.2 "**Common Units**" means the common units of the Company (or common stock of the Company if the Company is converted or otherwise becomes a corporation) with the rights, privileges, preferences and restrictions set forth in the Restated Operating Agreement.

1.3 "**Damages**" means any loss, damage, claim or liability (joint or several) to which a party hereto may become subject under the Securities Act, the Exchange Act, or other federal or state law, insofar as such loss, damage, claim or liability (or any action in respect thereof) arises out of or is based upon (i) any untrue statement or alleged untrue statement of a material fact contained in any registration statement of the Company, including any preliminary prospectus or final prospectus contained therein or any amendments or supplements thereto; (ii) an omission or alleged omission to state therein a material fact required to be stated therein, or

necessary to make the statements therein not misleading; or (iii) any violation or alleged violation by the indemnifying party (or any of its agents or Affiliates) of the Securities Act, the Exchange Act, any state securities law, or any rule or regulation promulgated under the Securities Act, the Exchange Act, or any state securities law.

1.4 "**Derivative Securities**" means any securities or rights convertible into, or exercisable or exchangeable for (in each case, directly or indirectly)**,** Common Units, including options and warrants.

1.5 "**Exchange Act**" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

1.6 "**Excluded Registration**" means (i) a registration relating to the sale of securities to employees of the Company or a subsidiary pursuant to a stock or unit option, stock or unit purchase, or similar plan; (ii) a registration relating to an SEC Rule 145 transaction; (iii) a registration on any form that does not include substantially the same information as would be required to be included in a registration statement covering the sale of the Registrable Securities; or (iv) a registration in which the only Common Units being registered are Common Units issuable upon conversion of debt securities that are also being registered.

1.7 "**Finance Committee**" means the Finance Committee of the Company's Board of Managers (the "**Board**") constituted and operating in accordance with the Restated Operating Agreement.

1.8 "**Form S-1**" means such form under the Securities Act as in effect on the date hereof or any successor registration form under the Securities Act subsequently adopted by the SEC.

1.9 "**Form S-3**" means such form under the Securities Act as in effect on the date hereof or any successor registration form under the Securities Act subsequently adopted by the SEC that permits incorporation of substantial information by reference to other documents filed by the Company with the SEC.

1.10 "**GAAP**" means generally accepted accounting principles in the United States.

1.11 "**Holder**" means any Investor who holds Registrable Securities and who is a party to this Agreement; provided that for purposes of Section 2.2 (and other associated Sections to the extent they govern procedures related to Section 2.2), Holders shall be deemed to include the Key Holders.

1.12 "**Immediate Family Member**" means a child, stepchild, grandchild, parent, stepparent, grandparent, spouse, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, including adoptive relationships, of a natural person referred to herein.

1.13 "**Initiating Holders**" means, collectively, Holders who properly initiate a registration request under this Agreement.

1.14 "**Investor**" shall have the meaning set forth in the preamble to this Agreement.

1.15 "**IPO**" means the Company's first underwritten public offering of its Common Units under the Securities Act.

1.16 "**Key Holder Registrable Securities**" means (i) all Common Units held by the Key Holders, and (ii) any Common Unit issued as (or issuable upon the conversion or exercise of any warrant, right, or other security that is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of such units.

1.17 "**New Securities**" means, collectively, equity securities of the Company, whether or not currently authorized, as well as rights, options, or warrants to purchase such equity securities, or securities of any type whatsoever that are, or may become, convertible or exchangeable into or exercisable for such equity securities.

1.18 "**Person**" means any individual, corporation, partnership, trust, limited liability company, association or other entity.

1.19 " **Preferred Units**" means, collectively, the Series A Preferred Units and the Series B Preferred Units.

1.20 "**Registrable Securities**" means (i) the Units issuable or issued upon conversion of the Preferred Units; (ii) any Common Units, or any Common Units issued or issuable (directly or indirectly) upon conversion and/or exercise of any other securities of the Company**,** acquired by the Investors after the date hereof; (iii) the Key Holder Registrable Securities; and (iv) any Common Units issued as (or issuable upon the conversion or exercise of any warrant, right, or other security that is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of, the units referenced in clauses (i) and (ii) above; excluding for purposes of Section 2 any units for which registration rights have terminated pursuant to Subsection 2.13 of this Agreement.

1.21 "**Registrable Securities then outstanding**" means the number of units determined by adding the number of outstanding Common Units that are Registrable Securities and the number of Common Units issuable (directly or indirectly) pursuant to then exercisable and/or convertible securities that are Registrable Securities.

1.22 "**Restated Operating Agreement**" means the Second Amended and Restated Limited Liability Company Agreement of the Company dated as of August 18, 2017, as such agreement may be further amended and/or restated from time to time.

1.23 "**Restricted Securities**" means the securities of the Company required to bear the legend set forth in Subsection 2.12(b) hereof.

1.24 "**SEC**" means the Securities and Exchange Commission.

1.25 "**SEC Rule 144**" means Rule 144 promulgated by the SEC under the Securities Act.

1.26 "**SEC Rule 145**" means Rule 145 promulgated by the SEC under the Securities Act.

1.27 "**Securities Act**" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

1.28 "**Selling Expenses**" means all underwriting discounts, selling commissions, and unit transfer taxes applicable to the sale of Registrable Securities, and fees and disbursements of counsel for any Holder, except for the fees and disbursements of the Selling Holder Counsel borne and paid by the Company as provided in Subsection 2.6.

1.29 "**Series A Preferred Units**" means the Company's Series A Preferred Units or shares of Series A or other preferred stock received in respect of the Series A Preferred Units if the Company is converted or otherwise becomes a corporation.

1.30 "**Series B Preferred Units**" means the Company's Series B Preferred Units or shares of Series B or other preferred stock received in respect of the Series B Preferred Units if the Company is converted or otherwise becomes a corporation.

1.31 "**Units**" means, collectively, the Common Units and the Preferred Units.

2. Registration Rights. The Company covenants and agrees as follows:

2.1 Demand Registration.

(a) Form S-1 Demand. If at any time after the earlier of (i) five (5) years after the date of this Agreement or (ii) one hundred eighty (180) days after the effective date of the registration statement for the IPO, the Company receives a request from Holders of forty five percent (45%) in the case of clause (i) or fifty-five percent (55%) in the case of clause (ii) of the Registrable Securities then outstanding that the Company file a Form S-1 registration statement with respect to at least forty percent (40%) of the Registrable Securities then outstanding (or a lesser percent if the anticipated aggregate offering price, net of Selling Expenses, would exceed $5 million), then the Company shall (x) within ten (10) days after the date such request is given, give notice thereof (the "**Demand Notice**") to all Holders other than the Initiating Holders; and (y) as soon as practicable, and in any event within sixty (60) days after the date such request is given by the Initiating Holders, file a Form S-1 registration statement under the Securities Act covering all Registrable Securities that the Initiating Holders requested to be registered and any additional Registrable Securities requested to be included in such registration by any other Holders, as specified by notice given by each such Holder to the Company within twenty (20) days of the date the Demand Notice is given, and in each case, subject to the limitations of Subsection 2.1(c) and Subsection 2.3.

(b) Form S-3 Demand. If at any time when it is eligible to use a Form S-3 registration statement, the Company receives a request from Holders of at least twenty percent (20%) of the Registrable Securities then outstanding that the Company file a Form S-3 registration statement with respect to outstanding Registrable Securities of such Holders having an anticipated aggregate offering price, net of Selling Expenses, of at least $500,000, then the Company shall (i) within ten (10) days after the date such request is given, give a Demand

Notice to all Holders other than the Initiating Holders; and (ii) as soon as practicable, and in any event within forty-five (45) days after the date such request is given by the Initiating Holders, file a Form S-3 registration statement under the Securities Act covering all Registrable Securities requested to be included in such registration by any other Holders, as specified by notice given by each such Holder to the Company within twenty (20) days of the date the Demand Notice is given, and in each case, subject to the limitations of Subsection 2.1(c) and Subsection 2.3.

(c) Notwithstanding the foregoing obligations, if the Company furnishes to Holders requesting a registration pursuant to this Subsection 2.1 a certificate signed by the Company's chief executive officer stating that in the good faith judgment of the Company's Board of Directors it would be materially detrimental to the Company and its equityholders for such registration statement to either become effective or remain effective for as long as such registration statement otherwise would be required to remain effective, because such action would (i) materially interfere with a significant acquisition, corporate reorganization, or other similar transaction involving the Company; (ii) require premature disclosure of material information that the Company has a bona fide business purpose for preserving as confidential; or (iii) render the Company unable to comply with requirements under the Securities Act or Exchange Act, then the Company shall have the right to defer taking action with respect to such filing, and any time periods with respect to filing or effectiveness thereof shall be tolled correspondingly, for a period of not more than ninety (90) days after the request of the Initiating Holders is given; provided, however, that the Company may not invoke this right more than once in any twelve (12) month period ; and provided further that the Company shall not register any securities for its own account or that of any other equityholder during such ninety (90) day period other than an Excluded Registration.

(d) The Company shall not be obligated to effect, or to take any action to effect, any registration pursuant to Subsection 2.1(a)(i) during the period that is sixty (60) days before the Company's good faith estimate of the date of filing of, and ending on a date that is one hundred eighty (180) days after the effective date of, a Company-initiated registration, provided, that the Company is actively employing in good faith commercially reasonable efforts to cause such registration statement to become effective; (ii) after the Company has effected three registrations pursuant to Subsection 2.1(a); or (iii) if the Initiating Holders propose to dispose of Registrable Securities that may be immediately registered on Form S-3 pursuant to a request made pursuant to Subsection 2.1(b). The Company shall not be obligated to effect, or to take any action to effect, any registration pursuant to Subsection 2.1(b) (i) during the period that is thirty (30) days before the Company's good faith estimate of the date of filing of, and ending on a date that is ninety (90) days after the effective date of, a Company-initiated registration, provided, that the Company is actively employing in good faith commercially reasonable efforts to cause such registration statement to become effective; or (ii) if the Company has effected two registrations pursuant to Subsection 2.1(b) within the twelve (12) month period immediately preceding the date of such request. A registration shall not be counted as "effected" for purposes of this Subsection 2.1(d) until such time as the applicable registration statement has been declared effective by the SEC, unless the Initiating Holders withdraw their request for such registration, elect not to pay the registration expenses therefor, and forfeit their right to one demand registration statement pursuant to Subsection 2.6, in which case such withdrawn registration statement shall be counted as "effected" for purposes of this Subsection 2.1(d).

2.2 Company Registration. If the Company proposes to register (including, for this purpose, a registration effected by the Company for equityholders other than the Holders) any of its Common Units under the Securities Act in connection with the public offering of such securities solely for cash (other than in an Excluded Registration), the Company shall, at such time, promptly give each Holder notice of such registration. Upon the request of each Holder given within twenty (20) days after such notice is given by the Company, the Company shall, subject to the provisions of Subsection 2.3, cause to be registered all of the Registrable Securities that each such Holder has requested to be included in such registration. The Company shall have the right to terminate or withdraw any registration initiated by it under this Subsection 2.2 before the effective date of such registration, whether or not any Holder has elected to include Registrable Securities in such registration. The expenses (other than Selling Expenses) of such withdrawn registration shall be borne by the Company in accordance with Subsection 2.6.

2.3 Underwriting Requirements.

(a) If, pursuant to Subsection 2.1, the Initiating Holders intend to distribute the Registrable Securities covered by their request by means of an underwriting, they shall so advise the Company as a part of their request made pursuant to Subsection 2.1, and the Company shall include such information in the Demand Notice. The underwriter(s) will be selected by the Company and shall be reasonably acceptable to a majority in interest of the Initiating Holders. In such event, the right of any Holder to include such Holder's Registrable Securities in such registration shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting to the extent provided herein. All Holders proposing to distribute their securities through such underwriting shall (together with the Company as provided in Subsection 2.4(e)) enter into an underwriting agreement in customary form with the underwriter(s) selected for such underwriting. Notwithstanding any other provision of this Subsection 2.3, if the managing underwriter(s) advise(s) the Initiating Holders in writing that marketing factors require a limitation on the number of securities to be underwritten, then the Initiating Holders shall so advise all Holders of Registrable Securities that otherwise would be underwritten pursuant hereto, and the number of Registrable Securities that may be included in the underwriting shall be allocated among such Holders of Registrable Securities, including the Initiating Holders, in proportion (as nearly as practicable) to the number of Registrable Securities owned by each Holder or in such other proportion as shall mutually be agreed to by all such selling Holders; provided, however, that the number of Registrable Securities held by the Holders to be included in such underwriting shall not be reduced unless all other securities are first entirely excluded from the underwriting. To facilitate the allocation of units in accordance with the above provisions, the Company or the underwriters may round the number of units allocated to any Holder to the nearest 100 units.

(b) In connection with any offering involving an underwriting of the Company's securities pursuant to Subsection 2.2, the Company shall not be required to include any of the Holders' Registrable Securities in such underwriting unless the Holders accept the terms of the underwriting as agreed upon between the Company and its underwriters, and then only in such quantity as the underwriters in their sole discretion determine will not jeopardize the success of the offering by the Company. If the total number of securities, including Registrable Securities, requested by equityholders to be included in such offering exceeds the number of

securities to be sold (other than by the Company) that the underwriters in their reasonable discretion determine is compatible with the success of the offering, then the Company shall be required to include in the offering only that number of such securities, including Registrable Securities, which the underwriters and the Company in their sole discretion determine will not jeopardize the success of the offering. If the underwriters determine that less than all of the Registrable Securities requested to be registered can be included in such offering, then the Registrable Securities that are included in such offering shall be allocated among the selling Holders in proportion (as nearly as practicable to) the number of Registrable Securities owned by each selling Holder or in such other proportions as shall mutually be agreed to by all such selling Holders. To facilitate the allocation of units in accordance with the above provisions, the Company or the underwriters may round the number of units allocated to any Holder to the nearest 100 units. Notwithstanding the foregoing, in no event shall (i) the number of Registrable Securities included in the offering be reduced unless all other securities (other than securities to be sold by the Company) are first entirely excluded from the offering, and (ii) the number of Registrable Securities included in the offering be reduced below thirty percent (30%) of the total number of securities included in such offering, unless such offering is the IPO, in which case the selling Holders may be excluded further if the underwriters make the determination described above and no other equityholder's securities are included in such offering. For purposes of the provision in this Subsection 2.3(b) concerning apportionment, for any selling Holder that is a partnership, limited liability company, or corporation, the partners, members, retired partners, retired members, equityholders, and Affiliates of such Holder, or the estates and Immediate Family Members of any such partners, retired partners, members, and retired members and any trusts for the benefit of any of the foregoing Persons, shall be deemed to be a single "selling Holder," and any pro rata reduction with respect to such "selling Holder" shall be based upon the aggregate number of Registrable Securities owned by all Persons included in such "selling Holder," as defined in this sentence.

(c) For purposes of Subsection 2.1, a registration shall not be counted as "effected" if, as a result of an exercise of the underwriter's cutback provisions in Subsection 2.3(a), fewer than fifty percent (50%) of the total number of Registrable Securities that Holders have requested to be included in such registration statement are actually included.

2.4 Obligations of the Company. Whenever required under this Section 2 to effect the registration of any Registrable Securities, the Company shall, as expeditiously as reasonably possible:

(a) prepare and file with the SEC a registration statement with respect to such Registrable Securities and use its best efforts to cause such registration statement to become effective and, upon the request of the Holders of a majority of the Registrable Securities registered thereunder, keep such registration statement effective for a period of up to one hundred twenty (120) days or, if earlier, until the distribution contemplated in the registration statement has been completed; provided, however, that (i) such one hundred twenty (120) day period shall be extended for a period of time equal to the period the Holder refrains, at the request of an underwriter of Common Units (or other securities) of the Company, from selling any securities included in such registration, and (ii) in the case of any registration of Registrable Securities on Form S-3 that are intended to be offered on a continuous or delayed basis, subject to compliance with applicable SEC rules, such one hundred twenty (120) day period shall be extended for up to thirty (30) days, if necessary, to keep the registration statement effective until all such Registrable Securities are sold;

(b) prepare and file with the SEC such amendments and supplements to such registration statement, and the prospectus used in connection with such registration statement, as may be necessary to comply with the Securities Act in order to enable the disposition of all securities covered by such registration statement;

(c) furnish to the selling Holders such numbers of copies of a prospectus, including a preliminary prospectus, as required by the Securities Act, and such other documents as the Holders may reasonably request in order to facilitate their disposition of their Registrable Securities;

(d) use its commercially reasonable efforts to register and qualify the securities covered by such registration statement under such other securities or blue-sky laws of such jurisdictions as shall be reasonably requested by the selling Holders; provided that the Company shall not be required to qualify to do business or to file a general consent to service of process in any such states or jurisdictions, unless the Company is already subject to service in such jurisdiction and except as may be required by the Securities Act;

(e) in the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the underwriter(s) of such offering;

(f) use its commercially reasonable efforts to cause all such Registrable Securities covered by such registration statement to be listed on a national securities exchange or trading system and each securities exchange and trading system (if any) on which similar securities issued by the Company are then listed;

(g) provide a transfer agent and registrar for all Registrable Securities registered pursuant to this Agreement and provide a CUSIP number for all such Registrable Securities, in each case not later than the effective date of such registration;

(h) promptly make available for inspection by the selling Holders, any managing underwriter(s) participating in any disposition pursuant to such registration statement, and any attorney or accountant or other agent retained by any such underwriter or selected by the selling Holders, all financial and other records, pertinent corporate documents, and properties of the Company, and cause the Company's officers, directors, employees, and independent accountants to supply all information reasonably requested by any such seller, underwriter, attorney, accountant, or agent, in each case, as necessary or advisable to verify the accuracy of the information in such registration statement and to conduct appropriate due diligence in connection therewith;

(i) notify each selling Holder, promptly after the Company receives notice thereof, of the time when such registration statement has been declared effective or a supplement to any prospectus forming a part of such registration statement has been filed; and

(j) after such registration statement becomes effective, notify each selling Holder of any request by the SEC that the Company amend or supplement such registration statement or prospectus.

In addition, the Company shall ensure that, at all times after any registration statement covering a public offering of securities of the Company under the Securities Act shall have become effective, its insider trading policy shall provide that the Company's directors may implement a trading program under Rule 10b5-1 of the Exchange Act.

2.5 Furnish Information. It shall be a condition precedent to the obligations of the Company to take any action pursuant to this Section 2 with respect to the Registrable Securities of any selling Holder that such Holder shall furnish to the Company such information regarding itself, the Registrable Securities held by it, and the intended method of disposition of such securities as is reasonably required to effect the registration of such Holder's Registrable Securities.

2.6 Expenses of Registration. All expenses (other than Selling Expenses) incurred in connection with registrations, filings, or qualifications pursuant to Section 2, including all registration, filing, and qualification fees; printers' and accounting fees; fees and disbursements of counsel for the Company; and the reasonable fees and disbursements of one counsel for the selling Holders ("**Selling Holder Counsel**"), shall be borne and paid by the Company; provided, however, that the Company shall not be required to pay for any expenses of any registration proceeding begun pursuant to Subsection 2.1 if the registration request is subsequently withdrawn at the request of the Holders of a majority of the Registrable Securities to be registered (in which case all selling Holders shall bear such expenses pro rata based upon the number of Registrable Securities that were to be included in the withdrawn registration), unless the Holders of a majority of the Registrable Securities agree to forfeit their right to one registration pursuant to Subsection 2.1(a) or Subsection 2.1(b), as the case may be; provided further that if, at the time of such withdrawal, the Holders shall have learned of a material adverse change in the condition, business, or prospects of the Company from that known to the Holders at the time of their request and have withdrawn the request with reasonable promptness after learning of such information then the Holders shall not be required to pay any of such expenses and shall not forfeit their right to one registration pursuant toSubsection 2.1(a) or Subsection 2.1(b). All Selling Expenses relating to Registrable Securities registered pursuant to this Section 2 shall be borne and paid by the Holders pro rata on the basis of the number of Registrable Securities registered on their behalf.

2.7 Delay of Registration. No Holder shall have any right to obtain or seek an injunction restraining or otherwise delaying any registration pursuant to this Agreement as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 2.

2.8 Indemnification. If any Registrable Securities are included in a registration statement under this Section 2:

(a) To the extent permitted by law, the Company will indemnify and hold harmless each selling Holder, and the partners, members, officers, directors, and

equityholders of each such Holder; legal counsel and accountants for each such Holder; any underwriter (as defined in the Securities Act) for each such Holder; and each Person, if any, who controls such Holder or underwriter within the meaning of the Securities Act or the Exchange Act, against any Damages, and the Company will pay to each such Holder, underwriter, controlling Person, or other aforementioned Person any legal or other expenses reasonably incurred thereby in connection with investigating or defending any claim or proceeding from which Damages may result, as such expenses are incurred; provided, however, that the indemnity agreement contained in this Subsection 2.8(a) shall not apply to amounts paid in settlement of any such claim or proceeding if such settlement is effected without the consent of the Company, which consent shall not be unreasonably withheld, nor shall the Company be liable for any Damages to the extent that they arise out of or are based upon actions or omissions made in reliance upon and in conformity with written information furnished by or on behalf of any such Holder, underwriter, controlling Person, or other aforementioned Person expressly for use in connection with such registration.

(b) To the extent permitted by law, each selling Holder, severally and not jointly, will indemnify and hold harmless the Company, and each of its directors, each of its officers who has signed the registration statement, each Person (if any), who controls the Company within the meaning of the Securities Act, legal counsel and accountants for the Company, any underwriter (as defined in the Securities Act), any other Holder selling securities in such registration statement, and any controlling Person of any such underwriter or other Holder, against any Damages, in each case only to the extent that such Damages arise out of or are based upon actions or omissions made in reliance upon and in conformity with written information furnished by or on behalf of such selling Holder expressly for use in connection with such registration; and each such selling Holder will pay to the Company and each other aforementioned Person its proportionate share of any legal or other expenses reasonably incurred thereby in connection with investigating or defending any claim or proceeding from which Damages may result, as such expenses are incurred; provided, however, that the indemnity agreement contained in this Subsection 2.8(b) shall not apply to amounts paid in settlement of any such claim or proceeding if such settlement is effected without the consent of the Holder, which consent shall not be unreasonably withheld; and provided further that in no event shall the aggregate amounts payable by any Holder by way of indemnity or contribution under Subsections 2.8(b) and 2.8(d) exceed the proceeds from the offering received by such Holder (net of any Selling Expenses paid by such Holder), except in the case of fraud or willful misconduct by such Holder.

(c) Promptly after receipt by an indemnified party under this Subsection 2.8 of notice of the commencement of any action (including any governmental action) for which a party may be entitled to indemnification hereunder, such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Subsection 2.8, give the indemnifying party notice of the commencement thereof. The indemnifying party shall have the right to participate in such action and, to the extent the indemnifying party so desires, participate jointly with any other indemnifying party to which notice has been given, and to assume the defense thereof with counsel mutually satisfactory to the parties; provided, however, that an indemnified party (together with all other indemnified parties that may be represented without conflict by one counsel) shall have the right to retain one separate counsel, with the fees and expenses to be paid by the indemnifying party, if

representation of such indemnified party by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests between such indemnified party and any other party represented by such counsel in such action. The failure to give notice to the indemnifying party within a reasonable time of the commencement of any such action shall relieve such indemnifying party of any liability to the indemnified party under this Subsection 2.8, to the extent that such failure materially prejudices the indemnifying party's ability to defend such action. The failure to give notice to the indemnifying party will not relieve it of any liability that it may have to any indemnified party otherwise than under this Subsection 2.8.

(d) To provide for just and equitable contribution to joint liability under the Securities Act in any case in which either (i) any party otherwise entitled to indemnification hereunder makes a claim for indemnification pursuant to this Subsection 2.8 but it is judicially determined (by the entry of a final judgment or decree by a court of competent jurisdiction and the expiration of time to appeal or the denial of the last right of appeal) that such indemnification may not be enforced in such case, notwithstanding the fact that this Subsection 2.8 provides for indemnification in such case, or (ii) contribution under the Securities Act may be required on the part of any party hereto for which indemnification is provided under this Subsection 2.8, then, and in each such case, such parties will contribute to the aggregate losses, claims, damages, liabilities, or expenses to which they may be subject (after contribution from others) in such proportion as is appropriate to reflect the relative fault of each of the indemnifying party and the indemnified party in connection with the statements, omissions, or other actions that resulted in such loss, claim, damage, liability, or expense, as well as to reflect any other relevant equitable considerations. The relative fault of the indemnifying party and of the indemnified party shall be determined by reference to, among other things, whether the untrue or allegedly untrue statement of a material fact, or the omission or alleged omission of a material fact, relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information, and opportunity to correct or prevent such statement or omission; provided, however, that, in any such case, (x) no Holder will be required to contribute any amount in excess of the public offering price of all such Registrable Securities offered and sold by such Holder pursuant to such registration statement, and (y) no Person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) will be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation; and provided further that in no event shall a Holder's liability pursuant to this Subsection 2.8(d), when combined with the amounts paid or payable by such Holder pursuant to Subsection 2.8(b), exceed the proceeds from the offering received by such Holder (net of any Selling Expenses paid by such Holder**)**, except in the case of willful misconduct or fraud by such Holder.

(e) Notwithstanding the foregoing, to the extent that the provisions on indemnification and contribution contained in the underwriting agreement entered into in connection with the underwritten public offering are in conflict with the foregoing provisions, the provisions in the underwriting agreement shall control.

(f) Unless otherwise superseded by an underwriting agreement entered into in connection with the underwritten public offering, the obligations of the Company and Holders under this Subsection 2.8 shall survive the completion of any offering of Registrable Securities in a registration under this Section 2, and otherwise shall survive the termination of this Agreement.

2.9 Reports Under Exchange Act. With a view to making available to the Holders the benefits of SEC Rule 144 and any other rule or regulation of the SEC that may at any time permit a Holder to sell securities of the Company to the public without registration or pursuant to a registration on Form S-3, the Company shall:

(a) make and keep available adequate current public information, as those terms are understood and defined in SEC Rule 144, at all times after the effective date of the registration statement filed by the Company for the IPO;

(b) use commercially reasonable efforts to file with the SEC in a timely manner all reports and other documents required of the Company under the Securities Act and the Exchange Act (at any time after the Company has become subject to such reporting requirements); and

(c) furnish to any Holder, so long as the Holder owns any Registrable Securities, forthwith upon request (i) to the extent accurate, a written statement by the Company that it has complied with the reporting requirements of SEC Rule 144 (at any time after ninety (90) days after the effective date of the registration statement filed by the Company for the IPO), the Securities Act, and the Exchange Act (at any time after the Company has become subject to such reporting requirements), or that it qualifies as a registrant whose securities may be resold pursuant to Form S-3 (at any time after the Company so qualifies); (ii) a copy of the most recent annual or quarterly report of the Company and such other reports and documents so filed by the Company; and (iii) such other information as may be reasonably requested in availing any Holder of any rule or regulation of the SEC that permits the selling of any such securities without registration (at any time after the Company has become subject to the reporting requirements under the Exchange Act) or pursuant to Form S-3 (at any time after the Company so qualifies to use such form).

2.10 Limitations on Subsequent Registration Rights. From and after the date of this Agreement, the Company shall not, without the prior written consent of the Holders of at least 55% of the Registrable Securities then outstanding, enter into any agreement with any holder or prospective holder of any securities of the Company that would allow such holder or prospective holder to include such securities in any registration unless, under the terms of such agreement, such holder or prospective holder may include such securities in any such registration only to the extent that the inclusion of such securities will not reduce the number of the Registrable Securities of the Holders that are included; provided that this limitation shall not apply to any additional Investor who becomes a party to this Agreement in accordance with Subsection 6.9.

2.11 "Market Stand-off" Agreement. Each Holder hereby agrees that it will not, without the prior written consent of the managing underwriter, during the period commencing on the date of the final prospectus relating to the registration by the Company of its Common Units or any other equity securities under the Securities Act on a registration statement on Form S-1, and ending on the date specified by the Company and the managing underwriter

(such period not to exceed one hundred eighty (180) days) (i) lend; offer; pledge; sell; contract to sell; sell any option or contract to purchase; purchase any option or contract to sell; grant any option, right, or warrant to purchase; or otherwise transfer or dispose of, directly or indirectly, any Common Units or any securities convertible into or exercisable or exchangeable (directly or indirectly) for Common Units or (ii) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of such securities, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of Common Units or other securities, in cash, or otherwise. The foregoing provisions of this Subsection 2.11 shall apply only to the IPO, shall not apply to the sale of any units to an underwriter pursuant to an underwriting agreement, or the transfer of any units to any trust for the direct or indirect benefit of the Holder or the immediate family of the Holder, provided that the trustee of the trust agrees to be bound in writing by the restrictions set forth herein, and provided further that any such transfer shall not involve a disposition for value, and shall be applicable to the Holders only if all officers and directors are subject to the same restrictions and the Company uses commercially reasonable efforts to obtain a similar agreement from all equityholders individually owning more than one percent (1%) of the Company's outstanding Common Units (after giving effect to conversion into Common Units of all outstanding Preferred Units). The underwriters in connection with such registration are intended third-party beneficiaries of this Subsection 2.11 and shall have the right, power, and authority to enforce the provisions hereof as though they were a party hereto. Each Holder further agrees to execute such agreements as may be reasonably requested by the underwriters in connection with such registration that are consistent with this Subsection 2.11 or that are necessary to give further effect thereto. Any discretionary waiver or termination of the restrictions of any or all of such agreements by the Company or the underwriters shall apply pro rata to all Holders subject to such agreements, based on the number of units subject to such agreements.

2.12 Restrictions on Transfer.

(a) The Preferred Units and the Registrable Securities shall not be sold, pledged, or otherwise transferred, and the Company shall not recognize and shall issue stop-transfer instructions to its transfer agent with respect to any such sale, pledge, or transfer, except upon the conditions specified in this Agreement, which conditions are intended to ensure compliance with the provisions of the Securities Act. A transferring Holder will cause any proposed purchaser, pledgee, or transferee of the Preferred Units and the Registrable Securities held by such Holder to agree to take and hold such securities subject to the provisions and upon the conditions specified in this Agreement.

(b) Each certificate or instrument representing (i) the Preferred Units, (ii) the Registrable Securities, and (iii) any other securities issued in respect of the securities referenced in clauses (i) and (ii), upon any unit split, unit dividend, recapitalization, merger, consolidation, or similar event, shall (unless otherwise permitted by the provisions of Subsection 2.12(c)) be stamped or otherwise imprinted with a legend substantially in the following form:

> THE SECURITIES REPRESENTED HEREBY HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933. SUCH UNITS MAY NOT BE SOLD, PLEDGED, OR TRANSFERRED IN THE ABSENCE OF SUCH REGISTRATION OR A VALID EXEMPTION FROM THE REGISTRATION AND PROSPECTUS DELIVERY REQUIREMENTS OF SAID ACT.

THE SECURITIES REPRESENTED HEREBY MAY BE TRANSFERRED ONLY IN ACCORDANCE WITH THE TERMS OF AN AGREEMENT BETWEEN THE COMPANY AND THE EQUITYHOLDER, A COPY OF WHICH IS ON FILE WITH THE SECRETARY OF THE COMPANY.

The Holders consent to the Company making a notation in its records and giving instructions to any transfer agent of the Restricted Securities in order to implement the restrictions on transfer set forth in this Subsection 2.12.

(c) The holder of each certificate representing Restricted Securities, by acceptance thereof, agrees to comply in all respects with the provisions of this Section 2. Before any proposed sale, pledge, or transfer of any Restricted Securities, unless there is in effect a registration statement under the Securities Act covering the proposed transaction, the Holder thereof shall give notice to the Company of such Holder's intention to effect such sale, pledge, or transfer. Each such notice shall describe the manner and circumstances of the proposed sale, pledge, or transfer in sufficient detail and, if reasonably requested by the Company, shall be accompanied at such Holder's expense by either (i) a written opinion of legal counsel who shall, and whose legal opinion shall, be reasonably satisfactory to the Company, addressed to the Company, to the effect that the proposed transaction may be effected without registration under the Securities Act; (ii) a "no action" letter from the SEC to the effect that the proposed sale, pledge, or transfer of such Restricted Securities without registration will not result in a recommendation by the staff of the SEC that action be taken with respect thereto; or (iii) any other evidence reasonably satisfactory to counsel to the Company to the effect that the proposed sale, pledge, or transfer of the Restricted Securities may be effected without registration under the Securities Act, whereupon the Holder of such Restricted Securities shall be entitled to sell, pledge, or transfer such Restricted Securities in accordance with the terms of the notice given by the Holder to the Company. The Company will not require such a legal opinion or "no action" letter (x) in any transaction in compliance with SEC Rule 144 or (y) in any transaction in which such Holder distributes Restricted Securities to an Affiliate of such Holder for no consideration; provided that each transferee agrees in writing to be subject to the terms of this Subsection 2.12. Each certificate or instrument evidencing the Restricted Securities transferred as above provided shall bear, except if such transfer is made pursuant to SEC Rule 144, the appropriate restrictive legend set forth in Subsection 2.12(b), except that such certificate shall not bear such restrictive legend if, in the opinion of counsel for such Holder and the Company, such legend is not required in order to establish compliance with any provisions of the Securities Act.

2.13 Termination of Registration Rights. The right of any Holder to request registration or inclusion of Registrable Securities in any registration pursuant to Subsection 2.1 or Subsection 2.2 shall terminate upon the earliest to occur of:

(a) the closing of a Deemed Liquidation Event, as such term is defined in the Company's Restated Operating Agreement;

(b) such time as Rule 144 or another similar exemption under the Securities Act is available for the sale of all of such Holder's units without limitation during a three-month period without registration; and

(c) the seven year anniversary of the IPO.

3. Information and Observer Rights, Etc.

3.1 Delivery of Financial Statements. The Company shall deliver to each Investor:

(a) as soon as practicable, but in any event within ninety (90) days after the end of each fiscal year of the Company, (i) a balance sheet as of the end of such year; (ii) statements of income and of cash flows for such year; and (iii) a statement of members' (or stockholders') equity as of the end of such year, audited and certified by independent public accountants of nationally or regionally recognized standing selected by the Company;

(b) as soon as practicable, but in any event within forty five (45) days after the end of each of the first three quarters of each fiscal year of the Company, unaudited statements of income and of cash flows for such fiscal quarter and for the current fiscal year to date, and an unaudited balance sheet and a statement of members' (or stockholders') equity as of the end of such fiscal quarter, all prepared in accordance with GAAP (except that such financial statements may (i) be subject to normal year-end audit adjustments and (ii) not contain all notes thereto that may be required in accordance with GAAP);

(c) as soon as practicable, but in no event less than thirty (30) days before the end of each fiscal year, a budget and business plan for the next fiscal year;

(d) with respect to the financial statements called for in Section 3.1(a) and Section 3.1(b), an instrument executed by the chief executive officer of the Company certifying that such financial statements were prepared in accordance with GAAP consistently applied (except as otherwise set forth in Section 3.1(b); and

(e) such other information relating to the financial condition, business, prospects, or corporate affairs of the Company or its subsidiaries as any Investor may from time to time reasonably request; provided, however, that the Company shall not be obligated under this Section 3.1 to provide information (i) that the Company reasonably determines in good faith to be a trade secret or confidential information (unless covered by an enforceable confidentiality agreement, in form acceptable to the Company) or (ii) the disclosure of which would adversely affect the attorney-client privilege between the Company and its counsel.

(f) If, for any period, the Company has any subsidiary whose accounts are consolidated with those of the Company, then in respect of such period the financial statements delivered pursuant to the foregoing sections shall be the consolidated and consolidating financial statements of the Company and all such consolidated subsidiaries.

(g) Notwithstanding anything else in this Section 3.1 to the contrary, the Company may cease providing the information set forth in this Section 3.1 during the period

starting with the date sixty (60) days before the Company's good-faith estimate of the date of filing of a registration statement under the Securities Act; provided that the Company's covenants under this Section 3.1 shall be reinstated at such time as the Company is no longer actively employing its commercially reasonable efforts to cause such registration statement to become effective.

3.2 Inspection. The Company shall permit each Investor, at such Investor's expense, to visit and inspect the Company's and its subsidiaries' properties; examine its and its subsidiaries' books of account and records; and discuss the Company's and its subsidiaries' affairs, finances, and accounts with its officers, during normal business hours of the Company and its subsidiaries as may be reasonably requested by the Investor; provided, however, that the Company shall not be obligated pursuant to this Section 3.2 to provide access to any information that it reasonably considers to be a trade secret or confidential information (unless covered by an enforceable confidentiality agreement, in form acceptable to the Company) or the disclosure of which would adversely affect the attorney-client privilege between the Company and its counsel.

3.3 Termination of Information Rights. The covenants set forth in Section 3.1 and Section 3.2 shall terminate and be of no further force or effect (i) immediately before the consummation of the IPO, (ii) when the Company first becomes subject to the periodic reporting requirements of section 12(g) or 15(d) of the Exchange Act, (iii) upon a Deemed Liquidation Event, or (iv) as to any Investor, when such Investor no longer holds any equity securities of the Company, whichever event occurs first.

3.4 Confidentiality. Each Investor agrees that such Investor will keep confidential and will not disclose, divulge, or use for any purpose (other than to monitor its investment in the Company) any confidential information obtained from the Company pursuant to the terms of this Agreement (including notice of the Company's intention to file a registration statement), unless such confidential information (a) is known or becomes known to the public in general (other than as a result of a breach of this Section 3.4 by such Investor), (b) is or has been independently developed or conceived by the Investor without use of the Company's confidential information, or (c) is or has been made known or disclosed to the Investor by a third party without a breach of any obligation of confidentiality such third party may have to the Company; provided, however, that an Investor may disclose confidential information (i) to its attorneys, accountants, consultants, and other professionals in connection with monitoring its investment in the Company; (ii) to any prospective purchaser of any Registrable Securities from such Investor, if such prospective purchaser agrees to be bound by the provisions of this Section 3.4; (iii) to any Affiliate, partner, member, equityholder, or wholly owned subsidiary of such Investor in the ordinary course of business, provided that such Investor informs such Person that such information is confidential and directs such Person to maintain the confidentiality of such information; or (iv) as may otherwise be required by law, provided that the Investor promptly notifies the Company of such disclosure and takes reasonable steps to minimize the extent of any such required disclosure.

3.5 Liability Insurance; Directors' and Officers' Liability Insurance. The Company shall obtain within 30 days of the date hereof, or be an insured party beneficiary pursuant to, (i) a general liability insurance policy, a product liability insurance policy and a directors' and officers' liability insurance policy (the "**D&O Policy**"), on terms reasonably

satisfactory to the Investors, and (ii) key man life insurance on its Chief Executive Officer of not less than $3,000,000, in each such case on terms and conditions that are reasonably acceptable the Board. The Company shall maintain such policies in full force and effect at all times.

3.6 Unit Vesting; Unit Restriction Agreements. All units, profits interest, options and other equity equivalents issued after the date of this Agreement to employees, managers, consultants and other service providers in their capacities as such shall be subject to vesting on terms approved by the Board.

3.7 Reservation of Common Units. The Company shall at all times reserve and keep available, solely for issuance and delivery upon the conversion of the Preferred Units, all Common Units issuable from time to time upon such conversion.

3.8 Proprietary Rights Agreement. The Company and each of its subsidiaries shall require all employees, officers and consultants to execute and deliver an Invention Assignment, Non-Disclosure and Non-Compete Agreement in form and substance reasonably acceptable to the Board.

3.9 Managers Liability and Indemnification. The Company's and each of its subsidiaries' operating agreement and other organizational documents shall provide (a) for elimination of the liability of Managers to the maximum extent permitted by applicable law and (b) for indemnification of Managers for acts on behalf of the Company and its subsidiaries to the maximum extent permitted by applicable law.

3.10 Scientific Advissory Board. Within 90 days of the date hereof, the Company shall form a Scientific Advisory Board ("**SAB**") of at least five (5) members, of which Merck Global Health Innovation Fund, LLC, so long as it is a Member of the Company, shall have the right to appoint two (2) members. The Company shall reasonably consult with the Investor Managers (as such term is defined in the Restated Operating Agreement) with respect to other prospective members of the SAB prior to their appointment.

4. Rights to Future Equity Issuances. The Members of the Company shall have pre-emptive rights to purchase new securities issued by the Company on the terms set forth in the Restated Operating Agreement.

5. Additional Covenants.

5.1 Successor Indemnification. If the Company or any of its successors or assignees consolidates with or merges into any other Person and is not the continuing or surviving corporation or entity of such consolidation or merger, then to the extent necessary, proper provision shall be made so that the successors and assignees of the Company assume the obligations of the Company with respect to indemnification of members of the Board as in effect immediately before such transaction, whether such obligations are contained in the Company's Bylaws, its Certificate of Incorporation, or elsewhere, as the case may be.

5.2 Board Expenses. The Company shall reimburse the non-employee members of the Board and Investor Board observers for all reasonable out-of-pocket travel expenses incurred in connection with attending meetings of the Board (and any committee thereof), as well as any other expenses approved by the Board in connection with their work on behalf of the Company.

5.3 Expenses of Counsel. In the event of a Deemed Liquidation Event, the reasonable fees and disbursements, not to exceed $50,000, of one counsel for the Investors, selected by a majority of the Registrable Securities then held by the Investors, ("**Investor Counsel**"), in their capacities as equityholders, shall be borne and paid by the Company. At the outset of considering a transaction which, if consummated would constitute a Deemed Liquidation Event, the Company shall obtain the ability to share with the Investor Counsel (and such counsel's clients) and shall share the confidential information (including without limitation the initial and all subsequent drafts of memoranda of understanding, letters of intent and other transaction documents and related noncompete, employment, consulting and other compensation agreements and plans) pertaining to and memorializing any of the transactions which, individually or when aggregated with others would constitute the Deemed Liquidation Event. The Company shall be obligated to share (and cause the Company's counsel and investment bankers to share) such materials when distributed to the Company's executives and/or any one or more of the other parties to such transaction(s). In the event that Investor Counsel deems it appropriate, in its reasonable discretion, to enter into a joint defense agreement or other arrangement to enhance the ability of the parties to protect their communications and other reviewed materials under the attorney client privilege, the Company shall, and shall direct its counsel to, execute and deliver to Investor Counsel and its clients such an agreement in form and substance reasonably acceptable to Investor Counsel. In the event that one or more of the other party or parties to such transactions require the clients of Investor Counsel to enter into a confidentiality agreement and/or joint defense agreement in order to receive such information, then the Company shall share whatever information can be shared without entry into such agreement and shall, at the same time, in good faith work expeditiously to enable Investor Counsel and its clients to negotiate and enter into the appropriate agreement(s) without undue burden to the clients of Investor Counsel.

5.4 Termination of Covenants. The covenants set forth in this Section 5 shall terminate and be of no further force or effect (i) immediately before the consummation of the IPO, or (ii) when the Company first becomes subject to the periodic reporting requirements of section 12(g) or 15(d) of the Exchange Act, or (iii) upon a Deemed Liquidation Event, whichever event occurs first; provided that the reimbursement obligations set forth in Section 5.2 and Section 5.3 shall survive.

6. Miscellaneous.

6.1 Successors and Assigns. The rights under this Agreement may be assigned (but only with all related obligations) by a Holder to a transferee of Registrable Securities that (i) is an Affiliate of a Holder; (ii) is a Holder's Immediate Family Member or trust for the benefit of an individual Holder or one or more of such Holder's Immediate Family Members; or (iii) after such transfer, holds at least 1,000,000 units of Registrable Securities (subject to appropriate adjustment for unit splits, unit dividends, combinations, and other recapitalizations); provided, however, that (x) the Company is, within a reasonable time after such transfer, furnished with written notice of the name and address of such transferee and the Registrable Securities with respect to which such rights are being transferred; and (y) such

transferee agrees in a written instrument delivered to the Company to be bound by and subject to the terms and conditions of this Agreement, including the provisions of Subsection 2.11. For the purposes of determining the number of units of Registrable Securities held by a transferee, the holdings of a transferee (1) that is an Affiliate or equityholder of a Holder; (2) who is a Holder's Immediate Family Member; or (3) that is a trust for the benefit of an individual Holder or such Holder's Immediate Family Member shall be aggregated together and with those of the transferring Holder; provided further that all transferees who would not qualify individually for assignment of rights shall have a single attorney-in-fact for the purpose of exercising any rights, receiving notices, or taking any action under this Agreement. The terms and conditions of this Agreement inure to the benefit of and are binding upon the respective successors and permitted assignees of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and permitted assignees any rights, remedies, obligations or liabilities under or by reason of this Agreement, except as expressly provided herein.

6.2 Governing Law. This Agreement shall be governed by the internal law of the State of Delaware.

6.3 Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes**.**

6.4 Titles and Subtitles. The titles and subtitles used in this Agreement are for convenience only and are not to be considered in construing or interpreting this Agreement.

6.5 Notices. All notices and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given upon the earlier of actual receipt or: (i) personal delivery to the party to be notified; (ii) when sent, if sent by electronic mail or facsimile during the recipient's normal business hours, and if not sent during normal business hours, then on the recipient's next business day; (iii) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid; or (iv) one (1) business day after the business day of deposit with a nationally recognized overnight courier, freight prepaid, specifying next-day delivery, with written verification of receipt. All communications shall be sent to the respective parties at their address as set forth on the signature page or Exhibit A, or to such e-mail, facsimile number or address as subsequently modified by written notice given in accordance with this Section. If notice is given to the Company, a copy shall also be sent to Dentons US LLP, 22 Little West 12th Street, New York, NY 10014-1321, Attention: Ira Kotel, Esq.

6.6 Amendments and Waivers. Any term of this Agreement may be amended and the observance of any term of this Agreement may be waived (either generally or in a particular instance, and either retroactively or prospectively) only with Required Series B Consent (including the consent of each of Core Ventures II, LLC and Merck Merck Global Health Innovation Fund, LLC); provided that the Company may in its sole discretion waive compliance with Subsection 2.12(c) (and the Company's failure to object promptly in writing

after notification of a proposed assignment allegedly in violation of Subsection 2.12(c) shall be deemed to be a waiver); and provided further that any provision hereof may be waived by any waiving party on such party's own behalf, without the consent of any other party. Notwithstanding the foregoing, this Agreement may not be amended or terminated and the observance of any term hereof may not be waived with respect to any Investor without the written consent of such Investor, unless such amendment, termination, or waiver applies to all Investors in the same fashion. Further, this Agreement may not be amended, and no provision hereof may be waived, in each case, in any way which would adversely affect the rights of the Key Holders hereunder in a manner disproportionate to any adverse effect such amendment or waiver would have on the rights of the Investors hereunder, without also the written consent of the holders of at least a majority of the Registrable Securities held by the Key Holders. The Company shall give prompt notice of any amendment or termination hereof or waiver hereunder to any party hereto that did not consent in writing to such amendment, termination, or waiver. Any amendment, termination, or waiver effected in accordance with this Subsection 6.6 shall be binding on all parties hereto, regardless of whether any such party has consented thereto. No waivers of or exceptions to any term, condition, or provision of this Agreement, in any one or more instances, shall be deemed to be or construed as a further or continuing waiver of any such term, condition, or provision.

6.7 Severability. In case any one or more of the provisions contained in this Agreement is for any reason held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision of this Agreement, and such invalid, illegal, or unenforceable provision shall be reformed and construed so that it will be valid, legal, and enforceable to the maximum extent permitted by law.

6.8 Aggregation of Units. All Registrable Securities held or acquired by Affiliates shall be aggregated together for the purpose of determining the availability of any rights under this Agreement and such Affiliated persons may apportion such rights as among themselves in any manner they deem appropriate.

6.9 Additional Investors. Notwithstanding anything to the contrary contained herein, if the Company issues additional Preferred Units after the date hereof, whether pursuant to the Series B Purchase Agreement or otherwise, any purchaser of such Preferred Units may become a party to this Agreement by executing and delivering an additional counterpart signature page to this Agreement, and thereafter shall be deemed an "Investor" for all purposes hereunder. No action or consent by the Investors shall be required for such joinder to this Agreement by such additional Investor, so long as such additional Investor has agreed in writing to be bound by all of the obligations as an "Investor" hereunder.

6.10 Entire Agreement. This Agreement (including any Schedules and Exhibits hereto) constitutes the full and entire understanding and agreement among the parties with respect to the subject matter hereof, and any other written or oral agreement relating to the subject matter hereof existing between the parties is expressly canceled, including the Original Agreement.

6.11 Dispute Resolution. The parties (a) hereby irrevocably and unconditionally submit to the jurisdiction of the state courts of New York and to the jurisdiction

of the U.S. District Court for the Southern District of New York for the purpose of any suit, action or other proceeding arising out of or based upon this Agreement, (b) agree to initially commence any suit, action or other proceeding arising out of or based upon this Agreement in the state courts of New York or the U.S. District Court for the Southern District of New York, and (c) hereby waive, and agree not to assert, by way of motion, as a defense, or otherwise, in any such suit, action or proceeding, any claim that it is not subject personally to the jurisdiction of the above-named courts, that its property is exempt or immune from attachment or execution, that the suit, action or proceeding is brought in an inconvenient forum, that the venue of the suit, action or proceeding is improper or that this Agreement or the subject matter hereof may not be enforced in or by such court. Each party will bear its own costs in respect of any disputes arising under this Agreement. The prevailing party shall be entitled to reasonable attorney's fees, costs, and necessary disbursements in addition to any other relief to which such party may be entitled.

WAIVER OF JURY TRIAL: EACH PARTY HEREBY WAIVES ITS RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS AGREEMENT, THE OTHER TRANSACTION DOCUMENTS, THE SECURITIES OR THE SUBJECT MATTER HEREOF OR THEREOF. THE SCOPE OF THIS WAIVER IS INTENDED TO BE ALL-ENCOMPASSING OF ANY AND ALL DISPUTES THAT MAY BE FILED IN ANY COURT AND THAT RELATE TO THE SUBJECT MATTER OF THIS TRANSACTION, INCLUDING, WITHOUT LIMITATION, CONTRACT CLAIMS, TORT CLAIMS (INCLUDING NEGLIGENCE), BREACH OF DUTY CLAIMS, AND ALL OTHER COMMON LAW AND STATUTORY CLAIMS. THIS SECTION HAS BEEN FULLY DISCUSSED BY EACH OF THE PARTIES HERETO AND THESE PROVISIONS WILL NOT BE SUBJECT TO ANY EXCEPTIONS. EACH PARTY HERETO HEREBY FURTHER WARRANTS AND REPRESENTS THAT SUCH PARTY HAS REVIEWED THIS WAIVER WITH ITS LEGAL COUNSEL, AND THAT SUCH PARTY KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS FOLLOWING CONSULTATION WITH LEGAL COUNSEL.

6.12 Delays or Omissions. No delay or omission to exercise any right, power, or remedy accruing to any party under this Agreement, upon any breach or default of any other party under this Agreement, shall impair any such right, power, or remedy of such nonbreaching or nondefaulting party, nor shall it be construed to be a waiver of or acquiescence to any such breach or default, or to any similar breach or default thereafter occurring, nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. All remedies, whether under this Agreement or by law or otherwise afforded to any party, shall be cumulative and not alternative.

6.13 Acknowledgment. The Company acknowledges that certain of the Investors are in the business of venture capital investing and therefore review the business plans and related proprietary information of many enterprises, including enterprises which may have products or services which compete directly or indirectly with those of the Company. Nothing in this Agreement shall preclude or in any way restrict the Investors from investing or participating in any particular enterprise whether or not such enterprise has products or services which compete with those of the Company.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

ELECTROCORE, LLC

By: /s/ Francis R. Amato
Name: Francis R. Amato
Title: Chief Executive Officer

MERCK GLOBAL HEALTH INNOVATION FUND, LLC

By: /s/ William Taranto
William Taranto
Managing Director

CORE VENTURES II, LLC

By: /s/ Joseph P. Errico
Joseph P. Errico
Managing Director

ECNG, LLC

By: /s/ Joseph P. Errico
Joseph P. Errico
Managing Director

TULLIS OPPORTUNITY FUND II, LP

By: Its General Partner, Tullis Opportunity Fund II, LLC

By: /s/ James L.L. Tullis
Name: James L.L. Tullis
Title: Manager

SCHEDULE A

Investors

Merck Global Health Innovation Fund, LLC
One Merck Drive, Mailstop 3E12
Whitehouse Station, NJ 08889

Conure Electrocore, LLC
c/o Easton Capital Investment Group
767 Third Avenue, 7th Floor
New York, New York 10017

Core Ventures II, LLC
101 JFK Parkway, Suite 400
Short Hills, NJ 07078

Tullis Opportunity Fund II, LP
c/o Tullis Health Investors
11770 US Highway 1
Suite 503
Palm Beach Gardens, FL 33408

ECNG, LLC
150 Allen Road, Suite 201
Basking Ridge, NJ 07920

SCHEDULE B

Key Holders

Joseph P. Errico

The Errico 2010 Dynasty Trust

Dr. Thomas J. Errico

The Thomas J. Errico 2010 Family Trust

Kathryn Theofilos

NeuroCore Investment Partners, LLC

2010 Core Investment Partners, LLC

IC-1, LLC

IC-2, LLC

IC-4, LLC

Core Ventures, LLC

Exhibit 10.3

UNIT FORFEITURE AGREEMENT

This Unit Forfeiture Agreement is made as of the day of , 201 , by and between ElectroCore, LLC, a Delaware limited liability company (the "Company" or "ElectroCore"), and the Member of the Company whose name is set forth on the signature page hereto (the "Member").

WHEREAS, in connection with the Letter Agreement (as defined below), the Member is being issued Units in the Company (the "Acquired Units"); and

WHEREAS, as a condition to such issuance, all of the Acquired Units shall be subject to forfeiture by the Member to the extent such Units are deemed Unvested Units hereunder in accordance with Section 2; and

WHEREAS, the Member agrees to be bound by the forfeiture provisions with respect to the Unvested Units pursuant to the terms of this Agreement.

NOW THEREFORE, the parties agree as follows:

1. Units. ElectroCore and the Member are party to a letter agreement dated on or about the date hereof pursuant to which the Member agreed to perform certain services to the Company as provided therein (the "Letter Agreement"). In the event that the Member's service to ElectroCore pursuant to the Letter Agreement is terminated (provided that a change in status from employee to consultant shall not be deemed a termination of service for purposes of this Agreement), all or a portion of the Units will be subject to forfeiture by the Member as provided herein.

2. Forfeiture of Unvested Units.

2.1 In the event that the Member's service to ElectroCore pursuant to the Letter Agreement is terminated for any reason (including, without limitation, death, disability, termination or voluntary resignation), as of such date (the "Termination Date"), the Member shall forfeit, and have no further right, title, interest or claim in or to any of the Acquired Units which as of the Termination Date are "Unvested Units" as defined below in Section 2.2 below.

2.2 Unvested Units. For purposes of this Agreement, "Unvested Units" means the Acquired Units which, as of the Termination Date, are designated "Unvested Units" pursuant to this Section 2 after taking into account Sections 2.3 and 2.4 hereto. The term "Unvested Units" shall initially mean all of the Acquired Units; provided, that (i) on the [12] month anniversary of your employment start date with the Company one-third of the Acquired Units shall cease to be Unvested units; and (ii) thereafter, quarterly on the first day of each quarterly monthly anniversary of such date the number of Unvested Units shall be reduced by 8.33% of the total Acquired Units until there are no Unvested Units remaining; provided, however, for purposes of clauses (i) and (ii) above from and after the Termination Date, there shall be no further reductions to the number of Unvested Units hereunder (whether pursuant to Sections 2.3, 2.4 or otherwise).

2.3 Acceleration Upon a Change in Control Event. In the event of a Change in Control Event (as defined in Section 2.5 below) prior to the Termination Date, then one hundred percent (100%) percent of the Unvested Units shall cease to be, and shall no longer be deemed, Unvested Units, upon such Change in Control Event.

2.4 Acceleration Upon Death or Disability. Notwithstanding anything to the contrary in this Agreement, one hundred percent (100%) of the then Unvested Units shall cease to be, and no longer be deemed, Unvested Units hereunder immediately upon the Member's death and fifty percent (50%) of the then Unvested Units shall cease to be, and no longer be deemed, Unvested Units hereunder immediately in the event of the Member's Disability (as defined in Section 2.5 below); provided, such event occurs on or prior to the Termination Date.

2.5 Certain Defined Terms. For purposes of this Agreement:

(i) "Change in Control Event" shall mean (A) any merger or consolidation in which (x) the Company is a constituent party or (y) a subsidiary of the Company is a constituent party and the Company issues equity pursuant to such merger or consolidation (except, in the case of both clauses (x) and (y) above, any such merger or consolidation involving the Company or a subsidiary in which the equity of the Company outstanding immediately prior to such merger or consolidation continue to represent, or are converted into or exchanged for shares of capital stock or equity that represent, immediately following such merger or consolidation at least a majority, by voting power, of the outstanding capital stock or equity of (aa) the surviving or resulting entity or (bb) if the surviving or resulting entity is wholly owned by another entity immediately following such merger or consolidation, of the parent entity of such surviving or resulting entity), or (B) the sale, lease, exchange or transfer in a single transaction or series of related transactions of all or substantially all of the assets of the Company. Notwithstanding the foregoing, neither an equity or other financing for capital raising purposes nor an internal reorganization shall be deemed a Change in Control Event.

(ii) "Disability" shall mean physical or mental disability, or combination thereof, which, in the good faith judgment of the Board of Managers of the Company, renders the Member incapable of performing the Member's duties under the Letter Agreement for a cumulative period of sixty days in any consecutive twelve month period.

3. Certain Rights; Lock-up Agreement; Transfer Restrictions. (a) The Member agrees that, in the event that the Company effects any underwritten public offering of Common Stock registered under the Securities Act of 1933, none of the Acquired Units (nor any shares of capital stock received in respect thereof) nor any interest therein may be sold, offered for sale, pledged or otherwise disposed of, directly or indirectly (including through the granting of options or any hedging transactions), without the prior written consent of the managing underwriter(s) of the offering, for the same period of time after the execution of an underwriting agreement in connection with such offering, and on the same terms, that all of the Company's then directors and executive officers agree to be restricted.

(b) Subject to any restrictions contained herein and in the Operating Agreement of the Company (as amended from time to time, the "Operating Agreement"), until such time, if at all, as such Units are forfeit as provided herein, the Member may exercise all rights and privileges of a member of the Company with respect to the Acquired Units and shall be deemed to be the holder for purposes of receiving any distributions that may be paid with respect to such Units and for the purpose of exercising any voting rights relating to such Units, even if some or all of such Units have not yet vested hereunder.

(c) In addition to any other limitation on transfer created by applicable securities laws or any other agreements between the Company and the Member, the Member shall not assign, hypothecate, donate, encumber or otherwise dispose of any interest in any Unvested Units. After any Acquired Units cease to be Unvested Units, the Member shall not assign, hypothecate, donate, encumber or otherwise dispose of any interest in such Units except in compliance with the provisions herein and applicable securities laws. Furthermore, the Acquired Units shall be subject to the terms and conditions contained in the Operating Agreement.

4. Tax Consequences. The parties hereto acknowledge that the Acquired Units are intended to constitute "profits interests" for services to be rendered for federal income tax purposes and the provisions of this Agreement, the Letter Agreement and the Operating Agreement shall be interpreted consistently therewith. It is understood that in connection with the issuance of such Units pursuant to the Letter Agreement, as of the date of such issuance, the capital accounts of the other members of the Company will be adjusted in accordance with Section 6.2 of the Company's Operating Agreement based on an estimated value of the Company of $ per Unit. The effect of this revaluation is that generally, with respect to such Units, the Member will be only be entitled to his or her share of profit in the Company in excess of the fair market value of the Company as of such revaluation date. The Member understands that the Member (and not the Company) shall be responsible for the Member's own tax liability that may arise as a result of this investment or the transactions contemplated by this Agreement. The Member understands that Section 83 of the Code may apply to property received for services rendered that is subject to a substantial risk of forfeiture and that, if applicable, the amount of income includible is equal to the difference between the amount paid for the property and the fair market value of such property as of the date such restrictions lapse. The Member has reviewed with the Member's own tax advisors the federal, state, local and foreign tax consequences of his investment and the transactions contemplated by this Agreement. The Member is relying solely on such advisors and not on any statements or representations of the Company or any of its agents.

5. Remedies.

5.1 Equitable Relief. The Member acknowledges and agrees that a violation by him of any of the provisions of this Agreement will cause irreparable damage to the Company and that the Company will have no adequate remedy at law for such violation. Accordingly, the Member agrees that the Company shall be entitled as a matter of right to an injunction, specific performance, or other appropriate equitable relief from any court of competent jurisdiction, restraining any further violation of such provision or affirmatively compelling the Member to carry out his obligations hereunder. Such right to equitable relief shall be cumulative and in addition to whatever remedies the Company may have at law or in equity.

5.2 Rights of the Company. The Company shall not be required to (i) transfer on its books any Acquired Units that have been sold or transferred in contravention of this Agreement or (ii) treat as the owner of the Acquired Units, or otherwise to accord voting, dividend or liquidation rights to any transferee to whom Acquired Units have been transferred in contravention of this Agreement.

6. Miscellaneous.

6.1 Notices. All notices, requests, consents and other communications hereunder shall be in writing, shall be addressed to the receiving party's address set forth on the signature page hereto or to such other address as a party may designate by notice hereunder, and shall be either (i) delivered by hand, (ii) made by telex, telecopy or facsimile transmission, (iii) sent by recognized overnight courier or (iv) sent by registered or certified mail, return receipt requested, postage prepaid.

All notices, requests, consents and other communications hereunder shall be deemed to have been received (i) if by hand, at the time of the delivery thereof to the receiving party at the address of such party set forth above, (ii) if made by telex, telecopy or facsimile transmission, at the time that receipt thereof has been acknowledged by electronic confirmation or otherwise, (iii) if sent by overnight courier, on the next business day following the day such notice is delivered to the courier service, or (iv) if sent by registered or certified mail, on the 5th business day following the day such mailing is made.

6.2 Entire Agreement. This Agreement, together with the Letter Agreement, embodies the entire agreement and understanding between the parties hereto with respect to the subject matter hereof and supersedes all prior oral or written agreements and understandings relating to the subject matter hereof. No statement, representation, warranty, covenant or agreement of any kind not expressly set forth in this Agreement shall affect, or be used to interpret, change or restrict, the express terms and provisions of this Agreement.

6.3 Modifications. The terms and provisions of this Agreement may be modified or amended only by written agreement executed by all parties hereto.

6.4 No Waivers. No failure or delay by a party hereto in exercising any right, power or remedy under this Agreement, and no course of dealing between the parties hereto, shall operate as a waiver of any such right, power or remedy of the party.

6.5 Benefits and Obligations. This Agreement shall be binding upon and inure solely to the benefit of each party hereto and their permitted successors and assigns, and nothing in this Agreement, express or implied, is intended to confer upon any other person any rights or remedies of any nature whatsoever under or by reason of this Agreement. Except as expressly stated herein, nothing in this Agreement shall be construed to create any rights or obligations except among the parties hereto, and no person or entity shall be regarded as a third-party beneficiary of this Agreement.

6.6 Governing Law. This Agreement and the rights and obligations of the parties hereunder shall be construed in accordance with and governed by the internal law of the State of New Jersey, without giving effect to the conflict of laws principles thereof.

6.7 Construction. The parties hereto acknowledge and agree that: (i) each party and its counsel reviewed and negotiated the terms and provisions of this Agreement and have contributed to its revision; (ii) the rule of construction to the effect that any ambiguities are resolved against the drafting party shall not be employed in the interpretation of this Agreement; and (iii) the terms and provisions of this Agreement shall be construed fairly as to all parties hereto and not in favor of or against any party, regardless of which party was generally responsible for the preparation of this Agreement.

6.8 Headings. The headings and captions of the various subdivisions of this Agreement are for convenience of reference only and shall in no way modify, or affect, or be considered in construing or interpreting the meaning or construction of any of the terms or provisions hereof.

6.9 Counterparts. This Agreement may be executed in one or more counterparts, and by different parties hereto on separate counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

6.10 Severability and Reformation. The parties hereto intend all provisions of this Agreement to be enforced to the fullest extent permitted by law. If, however, any provision of this Agreement is held to be illegal, invalid, or unenforceable under any present or future law, such provision shall be fully severable, and this Agreement shall be construed and enforced as if such illegal, invalid, or unenforceable provision were never a part hereof, and the remaining provisions shall remain in full force and effect and shall not be affected by the illegal, invalid, or unenforceable provision or by its severance. Furthermore, there shall be added automatically, as a part of this Agreement, a provision as similar in terms to such illegal, invalid, or unenforceable provision as may be possible and be construed and enforced as legal, valid, and enforceable.

6.11 No Employment or Service Contract. Nothing in this Agreement shall confer upon the Member any right to remain an employee of the Company for any period of specific duration or interfere with or otherwise restrict in any way the rights of the Company or of the Member, which rights are hereby expressly reserved by each, to terminate the Member’s employment with ElectroCore at any time for any reason, with or without cause.

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IN WITNESS WHEREOF, the parties have executed this Agreement as an instrument under seal on the date first above written.

THE COMPANY:

ELECTROCORE, LLC

By: _____
Name:
Title:

THE MEMBER:

_____

Address:

ELECTROCORE, INC.
2018 OMNIBUS EQUITY INCENTIVE PLAN

TABLE OF CONTENTS

TABLE OF CONTENTS

TABLE OF CONTENTS

ELECTROCORE, INC.
2018 OMNIBUS EQUITY INCENTIVE PLAN

Article 1.
Effective Date, Objectives and Duration

1.1 Effective Date of the Plan. The Board of Directors of electroCore, Inc., a Delaware corporation (the "Company") formed upon the statutory conversion of ElectroCore, LLC from a Delaware limited liability company (the "LLC") into a Delaware corporation, adopted the 2018 Omnibus Equity Incentive Plan (the "Plan") effective as of [, 2018][1] (the "Effective Date"). The Plan was initially approved by the members of the LLC on [, 2018].

1.2 Objectives of the Plan. The Plan is intended (a) to allow selected employees of and consultants to the Company and its Affiliates to acquire or increase equity ownership in the Company, thereby strengthening their commitment to the success of the Company and stimulating their efforts on behalf of the Company, and to assist the Company and its Affiliates in attracting new employees, officers and consultants and retaining existing employees and consultants, (b) to optimize the profitability and growth of the Company and its Affiliates through incentives which are consistent with the Company's goals, (d) to provide Grantees with an incentive for excellence in individual performance, (e) to promote teamwork among employees, consultants and Non-Employee Directors, and (f) to attract and retain highly qualified persons to serve as Non-Employee Directors and to promote ownership by such Non-Employee Directors of a greater proprietary interest in the Company, thereby aligning such Non-Employee Directors' interests more closely with the interests of the Company's stockholders.

1.3 Duration of the Plan. The Plan shall commence on the Effective Date and shall remain in effect, subject to the right of the Board to amend or terminate the Plan at any time pursuant to Article 15 hereof, until the earlier of the tenth anniversary of the Effective Date, or the date all Shares subject to the Plan shall have been purchased or acquired and the restrictions on all Restricted Shares granted under the Plan shall have lapsed, according to the Plan's provisions.

Article 2.
Definitions

Whenever used in the Plan, the following terms shall have the meanings set forth below:

2.1 "Affiliate" means any corporation or other entity, including but not limited to partnerships, limited liability companies and joint ventures, with respect to which the Company, directly or indirectly, owns as applicable (a) stock possessing more than fifty percent (50%) of the total combined voting power of all classes of stock entitled to vote, or more than fifty percent (50%) of the total value of all shares of all classes of stock of such corporation, or (b) an aggregate of more than fifty percent (50%) of the profits interest or capital interest of a non-corporate entity.

2.2 "Award" means Options (including non-qualified options and Incentive Stock Options), SARs, Restricted Shares, Performance Units (which may be paid in cash), Performance Shares, Deferred Stock, Restricted Stock Units, Dividend Equivalents, Bonus Shares or Other Stock-Based Awards granted under the Plan.

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[1] To become effective immediately following the effectiveness of the Company's registration statement and the plan of conversion from a limited liability company to a corporation.

2.3 "Award Agreement" means either (a) a written agreement entered into by the Company and a Grantee setting forth the terms and provisions applicable to an Award granted under this Plan, or (b) a written statement issued by the Company to a Grantee describing the terms and provisions of such Award, including any amendment or modification thereof. The Committee may provide for the use of electronic, internet or other non-paper Award Agreements and the use of electronic, internet or other non-paper means for the acceptance thereof and actions thereunder by the Grantee.

2.4 "Board" means the Board of Directors of the Company.

2.5 "Bonus Shares" means Shares that are awarded to a Grantee with or without cost and without restrictions either in recognition of past performance (whether determined by reference to another employee benefit plan of the Company or otherwise), as an inducement to become an Eligible Person or, with the consent of the Grantee, as payment in lieu of any cash remuneration otherwise payable to the Grantee.

2.6 "Cause" means, except as otherwise defined in an Award Agreement:

(a) the commission of any act by a Grantee constituting a felony or crime of moral turpitude (or their equivalent in a non-United States jurisdiction);

(b) an act of dishonesty, fraud, intentional misrepresentation, or harassment which, as determined in good faith by the Committee, would: (i) materially adversely affect the business or the reputation of the Company or any of its Affiliates with their respective current or prospective customers, suppliers, lenders and/or other third parties with whom such entity does or might do business; or (ii) expose the Company or any of its Affiliates to a risk of civil or criminal legal damages, liabilities or penalties;

(c) any material misconduct in violation of the Company's or an Affiliate's written policies; or

(d) willful and deliberate non-performance of the Grantee's duties in connection with the business affairs of the Company or its Affiliates;

provided, *however*, that if the Grantee has a written employment or consulting agreement with the Company or any of its Affiliates or participates in any severance plan established by the Company that includes a definition of "cause," Cause shall have the meaning set forth in such employment or consulting agreement or severance plan.

2.7 "CEO" means the Chief Executive Officer of the Company.

2.8 "Change in Control" shall have the meaning set forth in Section 16.4(e).

2.9 "Code" means the Internal Revenue Code of 1986, as amended from time to time. References to a particular section of the Code include references to regulations and rulings thereunder and to successor provisions.

2.10 "Committee" or "Incentive Plan Committee" has the meaning set forth in Section 3.1(a).

2.11 "Compensation Committee" means the compensation committee of the Board.

2.12 "Common Stock" means the common stock, $0.001 par value, of the Company.

2.13 "Corporate Transaction" shall have the meaning set forth in Section 4.2(b).

2.14 "Deferred Stock" means a right, granted under Article 10, to receive Shares at the end of a specified deferral period.

2.15 “Disability” or “Disabled” means, unless otherwise defined in an Award Agreement, or as otherwise determined under procedures established by the Committee for purposes of the Plan:

(a) Except as provided in (b) below, a disability within the meaning of Section 22(e)(3) of the Code; and

(b) In the case of any Award that constitutes deferred compensation within the meaning of Section 409A of the Code, a disability as defined in regulations under Code Section 409A. For purpose of Code Section 409A, a Grantee will be considered Disabled if:

(i) the Grantee is unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or can be expected to last for a continuous period of not less than twelve (12) months, or

(ii) the Grantee is, by reason of any medically determinable physical or mental impairment which can be expected to result in death or can be expected to last for a continuous period of not less than twelve (12) months, receiving income replacement benefits for a period of not less than three (3) months under an accident and health plan covering employees of the Grantee’s employer.

2.16 “Dividend Equivalent” means a right to receive payments equal to dividends or property, if and when paid or distributed, on a specified number of Shares.

2.17 “Effective Date” has the meaning set forth in Section 1.1.

2.18 “Eligible Person” means any individual who is an employee (including any officer) of, a non-employee consultant to, or a Non-Employee Director of, the Company or any Affiliate; provided, however, that solely with respect to the grant of an Incentive Stock Option, an Eligible Person shall be any employee (including any officer) of the Company or any Subsidiary Corporation. Notwithstanding the foregoing, an Eligible Person shall also include an individual who is expected to become an employee to, non-employee consultant of or Non-Employee Director of the Company or any Affiliate within a reasonable period of time after the grant of an Award (other than an Incentive Stock Option); provided that any Award granted to any such individual shall be automatically terminated and cancelled without consideration if the individual does not begin performing services for the Company or any Affiliate within twelve (12) months after the Grant Date. Solely for purposes of Section 5.6(b), current or former employees or non-employee directors of, or consultants to, of an Acquired Entity who receive Substitute Awards in substitution for Acquired Entity Awards shall be considered Eligible Persons under this Plan with respect to such Substitute Awards.

2.19 “Exchange Act” means the Securities Exchange Act of 1934, as amended from time to time. References to a particular section of the Exchange Act include references to successor provisions.

2.20 “Exercise Price” means (a) with respect to an Option, the price at which a Share may be purchased by a Grantee pursuant to such Option or (b) with respect to an SAR, the price established at the time an SAR is granted pursuant to Article 7, which is used to determine the amount, if any, of the payment due to a Grantee upon exercise of the SAR.

2.21 “Fair Market Value” of a Share means a price that is based on the opening, closing, actual, high, low, or the arithmetic mean of selling prices of a Share reported on an established stock exchange which is the principal exchange upon which the Shares are traded on the applicable date or the preceding trading day. Unless the Committee determines otherwise, if the Shares are traded over the counter at the time a determination of its Fair Market Value is required to be made hereunder, Fair Market Value shall be deemed to be equal to the arithmetic mean between the reported high and low or closing bid and asked prices of a Share on the applicable date, or if no such trades were made that day then the most recent date on which Shares were publicly traded. In the event Shares are not publicly traded at the

time a determination of their value is required to be made hereunder, the determination of their Fair Market Value shall be made by the Committee in such manner as it deems appropriate provided such manner is consistent with Treasury Regulation Section 1.409A-1(b)(5)(iv)(B).

2.22 "Grant Date" means the date on which an Award is granted or such later date as specified in advance by the Committee.

2.23 "Grantee" means a person who has been granted an Award.

2.24 "Incentive Stock Option" means an Option that is intended to meet the requirements of Section 422 of the Code.

2.25 "Including" or "includes" means "including, without limitation," or "includes, without limitation," respectively.

2.26 "Management Committee" has the meaning set forth in Section 3.1(b).

2.27 "Non-Employee Director" means a member of the Board who is not an employee of the Company or any Affiliate.

2.28 "Option" means an option granted under Article 6 of the Plan.

2.29 "Other Stock-Based Award" means a right, granted under Article 13 hereof, that relates to or is valued by reference to Shares or other Awards relating to Shares.

2.30 "Performance Period" means, with respect to an Award of Performance Shares or Performance Units, the period of time during which the performance vesting conditions applicable to such Award must be satisfied.

2.31 "Performance Share" and "Performance Unit" have the respective meanings set forth in Article 9.

2.32 "Period of Restriction" means the period during which Restricted Shares are subject to forfeiture if the conditions specified in the Award Agreement are not satisfied.

2.33 "Person" means any individual, sole proprietorship, partnership, joint venture, limited liability company, trust, unincorporated organization, association, corporation, institution, public benefit corporation, entity or government instrumentality, division, agency, body or department.

2.34 "Restricted Shares" means Shares, granted under Article 8, that are both subject to forfeiture and are nontransferable if the Grantee does not satisfy the conditions specified in the Award Agreement applicable to such Shares.

2.35 "Restricted Stock Units" are rights, granted under Article 10, to receive Shares if the Grantee satisfies the conditions specified in the Award Agreement applicable to such rights.

2.36 "Rule 16b-3" means Rule 16b-3 promulgated by the SEC under the Exchange Act, as amended from time to time, together with any successor rule.

2.37 "SEC" means the United States Securities and Exchange Commission, or any successor thereto.

2.38 "Section 16 Non-Employee Director" means a member of the Board who satisfies the requirements to qualify as a "non-employee director" under Rule 16b-3.

2.39 “Section 16 Person” means a person who is subject to potential liability under Section 16(b) of the Exchange Act with respect to transactions involving equity securities of the Company.

2.40 “Separation from Service” means, with respect to any Award that constitutes deferred compensation within the meaning of Code Section 409A, a “separation from service” as defined in Treasury Regulation Section 1.409A-1(h). For this purpose, a “separation from service” is deemed to occur on the date that the Company and the Grantee reasonably anticipate that the level of bona fide services the Grantee would perform for the Company and/or any Affiliates after that date (whether as an employee, Non-Employee Director or consultant or independent contractor) would permanently decrease to a level that, based on the facts and circumstances, would constitute a separation from service; provided that a decrease to a level that is 50% or more of the average level of bona fide services provided over the prior 36 months shall not be a separation from service, and a decrease to a level that is 20% or less of the average level of such bona fide services shall be a separation from service. The Committee retains the right and discretion to specify, and may specify, whether a separation from service occurs with respect to those individuals who are performing services for the Company or an Affiliate immediately prior to an asset purchase transaction in which the Company or an Affiliate is the seller and who continue to perform services for the buyer (or an affiliate thereof) immediately following such asset purchase transaction; provided, such specification is made in accordance with the requirements of Treasury Regulation Section 1.409A-1(h)(4).

2.41 “Share” means a share of Common Stock, and such other securities of the Company, as may be substituted or resubstituted for Shares pursuant to Section 4.2 hereof.

2.42 “Stock Appreciation Right” or “SAR” means an Award granted under Article 7 of the Plan.

2.43 “Subsidiary Corporation” means a corporation other than the Company in an unbroken chain of corporations beginning with the Company if, at the time of granting the Option, each of the corporations other than the last corporation in the unbroken chain owns stock possessing 50% or more of the total combined voting power of all classes of stock in one of the other corporations in such chain.

2.44 “Surviving Company” means (a) the surviving corporation in any merger, consolidation or similar transaction, involving the Company (including the Company if the Company is the surviving corporation), (b) or the direct or indirect parent company of such surviving corporation or (c) the direct or indirect parent company of the Company following a sale of substantially all of the outstanding stock of the Company.

2.45 “Term” of any Option or SAR means the period beginning on the Grant Date of an Option or SAR and ending on the date such Option or SAR expires, terminates or is cancelled. No Option or SAR granted under this Plan shall have a Term exceeding 10 years

2.46 “Termination of Affiliation” occurs on the first day on which an individual is for any reason no longer performing services for the Company or any Affiliate in the capacity of an employee of, a non-employee consultant to, or a Non-Employee Director of, the Company or any Affiliate or with respect to an individual who is an employee of, a non-employee consultant to or a Non-Employee Director of an Affiliate, the first day on which such entity ceases to be an Affiliate of the Company unless such individual continues to perform Services for the Company or another Affiliate without interruption after such entity ceases to be an Affiliate. Notwithstanding the foregoing, if an Award constitutes deferred compensation within the meaning of Code Section 409A, Termination of Affiliation with respect to such Award shall mean the Grantee’s Separation from Service.

Article 3.
Administration

3.1 Committee.

(a) Subject to Article 14, and to Section 3.2, the Plan shall be administered by a Committee (the "Incentive Plan Committee" or the "Committee") of directors of the Company appointed by the Board from time to time. Notwithstanding the foregoing, either the Board or the Compensation Committee may at any time and in one or more instances reserve administrative powers to itself as the Committee or exercise any of the administrative powers of the Committee. The number of members of the Committee may from time to time be increased or decreased as the Board or Compensation Committee deems appropriate. To the extent the Board or Compensation Committee considers it desirable to comply with Rule 16b-3, the Committee shall consist of two or more directors of the Company, all of whom qualify as Section 16 Non-Employee Directors.

(b) The Board or the Compensation Committee may appoint and delegate to another committee ("Management Committee"), or to the CEO, any or all of the authority of the Board or the Committee, as applicable, with respect to Awards to Grantees other than Grantees who are executive officers, Non-Employee Directors, or Section 16 Persons at the time any such delegated authority is exercised.

(c) Unless the context requires otherwise, any references herein to "Committee" include references to the Incentive Plan Committee, the Board or the Compensation Committee to the extent Incentive Plan Committee, the Board or the Compensation Committee, as applicable, has assumed or exercises administrative powers itself as the Committee pursuant to subsection (a), and to the Management Committee or the CEO to the extent either has been delegated authority pursuant to subsection (b), as applicable; provided that (i) for purposes of Awards to Non-Employee Directors, "Committee" shall include only the full Board, and (ii) for purposes of Awards intended to comply with Rule 16b-3, the "Committee" shall include only the Incentive Plan Committee or the Compensation Committee.

3.2 Powers of Committee. Subject to and consistent with the provisions of the Plan (including Article 14), the Committee has full and final authority and sole discretion as follows; provided that any such authority or discretion exercised with respect to a specific Non-Employee Director shall be approved by the affirmative vote of a majority of the members of the Board, even if not a quorum, but excluding the Non-Employee Director with respect to whom such authority or discretion is exercised:

(a) to determine when, to whom and in what types and amounts Awards should be granted;

(b) to grant Awards to Eligible Persons in any number and to determine the terms and conditions applicable to each Award (including the number of Shares or the amount of cash or other property to which an Award will relate, any Exercise Price or purchase price, any limitation or restriction, any schedule for or performance conditions relating to the earning of the Award or the lapse of limitations, forfeiture restrictions, restrictions on exercisability or transferability, any performance goals including those relating to the Company and/or an Affiliate and/or any division thereof and/or an individual, and/or vesting based on the passage of time, based in each case on such considerations as the Committee shall determine);

(c) to determine the benefit payable under any Performance Unit, Performance Share, Dividend Equivalent, Other Stock-Based Award or Cash Incentive Award and to determine whether any performance or vesting conditions have been satisfied;

(d) to determine whether or not specific Awards shall be granted in connection with other specific Awards, and if so, whether they shall be exercisable cumulatively with, or

alternatively to, such other specific Awards and all other matters to be determined in connection with an Award;

(e) to determine the Term of any Option or SAR;

(f) to determine the amount, if any, that a Grantee shall pay for Restricted Shares, whether to permit or require the payment of cash dividends thereon to be deferred and the terms related thereto, when Restricted Shares (including Restricted Shares acquired upon the exercise of an Option) shall be forfeited and whether such shares shall be held in escrow;

(g) to determine whether, to what extent and under what circumstances an Award may be settled in, or the exercise price of an Award may be paid in, cash, Shares, other Awards or other property, or an Award may be accelerated, vested, canceled, forfeited or surrendered or any terms of the Award may be waived, and to accelerate the exercisability of, and to accelerate or waive any or all of the terms and conditions applicable to, any Award or any group of Awards for any reason and at any time;

(h) to determine with respect to Awards granted to Eligible Persons whether, to what extent and under what circumstances cash, Shares, other Awards, other property and other amounts payable with respect to an Award will be deferred, either at the election of the Grantee or automatically pursuant to the terms of the Award Agreement;

(i) to offer to exchange or buy out any previously granted Award for a payment in cash, Shares or other Award;

(j) to construe and interpret the Plan and to make all determinations, including factual determinations, necessary or advisable for the administration of the Plan;

(k) to make, amend, suspend, waive and rescind rules and regulations relating to the Plan;

(l) to appoint such agents as the Committee may deem necessary or advisable to administer the Plan;

(m) to determine the terms and conditions of all Award Agreements applicable to Eligible Persons (which need not be identical) and, with the consent of the Grantee, to amend any such Award Agreement at any time, among other things, to permit transfers of such Awards to the extent permitted by the Plan; provided that the consent of the Grantee shall not be required for any amendment (i) which does not adversely affect the rights of the Grantee, or (ii) which is necessary or advisable (as determined by the Committee) to carry out the purpose of the Award as a result of any new applicable law or change in an existing applicable law, or (iii) to the extent the Award Agreement specifically permits amendment without consent;

(n) to cancel, with the consent of the Grantee, outstanding Awards and to grant new Awards in substitution therefor;

(o) to impose such additional terms and conditions upon the grant, exercise or retention of Awards as the Committee may, before or concurrently with the grant thereof, deem appropriate, including limiting the percentage of Awards which may from time to time be exercised by a Grantee;

(p) to make adjustments in the terms and conditions of, and the criteria in, Awards in recognition of unusual or nonrecurring events (including events described in Section 4.2) affecting the Company or an Affiliate or the financial statements of the Company or an Affiliate, or in response to changes in applicable laws, regulations or accounting principles;

(q) to correct any defect or supply any omission or reconcile any inconsistency, and to construe and interpret the Plan, the rules and regulations, and Award Agreement or any other instrument entered into or relating to an Award under the Plan; and

(r) to take any other action with respect to any matters relating to the Plan for which it is responsible and to make all other decisions and determinations as may be required under the terms of the Plan or as the Committee may deem necessary or advisable for the administration of the Plan.

Any action of the Committee with respect to the Plan shall be final, conclusive and binding on all persons, including the Company, its Affiliates, any Grantee, any person claiming any rights under the Plan from or through any Grantee, and stockholders, except to the extent the Committee may subsequently modify, or take further action not consistent with, its prior action. If not specified in the Plan, the time at which the Committee must or may make any determination shall be determined by the Committee, and any such determination may thereafter be modified by the Committee. The express grant of any specific power to the Committee, and the taking of any action by the Committee, shall not be construed as limiting any power or authority of the Committee. Subject to Section 3.1(b), the Committee may delegate to officers of the Company or any Affiliate the authority, subject to such terms as the Committee shall determine, to perform specified functions under the Plan.

3.3 No Repricings . Notwithstanding any provision in Section 3.2 to the contrary, the terms of any outstanding Option or SAR may not be amended to reduce the Exercise Price of such Option or SAR or cancel any outstanding Option or SAR in exchange for other Options or SARs with an Exercise Price that is less than the Exercise Price of the cancelled Option or SAR or for any cash payment (or Shares having with a Fair Market Value) in an amount that exceeds the excess of the Fair Market Value of the Shares underlying such cancelled Option or SAR over the aggregate Exercise Price of such Option or SAR or for any other Award, without stockholder approval; provided, however, that the restrictions set forth in this Section 3.3, shall not apply (i) unless the Company has a class of stock that is registered under Section 12 of the Exchange Act or (ii) to any adjustment allowed under to Section 4.2.

Article 4.
Shares Subject to the Plan

4.1 Number of Shares Available for Grants. Subject to adjustment as provided in Section 4.2 and except as provided in Section 5.6(b), the maximum number of Shares hereby reserved for delivery under the Plan shall be:

(a) [ ][2] Shares, plus

(b) an annual increase to be added as of the first day of the Company's fiscal year, beginning in 2019 and occurring each year thereafter through 2028, equal to the 4% of the total number of Shares of Common Stock issued and outstanding on a fully-diluted basis as of the end of the Company's immediately preceding fiscal year (or such lesser number of shares, including no shares, determined by the Board in its sole discretion); provided, however, that the aggregate number of additional Shares available for issuance pursuant to this paragraph (b) shall not exceed a total of [ ][3] Shares.

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2 Note to Draft: The initial number of Shares expected to be authorized under the Plan will equal the sum of (i) the number of Shares and the number of Shares underlying Options that will be issued upon conversion of the LLC into a corporation in exchange for outstanding profits interests in the LLC, plus (ii) 8% of the number of Shares that will issued and outstanding after the effective date of the Registration Statement on a fully diluted basis.

3 Note to Draft: Maximum potential number of Shares under 4.1(b) would be approximately 16 times the number of Shares authorized under 4.1(a).

Up to a maximum of [ ] Shares may be delivered pursuant to the exercise of Incentive Stock Options granted hereunder.

If any Shares subject to an Award granted hereunder (other than a Substitute Award granted pursuant to Section 5.6(b)) are forfeited or such Award otherwise terminates without payment or delivery of such Shares, the Shares subject to such Award, to the extent of any such forfeiture or termination, shall again be available for grant under the Plan. For avoidance of doubt, however, if any Shares subject to an Award granted hereunder are withheld or applied as payment in connection with the exercise of an Award or the withholding or payment of taxes related thereto ("Returned Shares"), such Returned Shares will be treated as having been delivered for purposes of determining the maximum number of Shares available for grant under the Plan and shall not again be treated as available for grant under the Plan. Moreover, the number of Shares available for issuance under the Plan may not be increased through the Company's purchase of Shares on the open market with the proceeds obtained from the exercise of any Options granted hereunder. Upon settlement of an SAR, the number of Shares underlying the portion of the SAR that is exercised will be treated as having been delivered for purposes of determining the maximum number of Shares available for grant under the Plan and shall not again be treated as available for issuance under the Plan.

Shares delivered pursuant to the Plan may be, in whole or in part, authorized and unissued Shares, or treasury Shares, including Shares repurchased by the Company for purposes of the Plan.

4.2 Adjustments in Authorized Shares and Awards; Corporate Transaction, Liquidation or Dissolution.

(a) Adjustment in Authorized Shares and Awards. In the event that the Committee determines that any dividend or other distribution (whether in the form of cash, Shares, or other property), recapitalization, forward or reverse stock split, subdivision, consolidation or reduction of capital, reorganization, merger, consolidation, scheme of arrangement, split-up, spin-off or combination involving the Company or repurchase or exchange of Shares or other securities of the Company or other rights to purchase Shares or other securities of the Company, or other similar corporate transaction or event affects the Shares such that any adjustment is determined by the Committee to be appropriate in order to prevent dilution or enlargement of the benefits or potential benefits intended to be made available under the Plan, then the Committee shall, in such manner as it may deem equitable, adjust any or all of (i) the number and type of Shares (or other securities or property) with respect to which Awards may be granted, (ii) the number and type of Shares (or other securities or property) subject to outstanding Awards, (iii) the Exercise Price with respect to any Option or SAR or, if deemed appropriate, make provision for a cash payment to the holder of an outstanding Award, and (iv) the number and kind of Shares of outstanding Restricted Shares, or the Shares underlying any other form of Award. Notwithstanding the foregoing, no such adjustment shall be authorized with respect to any Options or SARs to the extent that such adjustment would cause the Option or SAR to violate Section 424(a) of the Code or otherwise subject any Grantee to taxation under Section 409A of the Code; and *provided further* that the number of Shares subject to any Award denominated in Shares shall always be a whole number.

(b) Merger, Consolidation or Similar Corporate Transaction. In the event of a merger or consolidation of the Company with or into another corporation or a sale of substantially all of the stock of the Company (a "Corporate Transaction"), unless an outstanding Award is assumed by the Surviving Company or replaced with an equivalent Award granted by the Surviving Company in substitution for such outstanding Award, the Committee shall cancel any outstanding Awards that are not vested and nonforfeitable as of the consummation of such Corporate Transaction (unless the Committee accelerates the vesting of any such Awards) and with respect to any vested and nonforfeitable Awards, the Committee may either (i) allow all Grantees to exercise such Awards of Options and SARs within a reasonable period prior to the consummation

of the Corporate Transaction and cancel any outstanding Options or SARs that remain unexercised upon consummation of the Corporate Transaction, or (ii) cancel any or all of such outstanding Awards in exchange for a payment (in cash, or in securities or other property) in an amount equal to the amount that the Grantee would have received (net of the Exercise Price with respect to any Options or SARs) if such vested Awards were settled or distributed or such vested Options and SARs were exercised immediately prior to the consummation of the Corporate Transaction. Notwithstanding the foregoing, if an Option or SAR is not assumed by the Surviving Company or replaced with an equivalent Award issued by the Surviving Company and the Exercise Price with respect to any outstanding Option or SAR exceeds the Fair Market Value of the Shares immediately prior to the consummation of the Corporation Transaction, such Awards shall be cancelled without any payment to the Grantee.

(c) Liquidation or Dissolution of the Company. In the event of the proposed dissolution or liquidation of the Company, each Award will terminate immediately prior to the consummation of such proposed action, unless otherwise provided by the Committee. Additionally, the Committee may, in the exercise of its sole discretion, cause Awards to be vested and non-forfeitable and cause any conditions on any such Award to lapse, as to all or any part of such Award, including Shares as to which the Award would not otherwise be exercisable or non-forfeitable and allow all Grantees to exercise such Awards of Options and SARs within a reasonable period prior to the consummation of such proposed action. Any Awards that remain unexercised upon consummation of such proposed action shall be cancelled.

(d) Deferred Compensation. Notwithstanding the forgoing provisions of this Section 4.2, if an Award constitutes deferred compensation within the meaning of Code Section 409A, no payment or settlement of such Award shall be made pursuant to Section 4.2(b) or (c), unless the Corporate Transaction or the dissolution or liquidation of the Company, as applicable, constitutes a Change in Control.

Article 5.
Eligibility and General Conditions of Awards

5.1 Eligibility. The Committee may in its discretion grant Awards to any Eligible Person, whether or not he or she has previously received an Award; provided, however, that all Awards made to Non-Employee Directors shall be determined by the Board in its sole discretion.

5.2 Award Agreement. To the extent not set forth in the Plan, the terms and conditions of each Award shall be set forth in an Award Agreement.

5.3 General Terms and Termination of Affiliation. The Committee may impose on any Award or the exercise or settlement thereof, at the date of grant or, subject to the provisions of Section 15.2, thereafter, such additional terms and conditions not inconsistent with the provisions of the Plan as the Committee shall determine, including terms requiring forfeiture, acceleration or pro-rata acceleration of Awards in the event of a Termination of Affiliation by the Grantee. Except as may be required under the Delaware General Corporation Law, Awards may be granted for no consideration other than prior and future services. Except as set forth in an Award Agreement or as otherwise determined by the Committee, (a) all Options and SARs that are not vested and exercisable at the time of a Grantee's Termination of Affiliation, and any other Awards that remain subject to a risk of forfeiture or which are not otherwise vested at the time of the Grantee's Termination of Affiliation shall be forfeited to the Company and (b) all outstanding Options and SARs not previously exercised shall expire three months after the Grantee's Termination of Affiliation.

5.4 Nontransferability of Awards.

(a) Each Award and each right under any Award shall be exercisable only by the Grantee during the Grantee's lifetime, or, if permissible under applicable law, by the Grantee's guardian or legal representative or by a transferee receiving such Award pursuant to a qualified

domestic relations order (a "QDRO") as defined in the Code or Title I of the Employee Retirement Income Security Act of 1974, as amended, or the rules thereunder.

(b) No Award (prior to the time, if applicable, Shares are delivered in respect of such Award), and no right under any Award, may be assigned, alienated, pledged, attached, sold or otherwise transferred or encumbered by a Grantee otherwise than by will or by the laws of descent and distribution (or in the case of Restricted Shares, to the Company) or pursuant to a QDRO, and any such purported assignment, alienation, pledge, attachment, sale, transfer or encumbrance shall be void and unenforceable against the Company or any Affiliate; provided that the designation of a beneficiary to receive benefits in the event of the Grantee's death shall not constitute an assignment, alienation, pledge, attachment, sale, transfer or encumbrance.

(c) Notwithstanding subsections (a) and (b) above, to the extent provided in the Award Agreement or as otherwise approved by the Committee, Options (other than Incentive Stock Options) and Restricted Shares, may be transferred, without consideration, to a Permitted Transferee. For this purpose, a "Permitted Transferee" in respect of any Grantee means any member of the Immediate Family of such Grantee, any trust of which all of the primary beneficiaries are such Grantee or members of his or her Immediate Family, or any partnership (including limited liability companies and similar entities) of which all of the partners or members are such Grantee or members of his or her Immediate Family; and the "Immediate Family" of a Grantee means the Grantee's spouse, children, stepchildren, grandchildren, parents, stepparents, siblings, grandparents, nieces and nephews. Such Option may be exercised by such transferee in accordance with the terms of the Award Agreement. If so determined by the Committee, a Grantee may, in the manner established by the Committee, designate a beneficiary or beneficiaries to exercise the rights of the Grantee, and to receive any distribution with respect to any Award upon the death of the Grantee. A transferee, beneficiary, guardian, legal representative or other person claiming any rights under the Plan from or through any Grantee shall be subject to and consistent with the provisions of the Plan and any applicable Award Agreement, except to the extent the Plan and Award Agreement otherwise provide with respect to such persons, and to any additional restrictions or limitations deemed necessary or appropriate by the Committee.

(d) Nothing herein shall be construed as requiring the Committee to honor a QDRO except to the extent required under applicable law.

5.5 Cancellation and Rescission of Awards. Unless the Award Agreement specifies otherwise, the Committee may cancel, rescind, suspend, withhold, or otherwise limit or restrict any unexercised Award at any time if the Grantee is not in compliance with all applicable provisions of the Award Agreement and the Plan or if the Grantee has a Termination of Affiliation.

5.6 Stand-Alone, Tandem and Substitute Awards.

(a) Awards granted under the Plan may, in the discretion of the Committee, be granted either alone or in addition to, in tandem with, or in substitution for, any other Award granted under the Plan unless such tandem or substitution Award would subject the Grantee to tax penalties imposed under Section 409A of the Code. If an Award is granted in substitution for another Award or any non-Plan award or benefit, the Committee shall require the surrender of such other Award or non-Plan award or benefit in consideration for the grant of the new Award. Awards granted in addition to or in tandem with other Awards or non-Plan awards or benefits may be granted either at the same time as or at a different time from the grant of such other Awards or non-Plan awards or benefits; provided, however, that if any SAR is granted in tandem with an Incentive Stock Option, such SAR and Incentive Stock Option must have the same Grant Date, Term and the Exercise Price of the SAR may not be less than the Exercise Price of the Incentive Stock Option.

(b) The Committee may, in its discretion and on such terms and conditions as the Committee considers appropriate in the circumstances, grant Awards under the Plan ("Substitute Awards") in substitution for stock and stock-based awards ("Acquired Entity Awards") held by current or former employees or non-employee directors of, or consultants to, another corporation or entity who become Eligible Persons as the result of a merger or consolidation of the employing corporation or other entity (the "Acquired Entity") with the Company or an Affiliate or the acquisition by the Company or an Affiliate of property or stock of the Acquired Entity immediately prior to such merger, consolidation or acquisition in order to preserve for the Grantee the economic value of all or a portion of such Acquired Entity Award at such price as the Committee determines necessary to achieve preservation of economic value. The limitations in Section 4.1 on the number of Shares reserved or available for grants shall not apply to Substitute Awards granted under this Section 5.6(b).

5.7 Compliance with Rule 16b-3. The provisions of this Section 5.7will not apply unless and until the Company has a class of stock that is registered under Section 12 of the Exchange Act.

(a) Six-Month Holding Period Advice. Unless a Grantee could otherwise dispose of or exercise a derivative security or dispose of Shares delivered under the Plan without incurring liability under Section 16(b) of the Exchange Act, the Committee may advise or require a Grantee to comply with the following in order to avoid incurring liability under Section 16(b) of the Exchange Act: (i) at least six months must elapse from the date of acquisition of a derivative security under the Plan to the date of disposition of the derivative security (other than upon exercise or conversion) or its underlying equity security, and (ii) Shares granted or awarded under the Plan other than upon exercise or conversion of a derivative security must be held for at least six months from the date of grant of an Award.

(b) Reformation to Comply with Exchange Act Rules. To the extent the Committee determines that a grant or other transaction by a Section 16 Person should comply with applicable provisions of Rule 16b-3 (except for transactions exempted under alternative Exchange Act rules), the Committee shall take such actions as necessary to make such grant or other transaction so comply, and if any provision of this Plan or any Award Agreement relating to a given Award does not comply with the requirements of Rule 16b-3 as then applicable to any such grant or transaction, such provision will be construed or deemed amended, if the Committee so determines, to the extent necessary to conform to the then applicable requirements of Rule 16b-3.

(c) Rule 16b-3 Administration. Any function relating to a Section 16 Person shall be performed solely by the Committee or the Board if necessary to ensure compliance with applicable requirements of Rule 16b-3, to the extent the Committee determines that such compliance is desired. Each member of the Committee or person acting on behalf of the Committee shall be entitled to, in good faith, rely or act upon any report or other information furnished to him by any officer, manager or other employee of the Company or any Affiliate, the Company's independent certified public accountants or any executive compensation consultant or attorney or other professional retained by the Company to assist in the administration of the Plan.

5.8 Deferral of Award Payouts. The Committee may permit a Grantee to defer, or if and to the extent specified in an Award Agreement require the Grantee to defer, receipt of the payment of cash or the delivery of Shares that would otherwise be due by virtue of the lapse or waiver of restrictions with respect to Restricted Stock Units, the satisfaction of any requirements or goals with respect to Performance Units or Performance Shares, the lapse or waiver of the deferral period for Deferred Stock, or the lapse or waiver of restrictions with respect to Other Stock-Based Awards or Cash Incentive Awards. If the Committee permits such deferrals, the Committee shall establish rules and procedures for making such deferral elections and for the payment of such deferrals, which shall conform in form and substance with applicable regulations promulgated under Section 409A of the Code and Article 16 to ensure that the Grantee is not subjected to tax penalties under Section 409A of the Code with respect to such deferrals. Except as otherwise provided in an Award Agreement, any payment or any Shares that are subject to such deferral shall be made or delivered to the Grantee as specified in the Award Agreement or pursuant to the Grantee's deferral election.

Article 6.
Stock Options

6.1 Grant of Options. Subject to and consistent with the provisions of the Plan, Options may be granted to any Eligible Person in such number, and upon such terms, and at any time and from time to time as shall be determined by the Committee.

6.2 Award Agreement. Each Option grant shall be evidenced by an Award Agreement that shall specify the Exercise Price, the Term of the Option, the number of Shares to which the Option pertains, the time or times at which such Option shall be exercisable and such other provisions as the Committee shall determine.

6.3 Option Exercise Price. The Exercise Price of an Option under this Plan shall be determined in the sole discretion of the Committee but may not be less than 100% of the Fair Market Value of a Share on the Grant Date.

6.4 Grant of Incentive Stock Options. At the time of the grant of any Option, the Committee may in its discretion designate that such Option shall be made subject to additional restrictions to permit it to qualify as an Incentive Stock Option. Any Option designated as an Incentive Stock Option:

(a) shall be granted only to an employee of the Company or a Subsidiary Corporation;

(b) shall have an Exercise Price of not less than 100% of the Fair Market Value of a Share on the Grant Date, and, if granted to a person who owns capital stock (including stock treated as owned under Section 424(d) of the Code) possessing more than 10% of the total combined voting power of all classes of capital stock of the Company or any Subsidiary Corporation (a "More Than 10% Owner"), have an Exercise Price not less than 110% of the Fair Market Value of a Share on its Grant Date;

(c) shall be for a period of not more than 10 years (five years if the Grantee is a More Than 10% Owner) from its Grant Date, and shall be subject to earlier termination as provided herein or in the applicable Award Agreement;

(d) shall not have an aggregate Fair Market Value (as of the Grant Date) of the Shares with respect to which Incentive Stock Options (whether granted under the Plan or any other stock option plan of the Grantee's employer or any parent or Subsidiary Corporation ("Other Plans")) are exercisable for the first time by such Grantee during any calendar year ("Current Grant"), determined in accordance with the provisions of Section 422 of the Code, which exceeds $100,000 (the "$100,000 Limit");

(e) shall, if the aggregate Fair Market Value of the Shares (determined on the Grant Date) with respect to the Current Grant and all Incentive Stock Options previously granted under the Plan and any Other Plans which are exercisable for the first time during a calendar year ("Prior Grants") would exceed the $100,000 Limit, be, as to the portion in excess of the $100,000 Limit, exercisable as a separate option that is not an Incentive Stock Option at such date or dates as are provided in the Current Grant;

(f) shall require the Grantee to notify the Committee of any disposition of any Shares delivered pursuant to the exercise of the Incentive Stock Option under the circumstances described in Section 421(b) of the Code (relating to holding periods and certain disqualifying dispositions) ("Disqualifying Disposition") within 10 days of such a Disqualifying Disposition;

(g) shall by its terms not be assignable or transferable other than by will or the laws of descent and distribution and may be exercised, during the Grantee's lifetime, only by the Grantee; provided, however, that the Grantee may, to the extent provided in the Plan in any

manner specified by the Committee, designate in writing a beneficiary to exercise his or her Incentive Stock Option after the Grantee's death; and

(h) shall, if such Option nevertheless fails to meet the foregoing requirements, or otherwise fails to meet the requirements of Section 422 of the Code for an Incentive Stock Option, be treated for all purposes of this Plan, except as otherwise provided in subsections (d) and (e) above, as an Option that is not an Incentive Stock Option.

Notwithstanding the foregoing and Section 3.2, the Committee may, without the consent of the Grantee, at any time before the exercise of an Option (whether or not an Incentive Stock Option), take any action necessary to prevent such Option from being treated as an Incentive Stock Option.

6.5 Payment of Exercise Price. Except as otherwise provided in an Award Agreement, Options shall be exercised by the delivery of a written notice of exercise to the Company, setting forth the number of Shares with respect to which the Option is to be exercised, accompanied by full payment for the Shares made by any one or more of the following means:

(a) cash, personal check or wire transfer;

(b) with the approval of the Committee, delivery of Common Stock owned by the Grantee prior to exercise, valued at Fair Market Value on the date of exercise;

(c) with the approval of the Committee, Shares acquired upon the exercise of such Option, such Shares valued at Fair Market Value on the date of exercise;

(d) with the approval of the Committee, Restricted Shares held by the Grantee prior to the exercise of the Option, valued at Fair Market Value on the date of exercise; or

(e) subject to applicable law (including the prohibited loan provisions of Section 402 of the Sarbanes Oxley Act of 2002), through the sale of the Shares acquired on exercise of the Option through a broker-dealer to whom the Grantee has submitted an irrevocable notice of exercise and irrevocable instructions to deliver promptly to the Company the amount of sale proceeds sufficient to pay for such Shares, together with, if requested by the Company, the amount of federal, state, local or foreign withholding taxes payable by Grantee by reason of such exercise.

The Committee may in its discretion specify that, if any Restricted Shares ("Tendered Restricted Shares") are used to pay the Exercise Price, (x) all the Shares acquired on exercise of the Option shall be subject to the same restrictions as the Tendered Restricted Shares, determined as of the date of exercise of the Option, or (y) a number of Shares acquired on exercise of the Option equal to the number of Tendered Restricted Shares shall be subject to the same restrictions as the Tendered Restricted Shares, determined as of the date of exercise of the Option.

Article 7.
Stock Appreciation Rights

7.1 Issuance . Subject to and consistent with the provisions of the Plan, the Committee, at any time and from time to time, may grant SARs to any Eligible Person either alone or in addition to other Awards granted under the Plan. Such SARs may, but need not, be granted in connection with a specific Option granted under Article 6. The Committee may impose such conditions or restrictions on the exercise of any SAR as it shall deem appropriate.

7.2 Award Agreements. Each SAR grant shall be evidenced by an Award Agreement in such form as the Committee may approve and shall contain such terms and conditions not inconsistent with other provisions of the Plan as shall be determined from time to time by the Committee.

7.3 SAR Exercise Price. The Exercise Price of a SAR shall be determined by the Committee in its sole discretion; provided that the Exercise Price shall not be less than 100% of the Fair Market Value of a Share on the date of the grant of the SAR.

7.4 Exercise and Payment. Upon the exercise of an SAR, a Grantee shall be entitled to receive payment from the Company in an amount determined by multiplying:

(a) The excess of the Fair Market Value of a Share on the date of exercise over the Exercise Price; by

(b) The number of Shares with respect to which the SAR is exercised.

SARs shall be deemed exercised on the date written notice of exercise in a form acceptable to the Committee is received by the Secretary of the Company. The Company shall make payment in respect of any SAR within five (5) days of the date the SAR is exercised. Any payment by the Company in respect of a SAR may be made in cash, Shares, other property, or any combination thereof, as the Committee, in its sole discretion, shall determine or, to the extent permitted under the terms of the applicable Award Agreement, at the election of the Grantee.

Article 8.
Restricted Shares

8.1 Grant of Restricted Shares. Subject to and consistent with the provisions of the Plan, the Committee, at any time and from time to time, may grant Restricted Shares to any Eligible Person in such amounts as the Committee shall determine.

8.2 Award Agreement. Each grant of Restricted Shares shall be evidenced by an Award Agreement that shall specify the Period(s) of Restriction, the number of Restricted Shares granted, and such other provisions as the Committee shall determine. The Committee may impose such conditions and/or restrictions on any Restricted Shares granted pursuant to the Plan as it may deem advisable, including restrictions based upon the achievement of specific performance goals, time-based restrictions on vesting following the attainment of the performance goals, and/or restrictions under applicable securities laws; provided that such conditions and/or restrictions may lapse, if so determined by the Committee, in the event of the Grantee's Termination of Affiliation due to death, Disability, or involuntary termination by the Company or an Affiliate without Cause.

8.3 Consideration for Restricted Shares. The Committee shall determine the amount, if any, that a Grantee shall pay for Restricted Shares.

8.4 Effect of Forfeiture. If Restricted Shares are forfeited, and if the Grantee was required to pay for such shares or acquired such Restricted Shares upon the exercise of an Option, the Grantee shall be deemed to have resold such Restricted Shares to the Company at a price equal to the lesser of (x) the amount paid by the Grantee for such Restricted Shares, or (y) the Fair Market Value of a Share on the date of such forfeiture. The Company shall pay to the Grantee the deemed sale price as soon as is administratively practical. Such Restricted Shares shall cease to be outstanding and shall no longer confer on the Grantee thereof any rights as a stockholder of the Company, from and after the date of the event causing the forfeiture, whether or not the Grantee accepts the Company's tender of payment for such Restricted Shares.

8.5 Escrow; Legends. The Committee may provide that the certificates for any Restricted Shares (x) shall be held (together with a stock power executed in blank by the Grantee) in escrow by the Secretary of the Company until such Restricted Shares become nonforfeitable or are forfeited and/or (y) shall bear an appropriate legend restricting the transfer of such Restricted Shares under the Plan. If any Restricted Shares become nonforfeitable, the Company shall cause certificates for such shares to be delivered without such legend.

Article 9.
Performance Units and Performance Shares

9.1 Grant of Performance Units and Performance Shares. Subject to and consistent with the provisions of the Plan, Performance Units or Performance Shares may be granted to any Eligible Person in such amounts and upon such terms, and at any time and from time to time, as shall be determined by the Committee.

9.2 Value/Performance Goals. The Committee shall set performance goals in its discretion which, depending on the extent to which they are met, will determine the number or value of Performance Units or Performance Shares that will be paid to the Grantee.

(a) Performance Unit. Each Performance Unit shall have an initial value that is established by the Committee at the time of grant.

(b) Performance Share. Each Performance Share shall have an initial value equal to the Fair Market Value of a Share on the date of grant.

9.3 Earning of Performance Units and Performance Shares. After the applicable Performance Period has ended, the holder of Performance Units or Performance Shares shall be entitled to payment based on the level of achievement of performance goals set by the Committee.

At the discretion of the Committee, the settlement of Performance Units or Performance Shares may be in cash, Shares of equivalent value, or in some combination thereof, as set forth in the Award Agreement.

If a Grantee is promoted, demoted or transferred to a different business unit of the Company during a Performance Period, then, to the extent the Committee determines that the Award, the performance goals, or the Performance Period are no longer appropriate, the Committee may adjust, change, eliminate or cancel the Award, the performance goals, or the applicable Performance Period, as it deems appropriate in order to make them appropriate and comparable to the initial Award, the performance goals, or the Performance Period.

At the discretion of the Committee, a Grantee may be entitled to receive any dividends or Dividend Equivalents declared with respect to Shares deliverable in connection with vested Performance Shares which have been earned, but not yet delivered to the Grantee.

Article 10.
Deferred Stock and Restricted Stock Units

10.1 Grant of Deferred Stock and Restricted Stock Units. Subject to and consistent with the provisions of the Plan, the Committee, at any time and from time to time, may grant Deferred Stock and/or Restricted Stock Units to any Eligible Person, in such amount and upon such terms as the Committee shall determine. Deferred Stock must conform in form and substance with applicable regulations promulgated under Section 409A of the Code and with Article 16 to ensure that the Grantee is not subjected to tax penalties under Section 409A of the Code with respect to such Deferred Stock.

10.2 Vesting and Delivery.

(a) Delivery with Respect to Deferred Stock. Delivery of Shares subject to a Deferred Stock grant will occur upon expiration of the deferral period or upon the occurrence of one or more of the distribution events described in Section 409A(a)(2) of the Code as specified by the Committee in the Grantee's Award Agreement for the Award of Deferred Stock. An Award of Deferred Stock may be subject to such substantial risk of forfeiture conditions as the Committee may impose, which conditions may lapse at such times or upon the achievement of such objectives as the Committee shall determine at the time of grant or thereafter. Unless otherwise

determined by the Committee, to the extent that the Grantee has a Termination of Affiliation while the Deferred Stock remains subject to a substantial risk of forfeiture, such Deferred Shares shall be forfeited, unless the Committee determines that such substantial risk of forfeiture shall lapse in the event of the Grantee's Termination of Affiliation due to death, Disability, or involuntary termination by the Company or an Affiliate without "cause."

(b) Delivery with Respect to Restricted Stock Units. Delivery of Shares subject to a grant of Restricted Stock Units shall occur no later than the 15th day of the third month following the end of the taxable year of the Grantee or the fiscal year of the Company in which the Grantee's rights under such Restricted Stock Units are no longer subject to a substantial risk of forfeiture as defined in final regulations under Section 409A of the Code. Unless otherwise determined by the Committee, to the extent that the Grantee has a Termination of Affiliation while the Restricted Stock Units remains subject to a substantial risk of forfeiture, such Restricted Stock Units shall be forfeited, unless the Committee determines that such substantial risk of forfeiture shall lapse in the event of the Grantee's Termination of Affiliation due to death, Disability, or involuntary termination by the Company or an Affiliate without "cause."

10.3 Voting and Dividend Equivalent Rights Attributable to Deferred Stock and Restricted Stock Units. A Grantee awarded Deferred Stock or Restricted Stock Units will have no voting rights with respect to such Deferred Stock or Restricted Stock Units prior to the delivery of Shares in settlement of such Deferred Stock and/or Restricted Stock Units. Unless otherwise determined by the Committee, a Grantee will have the rights to receive Dividend Equivalents in respect of Deferred Stock and/or Restricted Stock Units, which Dividend Equivalents shall be deemed reinvested in additional Shares of Deferred Stock or Restricted Stock Units, as applicable, which shall remain subject to the same forfeiture conditions applicable to the Deferred Stock or Restricted Stock Units to which such Dividend Equivalents relate.

Article 11.
Dividend Equivalents

The Committee is authorized to grant Awards of Dividend Equivalents alone or in conjunction with other Awards. The Committee may provide that Dividend Equivalents shall be paid or distributed when accrued or shall be deemed to have been reinvested in additional Shares or additional Awards or otherwise reinvested subject to distribution at the same time and subject to the same conditions as the Award to which it relates; provided, however, that any Dividend Equivalents granted in conjunction with any Award that is subject to forfeiture conditions shall remain subject to the same forfeiture conditions applicable to the Award to which such Dividend Equivalents relate and any payments in respect of any Dividend Equivalents granted in conjunction with any Options or SARs may not be conditioned, directly or indirectly, on the Grantee's exercise of the Options or SARs or paid at the same time that the Options or SARs are exercised. The timing of payment or distribution of Dividend Equivalents must comply with the requirements of Section 409A of the Code.

Article 12.
Bonus Shares

Subject to the terms of the Plan, the Committee may grant Bonus Shares to any Eligible Person, in such amount and upon such terms and at any time and from time to time as shall be determined by the Committee.

Article 13.
Other Stock-Based Awards

The Committee is authorized, subject to limitations under applicable law, to grant such other Awards that are denominated or payable in, valued in whole or in part by reference to, or otherwise based on, or related to, Shares, as deemed by the Committee to be consistent with the purposes of the Plan,

including Shares awarded which are not subject to any restrictions or conditions, convertible or exchangeable debt securities or other rights convertible or exchangeable into Shares, and Awards valued by reference to the value of securities of or the performance of specified Affiliates. Subject to and consistent with the provisions of the Plan, the Committee shall determine the terms and conditions of such Awards. Except as provided by the Committee, Shares delivered pursuant to a purchase right granted under this Article 13 shall be purchased for such consideration, paid for by such methods and in such forms, including cash, Shares, outstanding Awards or other property, as the Committee shall determine.

Article 14.
Non-Employee Director Awards

Subject to the terms of the Plan, the Board may grant Awards to any Non-Employee Director, in such amount and upon such terms and at any time and from time to time as shall be determined by the full Board in its sole discretion. Except as otherwise provided in Section 5.6(b), a Non-Employee Director may not be granted Awards with respect to Shares that have a Fair Market Value (determined as of the date of grant) in excess of $500,000 in a single calendar year.

Article 15.
Amendment, Modification, and Termination

15.1 Amendment, Modification, and Termination. Subject to Section 15.2, the Board may, at any time and from time to time, alter, amend, suspend, discontinue or terminate the Plan in whole or in part without the approval of the Company's stockholders, except that (a) any amendment or alteration shall be subject to the approval of the Company's stockholders if such stockholder approval is required by any federal or state law or regulation or the rules of any stock exchange or automated quotation system on which the Shares may then be listed or quoted, and (b) the Board may otherwise, in its discretion, determine to submit other such amendments or alterations to stockholders for approval.

15.2 Awards Previously Granted. Except as otherwise specifically permitted in the Plan or an Award Agreement, no termination, amendment, or modification of the Plan shall adversely affect in any material way any Award previously granted under the Plan, without the written consent of the Grantee of such Award.

Article 16.
Compliance with Code Section 409A

16.1 Awards Subject to Code Section 409A. The provisions of this Article 16 shall apply to any Award or portion thereof that is or becomes deferred compensation subject to Code Section 409A (a "409A Award"), notwithstanding any provision to the contrary contained in the Plan or the Award Agreement applicable to such Award.

16.2 Deferral and/or Distribution Elections. Except as otherwise permitted or required by Code Section 409A, the following rules shall apply to any deferral and/or elections as to the form or timing of distributions (each, an "Election") that may be permitted or required by the Committee with respect to a 409A Award:

(a) Any Election must be in writing and specify the amount being deferred, and the time and form of distribution (i.e., lump sum or installments) as permitted by this Plan. An Election may but need not specify whether payment will be made in cash, Shares or other property.

(b) Any Election shall become irrevocable as of the deadline specified by the Committee, which shall not be later than December 31 of the year preceding the year in which services relating to the Award commence; provided, however, that if the Award qualifies as

"performance-based compensation" for purposes of Code Section 409A and is based on services performed over a period of at least twelve (12) months, then the deadline may be no later than six (6) months prior to the end of such Performance Period.

(c) Unless otherwise provided by the Committee, an Election shall continue in effect until a written election to revoke or change such Election is received by the Committee, prior to the last day for making an Election for the subsequent year.

16.3 Subsequent Elections. Except as otherwise permitted or required by Code Section 409A, any 409A Award which permits a subsequent Election to further defer the distribution or change the form of distribution shall comply with the following requirements:

(a) No subsequent Election may take effect until at least twelve (12) months after the date on which the subsequent Election is made;

(b) Each subsequent Election related to a distribution upon separation from service, a specified time, or a Change in Control must result in a delay of the distribution for a period of not less than five (5) years from the date such distribution would otherwise have been made; and

(c) No subsequent Election related to a distribution to be made at a specified time or pursuant to a fixed schedule shall be made less than twelve (12) months prior to the date the first scheduled payment would otherwise be made.

16.4 Distributions Pursuant to Deferral Elections. Except as otherwise permitted or required by Code Section 409A, no distribution in settlement of a 409A Award may commence earlier than:

(a) Separation from Service;

(b) The date the Participant becomes Disabled (as defined in Section 2.15(b);

(c) The Participant's death;

(d) A specified time (or pursuant to a fixed schedule) that is either (i) specified by the Committee upon the grant of the Award and set forth in the Award Agreement or (ii) specified by the Grantee in an Election complying with the requirements of Section 16.2 and/or 16.3, as applicable; or

(e) A change in ownership of the Company or a substantial portion of its assets within the meaning of Treasury Regulation Section 1.409A-3(i)(5)(v) or (vii) or a change in effective control of the Company within the meaning of Treasury Regulation Section 1.409A-3(i)(5)(vi) (a "Change in Control").

16.5 Six Month Delay. Notwithstanding anything herein or in any Award Agreement or Election to the contrary, to the extent that distribution of a 409A Award is triggered by a Grantee's Separation from Service, if the Grantee is then a "specified employee" (as defined in Treasury Regulation Section 1.409A-1(i)), no distribution may be made before the date which is six (6) months after such Grantee's Separation from Service, or, if earlier, the date of the Grantee's death.

16.6 Death or Disability. Unless the Award Agreement otherwise provides, if a Grantee dies or becomes Disabled before complete distribution of amounts payable upon settlement of a 409A Award, such undistributed amounts, to the extent vested, shall be distributed as provided in the Participants Election. If the Participant has made no Election with respect to distributions upon death or Disability, all such distributions shall be paid in a lump sum within 90 days following the date of the Participant's death or Disability.

16.7 No Acceleration of Distributions. This Plan does not permit the acceleration of the time or schedule of any distribution under a 409A Award, except as provided by Code Section 409A and/or applicable regulations or rulings issued thereunder.

Article 17.
Withholding

17.1 Required Withholding.

(a) The Committee in its sole discretion may provide that when taxes are to be withheld in connection with the exercise of an Option or SAR, or upon the lapse of restrictions on Restricted Shares, or upon the transfer of Shares, or upon payment of any other benefit or right under this Plan (the date on which such exercise occurs or such restrictions lapse or such payment of any other benefit or right occurs hereinafter referred to as the "Tax Date"), the Grantee may elect to make payment for the withholding of federal, state and local taxes, including Social Security and Medicare ("FICA") taxes by one or a combination of the following methods:

(i) payment of an amount in cash equal to the amount to be withheld (including cash obtained through the sale of the Shares acquired on exercise of an Option or SAR, upon the lapse of restrictions on Restricted Shares, or upon the transfer of Shares, through a broker-dealer to whom the Grantee has submitted an irrevocable instructions to deliver promptly to the Company, the amount to be withheld);

(ii) delivering part or all of the amount to be withheld in the form of Common Stock valued at its Fair Market Value on the Tax Date;

(iii) requesting the Company to withhold from those Shares that would otherwise be received upon exercise of the Option or SAR, upon the lapse of restrictions on Restricted Stock, or upon the transfer of Shares, a number of Shares having a Fair Market Value on the Tax Date equal to the amount to be withheld; or

(iv) withholding from any compensation otherwise due to the Grantee.

The Committee in its sole discretion may provide that the maximum amount of tax withholding upon exercise of an Option or SARs, upon the lapse of restrictions on Restricted Shares, or upon the transfer of Shares, to be satisfied by withholding Shares upon exercise of such Option or SAR, upon the lapse of restrictions on Restricted Shares, or upon the transfer of Shares, pursuant to clause (iii) above shall not exceed the minimum amount of taxes, including FICA taxes, required to be withheld under federal, state and local law. An election by Grantee under this subsection is irrevocable. Any fractional share amount and any additional withholding not paid by the withholding or surrender of Shares must be paid in cash. If no timely election is made, the Grantee must deliver cash to satisfy all tax withholding requirements.

(b) Any Grantee who makes a Disqualifying Disposition (as defined in Section 6.4(f)) or an election under Section 83(b) of the Code shall remit to the Company an amount sufficient to satisfy all resulting tax withholding requirements in the same manner as set forth in subsection (a).

17.2 Notification under Code Section 83(b). If the Grantee, in connection with the exercise of any Option, or the grant of Restricted Shares, makes the election permitted under Section 83(b) of the Code to include in such Grantee's gross income in the year of transfer the amounts specified in Section 83(b) of the Code, then such Grantee shall notify the Company of such election within 10 days of filing the notice of the election with the Internal Revenue Service, in addition to any filing and notification required pursuant to regulations issued under Section 83(b) of the Code. The Committee may, in connection with the grant of an Award or at any time thereafter, prohibit a Grantee from making the election described above.

Article 18.
Additional Provisions

18.1 Successors. Subject to Section 4.2(b), all obligations of the Company under the Plan with respect to Awards granted hereunder shall be binding on any successor to the Company, whether the existence of such successor is the result of a direct or indirect purchase, merger, consolidation, or otherwise of all or substantially all of the business and/or assets of the Company.

18.2 Severability. If any part of the Plan is declared by any court or governmental authority to be unlawful or invalid, such unlawfulness or invalidity shall not invalidate any other part of the Plan. Any Section or part of a Section so declared to be unlawful or invalid shall, if possible, be construed in a manner which will give effect to the terms of such Section or part of a Section to the fullest extent possible while remaining lawful and valid.

18.3 Requirements of Law. The granting of Awards and the delivery of Shares under the Plan shall be subject to all applicable laws, rules, and regulations, and to such approvals by any governmental agencies or national securities exchanges as may be required. Notwithstanding any provision of the Plan or any Award, Grantees shall not be entitled to exercise, or receive benefits under, any Award, and the Company (and any Affiliate) shall not be obligated to deliver any Shares or deliver benefits to a Grantee, if such exercise or delivery would constitute a violation by the Grantee or the Company of any applicable law or regulation.

18.4 Securities Law Compliance.

(a) If the Committee deems it necessary to comply with any applicable securities law, or the requirements of any stock exchange upon which Shares may be listed, the Committee may impose any restriction on Awards or Shares acquired pursuant to Awards under the Plan as it may deem advisable. In addition, if requested by the Company and any underwriter engaged by the Company, Shares acquired pursuant to Awards may not be sold or otherwise transferred or disposed of for such period following the effective date of any registration statement of the Company filed under the Securities Act as the Company or such underwriter shall specify reasonably and in good faith, not to exceed 180 days in the case of the Company's initial public offering or 90 days in the case of any other public offering. All certificates for Shares delivered under the Plan pursuant to any Award or the exercise thereof shall be subject to such stop transfer orders and other restrictions as the Committee may deem advisable under the rules, regulations and other requirements of the SEC, any stock exchange upon which Shares are then listed, any applicable securities law, and the Committee may cause a legend or legends to be put on any such certificates to make appropriate reference to such restrictions. If so requested by the Company, the Grantee shall make a written representation to the Company that he or she will not sell or offer to sell any Shares unless a registration statement shall be in effect with respect to such Shares under the Securities Act of 1933, as amended, and any applicable state securities law or unless he or she shall have furnished to the Company, in form and substance satisfactory to the Company, that such registration is not required.

(b) If the Committee determines that the exercise or nonforfeitability of, or delivery of benefits pursuant to, any Award would violate any applicable provision of securities laws or the listing requirements of any national securities exchange or national market system on which are listed any of the Company's equity securities, then the Committee may postpone any such exercise, nonforfeitability or delivery, as applicable, but the Company shall use all reasonable efforts to cause such exercise, nonforfeitability or delivery to comply with all such provisions at the earliest practicable date.

18.5 Forfeiture Events. Notwithstanding any provisions herein to the contrary, the Committee shall have the authority to determine (and may so provide in any Award Agreement) that a Grantee's (including his or her estate's, beneficiary's or transferee's) rights (including the right to exercise any Option or SAR), payments and benefits with respect to any Award shall be subject to reduction,

cancellation, forfeiture or recoupment (to the extent permitted by applicable law) in the event of the Participant's termination for Cause; serious misconduct; violation of the Company's or an Affiliate's policies; breach of fiduciary duty; unauthorized disclosure of any trade secret or confidential information of the Company or an Affiliate; breach of applicable noncompetition, nonsolicitation, confidentiality or other restrictive covenants; or other conduct or activity that is in competition with the business of the Company or an Affiliate, or otherwise detrimental to the business, reputation or interests of the Company and/or an Affiliate; or upon the occurrence of certain events specified in the applicable Award Agreement (in any such case, whether or not the Grantee is then an Employee or Non-Employee Director). The determination of whether a Grantee's conduct, activities or circumstances are described in the immediately preceding sentence shall be made by the Committee in its discretion, and pending any such determination, the Committee shall have the authority to suspend the exercise, payment, delivery or settlement of all or any portion of such Grantee's outstanding Awards pending any investigation of the matter. 18.6 No Rights as a Stockholder. No Grantee shall have any rights as a stockholder of the Company with respect to the Shares (other than Restricted Shares) which may be deliverable upon exercise or payment of such Award until such Shares have been delivered to him or her. Restricted Shares, whether held by a Grantee or in escrow by the Secretary of the Company, shall confer on the Grantee all rights of a stockholder of the Company, except as otherwise provided in the Plan or Award Agreement. At the time of a grant of Restricted Shares, the Committee may require the payment of cash dividends thereon to be deferred and, if the Committee so determines, reinvested in additional Restricted Shares. Stock dividends and deferred cash dividends issued with respect to Restricted Shares shall be subject to the same restrictions and other terms as apply to the Restricted Shares with respect to which such dividends are issued. The Committee may in its discretion provide for payment of interest on deferred cash dividends.

18.7 Nature of Payments. Unless otherwise specified in the Award Agreement, Awards shall be special incentive payments to the Grantee and shall not be taken into account in computing the amount of salary or compensation of the Grantee for purposes of determining any pension, retirement, death or other benefit under (a) any pension, retirement, profit sharing, bonus, insurance or other employee benefit plan of the Company or any Affiliate, except as such plan shall otherwise expressly provide, or (b) any agreement between (i) the Company or any Affiliate and (ii) the Grantee, except as such agreement shall otherwise expressly provide.

18.8 Non-Exclusivity of Plan. Neither the adoption of the Plan by the Board nor its submission to the stockholders of the Company for approval shall be construed as creating any limitations on the power of the Board to adopt such other compensatory arrangements for employees or Non-Employee Directors as it may deem desirable.

18.9 Governing Law. The Plan, and all agreements hereunder, shall be construed in accordance with and governed by the laws of the State of Delaware, other than its laws respecting choice or conflicts of law rule or principles that might otherwise refer construction or interpretation of the Plan to the substantive law of another jurisdiction. Unless otherwise provided in the Award Agreement, Participants are deemed to submit to the exclusive jurisdiction and venue of the federal or state courts of the State of Delaware, to resolve any and all issues that may arise out of or relate to the Plan or any related Award Agreement.

18.10 Unfunded Status of Awards; Creation of Trusts. The Plan is intended to constitute an "unfunded" plan for incentive and deferred compensation. With respect to any payments not yet made to a Grantee pursuant to an Award, nothing contained in the Plan or any Award Agreement shall give any such Grantee any rights that are greater than those of a general creditor of the Company; provided, however, that the Committee may authorize the creation of trusts or make other arrangements to meet the Company's obligations under the Plan to deliver cash, Shares or other property pursuant to any Award which trusts or other arrangements shall be consistent with the "unfunded" status of the Plan unless the Committee otherwise determines.

18.11 Affiliation. Nothing in the Plan or an Award Agreement shall interfere with or limit in any way the right of the Company or any Affiliate to terminate any Grantee's employment or consulting contract at any time, nor confer upon any Grantee the right to continue in the employ of or as an officer of or as a consultant to or Non-Employee Director of the Company or any Affiliate.

18.12 Participation. No employee or officer shall have the right to be selected to receive an Award under this Plan or, having been so selected, to be selected to receive a future Award.

18.13 Military Service. Awards shall be administered in accordance with Section 414(u) of the Code and the Uniformed Services Employment and Reemployment Rights Act of 1994.

18.14 Construction. The following rules of construction will apply to the Plan: (a) the word "or" is disjunctive but not necessarily exclusive, and (b) words in the singular include the plural, words in the plural include the singular, and words in the neuter gender include the masculine and feminine genders and words in the masculine or feminine gender include the other neuter genders.

18.15 Headings. The headings of articles and sections are included solely for convenience of reference, and if there is any conflict between such headings and the text of this Plan, the text shall control.

18.16 Obligations. Unless otherwise specified in the Award Agreement, the obligation to deliver, pay or transfer any amount of money or other property pursuant to Awards under this Plan shall be the sole obligation of a Grantee's employer; provided that the obligation to deliver or transfer any Shares pursuant to Awards under this Plan shall be the sole obligation of the Company.

18.17 No Right to Continue as Director. Nothing in the Plan or any Award Agreement shall confer upon any Non-Employee Director the right to continue to serve as a director of the Company.

18.18 Stockholder Approval. All Incentive Stock Options granted on or after the Effective Date and prior to the date the Company's stockholders approve the Plan are expressly conditioned upon and subject to approval of the Plan by the Company's stockholders.

INCENTIVE STOCK OPTION AGREEMENT
UNDER THE ELECTROCORE, INC.
2018 OMNIBUS EQUITY COMPENSATION PLAN

Name of Grantee:	_____	(the "Grantee")
No. of Shares Underlying Options:	_____	(the "Underlying Shares")
Grant Date:	_____	(the "Grant Date")
Vesting Commencement Date:	_____	("Vesting Commencement Date")
Expiration Date:	_____	(the "Expiration Date")
Exercise Price/Share:	$ _____	(the "Exercise Price")

Pursuant to the electroCore, Inc. 2018 Omnibus Equity Compensation Plan (the "Plan"), electroCore, Inc., a Delaware corporation (together with all successors thereto, the "Company"), hereby grants to the Grantee, an Option to purchase, on or prior to the Expiration Date (or such earlier date as provided in Section 3 below), all or any part of the number of Shares of Common Stock of the Company indicated above (the "Underlying Shares," with such Shares once issued being referred to herein as "Option Shares") at the Exercise Price per share indicated above.

Notwithstanding anything in this Incentive Stock Option Agreement (the "Agreement") to the contrary, this Option and any Option Shares acquired upon shall be subject to, and governed by, all the terms and conditions of the Plan. To the extent there is any inconsistency between the terms of the Plan and of this Agreement, the terms of the Plan shall control.

All capitalized terms used in this Agreement and not otherwise defined shall have the respective meanings given such terms in the Plan.

1. **Vesting and Exercisability**. Subject to such further limitations as are provided in the Plan and as set forth herein, the Option shall vest and become exercisable: with respect to 25% of the Underlying Shares on each of the first (1st), second (2nd), third (3rd) and fourth (4th) anniversaries of the Vesting Commencement Date until the Option is fully vested and exercisable on the fourth (4th) anniversary of the Vesting Commencement Date.

2. **Exercise of Option.** Prior to the Expiration Date (or such earlier date provided in Section 3 below), the Grantee may exercise this Option by delivering a Option exercise notice (an "Exercise Notice") in the form of Appendix A hereto indicating his or her election to purchase some or all of the Underlying Shares with respect to which this Option is exercisable at the time of such notice and paying the Exercise Price for the number of Underlying Shares purchased. The Option may not be exercised for any fractional shares.

(a) Termination of Affiliation. Except as the Committee may otherwise expressly provide, or as may otherwise be expressly provided in any agreement between the Company and the Grantee, if the Grantee has a Termination of Affiliation with the Company and all of its Affiliates, the period within which the Grantee may exercise this Option may be subject to earlier termination as set forth below:

(b) Termination of Affiliation Due to Death or Disability. If the Grantee's Termination of Affiliation occurs by reason of such Grantee's death or Disability, this Option may be exercised, to the extent exercisable on the date of such termination, by the Grantee or by the Grantee's legal representative or legatee for a period of twelve (12) months from the date of such termination or until the Expiration Date, if earlier.

(c) Termination for Cause. If the Grantee has a Termination of Affiliation for Cause (as defined below), all Options (unvested and vested) shall terminate immediately**.**

(d) Other Termination. If the Grantee's Termination of Affiliation occurs for any reason other than death or Disability or Cause, this Option may be exercised, to the extent exercisable on the date of such termination, by the Grantee until the earlier of (i) the date that is three months from the date of the Grantee's Termination of Affiliation or (ii) the Expiration Date.

(e) Treatment of Unvested Options on Termination of Affiliation. Any portion of this Option that is not exercisable on the date of the Grantee's Termination of Affiliation for any reason shall terminate immediately and be null and void and of no further force and effect.

3. **Status of Option.** This Option is intended to qualify as an "incentive stock option" as defined in Section 422(b) of the Internal Revenue Code of 1986, as amended. Notwithstanding any provision in this Agreement to the contrary, to the extent that any portion of this Option exceeds $100,000 Limit (as described in Section 6.4(d) and (e) of the Plan) such portion of the Option shall not qualify as an "incentive stock option." In addition, this Option shall not qualify as an "incentive stock option" with respect to the portion of the Option that is exercised more than 3 months after the Grantee ceases to be an employee of the Company or any Subsidiary for any reason other than the Grantee's death or Disability.

4. **Disqualifying Dispositions**. Within 10 days after any Disqualifying Disposition (as defined in Section 6.4(f) of the Plan) of Option Shares acquired upon exercise of this Option, the Grantee shall notify the Company of such Disqualifying Disposition.

5. **Withholding Taxes**. The Grantee agrees to make appropriate arrangements with the Company (or the appropriate Affiliate that employed the Grantee) for the satisfaction of all applicable Federal, state, local and foreign income and employment tax withholding requirements, if any, arising in connection with the exercise of the Option. The Grantee acknowledges and agrees that the Company may refuse to honor the exercise and refuse to deliver Shares if the Grantee does not deliver or make arrangements to deliver such required withholding amounts to the Company at the time of exercise.

6. **Miscellaneous Provisions.**

(a) Change and Modifications. This Agreement may not be orally changed, modified or terminated, nor shall any oral waiver of any of its terms be effective. This Agreement may be changed, modified or terminated only by an agreement in writing signed by the Company and the Grantee.

(b) Notices. All notices, requests, consents and other communications shall be in writing and be deemed given when delivered personally, by telex or facsimile transmission or when received if mailed by first class registered or certified mail, postage prepaid. Notices to the Company or the Grantee shall be addressed as set forth underneath their signatures below, or to such other address or addresses as may have been furnished by such party in writing to the other.

(c) Counterparts. For the convenience of the parties and to facilitate execution, this Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same document.

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned as of the date first above written.

ELECTROCORE, INC.

By: _____
Name:
Title:

The undersigned hereby acknowledges receiving and reviewing a copy of the Plan and understands that the Option granted hereby is subject to the terms of the Plan and of this Agreement. This Agreement is hereby accepted, and the terms and conditions thereof and of the Plan hereby agreed to, by the undersigned as of the date first above written.

GRANTEE:

_____
Name:

DESIGNATION OF BENEFICIARY: _____

Appendix A

STOCK OPTION EXERCISE NOTICE

electroCore, Inc.
Attention: Corporate Secretary

_____

_____

_____

Pursuant to the terms of the stock option agreement between myself and electroCore, Inc. (the "Company") dated (the "Agreement"), under the Company's 2018 Omnibus Equity Compensation Plan, I, [Insert Name] , hereby [Circle One] partially/fully exercise such Option by including herein payment in the amount of $ representing the purchase price for [Fill in number of Underlying Shares] Option Shares. I have chosen the following form(s) of payment:

[ ] 1. Cash

[ ] 2. Personal, certified or bank check payable to **electroCore, Inc.**

[ ] 3. Wire transfer, or

[ ] 4. through the sale of Option Shares through a broker-dealer to whom I have submitted an irrevocable notice of exercise and irrevocable instructions to deliver promptly to the Company the amount of sale proceeds sufficient to pay the exercise price for such Option Shares, together with the amount of applicable federal, state, local or foreign withholding taxes payable by me by reason of such exercise.

Sincerely yours,

_____

Name:

Address:

_____

_____

_____

Exhibit 10.6

NONQUALIFIED STOCK OPTION AGREEMENT
UNDER THE ELECTROCORE, INC.
2018 OMNIBUS EQUITY COMPENSATION PLAN

Name of Grantee:	_____	(the "Grantee")
No. of Shares Underlying Options:	_____	(the "Underlying Shares")
Grant Date:	_____	(the "Grant Date")
Vesting Commencement Date:	_____	("Vesting Commencement Date")
Expiration Date:	_____	(the "Expiration Date")
Exercise Price/Share:	$ _____	(the "Exercise Price")

Pursuant to the electroCore, Inc. 2018 Omnibus Equity Compensation Plan (the "Plan"), electroCore, Inc., a Delaware corporation (together with all successors thereto, the "Company"), hereby grants to the Grantee, an Option to purchase, on or prior to the Expiration Date (or such earlier date as provided in Section 3 below), all or any part of the number of Shares of Common Stock of the Company indicated above (the "Underlying Shares," with such Shares once issued being referred to herein as "Option Shares") at the Exercise Price per share indicated above.

Notwithstanding anything in this Nonqualified Stock Option Agreement (the "Agreement") to the contrary, this Option and any Option Shares acquired upon shall be subject to, and governed by, all the terms and conditions of the Plan. To the extent there is any inconsistency between the terms of the Plan and of this Agreement, the terms of the Plan shall control.

All capitalized terms used in this Agreement and not otherwise defined shall have the respective meanings given such terms in the Plan.

1. **Vesting and Exercisability**. Subject to such further limitations as are provided in the Plan and as set forth herein, the Option shall vest and become exercisable: with respect to 25% of the Underlying Shares on each of the first (1st), second (2nd), third (3rd) and fourth (4th) anniversaries of the Vesting Commencement Date until the Option is fully vested and exercisable on the fourth (4th) anniversary of the Vesting Commencement Date.

2. **Exercise of Option.** Prior to the Expiration Date (or such earlier date provided in Section 3 below), the Grantee may exercise this Option by delivering a Option exercise notice (an "Exercise Notice") in the form of Appendix A hereto indicating his or her election to purchase some or all of the Underlying Shares with respect to which this Option is exercisable at the time of such notice and paying the Exercise Price for the number of Underlying Shares purchased. The Option may not be exercised for any fractional shares.

(a) Termination of Affiliation. Except as the Committee may otherwise expressly provide, or as may otherwise be expressly provided in any agreement between the Company and the Grantee, if the Grantee has a Termination of Affiliation with the Company and all of its Affiliates, the period within which the Grantee may exercise this Option may be subject to earlier termination as set forth below:

(b) Termination of Affiliation Due to Death or Disability. If the Grantee's Termination of Affiliation occurs by reason of such Grantee's death or Disability, this Option may be exercised, to the extent exercisable on the date of such termination, by the Grantee or by the Grantee's legal representative or legatee for a period of twelve (12) months from the date of such termination or until the Expiration Date, if earlier.

(c) Termination for Cause. If the Grantee has a Termination of Affiliation for Cause (as defined below), all Options (unvested and vested) shall terminate immediately**.**

(d) Other Termination. If the Grantee's Termination of Affiliation occurs for any reason other than death or Disability or Cause, this Option may be exercised, to the extent exercisable on the date of such termination, by the Grantee until the earlier of (i) the date that is three months from the date of the Grantee's Termination of Affiliation or (ii) the Expiration Date.

(e) Treatment of Unvested Options on Termination of Affiliation. Any portion of this Option that is not exercisable on the date of the Grantee's Termination of Affiliation for any reason shall terminate immediately and be null and void and of no further force and effect.

3. **Status of Option.** This Option is intended not to qualify as an "incentive stock option" as defined in Section 422(b) of the Internal Revenue Code of 1986, as amended.

4. **Withholding Taxes**. The Grantee agrees to make appropriate arrangements with the Company (or the appropriate Affiliate that employed the Grantee) for the satisfaction of all applicable Federal, state, local and foreign income and employment tax withholding requirements, if any, arising in connection with the exercise of the Option. The Grantee acknowledges and agrees that the Company may refuse to honor the exercise and refuse to deliver Shares if the Grantee does not deliver or make arrangements to deliver such required withholding amounts to the Company at the time of exercise.

5. **Miscellaneous Provisions.**

(a) Change and Modifications. This Agreement may not be orally changed, modified or terminated, nor shall any oral waiver of any of its terms be effective. This Agreement may be changed, modified or terminated only by an agreement in writing signed by the Company and the Grantee.

(b) Notices. All notices, requests, consents and other communications shall be in writing and be deemed given when delivered personally, by telex or facsimile transmission or when received if mailed by first class registered or certified mail, postage prepaid. Notices to the Company or the Grantee shall be addressed as set forth underneath their signatures below, or to such other address or addresses as may have been furnished by such party in writing to the other.

(c) Counterparts. For the convenience of the parties and to facilitate execution, this Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same document.

[SIGNATURE PAGE FOLLOWS]

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned as of the date first above written.

ELECTROCORE, INC.

By: _____
Name:
Title:

The undersigned hereby acknowledges receiving and reviewing a copy of the Plan and understands that the Option granted hereby is subject to the terms of the Plan and of this Agreement. This Agreement is hereby accepted, and the terms and conditions thereof and of the Plan hereby agreed to, by the undersigned as of the date first above written.

GRANTEE:

_____
Name:

DESIGNATION OF BENEFICIARY: _____

Appendix A

STOCK OPTION EXERCISE NOTICE

electroCore, Inc.
Attention: Corporate Secretary

_____

_____

_____

Pursuant to the terms of the stock option agreement between myself and electroCore, Inc. (the "Company") dated (the "Agreement"), under the Company's 2018 Omnibus Equity Compensation Plan, I, [Insert Name] , hereby [Circle One] partially/fully exercise such Option by including herein payment in the amount of $ representing the purchase price for [Fill in number of Underlying Shares] Option Shares. I have chosen the following form(s) of payment:

[ ] 1. Cash

[ ] 2. Personal, certified or bank check payable to **electroCore, Inc.**

[ ] 3. Wire transfer, or

[ ] 4. through the sale of Option Shares through a broker-dealer to whom I have submitted an irrevocable notice of exercise and irrevocable instructions to deliver promptly to the Company the amount of sale proceeds sufficient to pay the exercise price for such Option Shares, together with the amount of federal, state, local or foreign withholding taxes payable by me by reason of such exercise.

Sincerely yours,

_____

Name:

Address:

_____

_____

_____

Exhibit 10.7

RESTRICTED STOCK UNIT AGREEMENT
UNDER THE ELECTOCORE, INC.
2018 OMNIBUS EQUITY COMPENSATION PLAN

Pursuant to the electroCore, Inc. 2018 Omnibus Equity Compensation Plan (the "Plan"), electroCore, Inc., a Delaware corporation (together with all successors thereto, the "Company"), hereby enters into this Restricted Stock Unit Agreement with the undersigned employee (the "Grantee"), pursuant to which the Company will issue the number of shares of the Company's common stock equal to the number of Restricted Stock Units ("RSU's") granted hereunder in accordance with the terms set forth in this agreement (the "Agreement").

Notwithstanding anything in this Agreement to the contrary, the grant of the RSUs pursuant to this Agreement and the issuance of shares of the Company's common stock in settlement of such RSUs shall be subject to, and governed by, all the terms and conditions of the Plan. To the extent there is any inconsistency between the terms of the Plan and of this Agreement, the terms of the Plan shall control.

All capitalized terms used in this Agreement and not otherwise defined shall have the respective meanings given such terms in the Plan.

Number of RSUs Granted:	**[ ]**
Grant Date:	**[, 20]**

1. General. Each RSU represents a right to receive one share of the Company's common stock (a "Share") in accordance with and subject to the terms and conditions of this Agreement and the Plan. By execution of this Award Agreement, the Grantee agrees to be bound by all of the terms and provisions of the Plan, the rules and regulations under the Plan adopted from time to time, and the decisions and determinations of the Committee made from time to time.

2. **Account for Grantee**. The Company shall maintain a bookkeeping account for the Grantee (the "Account") reflecting the number of RSUs then credited to the Grantee hereunder as a result of such grant of RSUs.

3. **Nontransferability.** The Grantee may not transfer RSUs or any rights hereunder to any third party other than by will or the laws of descent and distribution.

4. **Vesting and Forfeiture.** All RSUs shall vest on the [third] anniversary of the Grant Date (the "Vesting Date") if the Grantee remains in continuous service with the Company or an Affiliate through such Vesting Date. If the Grantee has a Termination of Affiliation for any reason prior to the Vesting Date, all outstanding RSUs granted hereunder shall be forfeited without payment of any consideration and this Agreement shall be of no further force or effect on the date of such forfeiture.

5. **Settlement—Delivery of Shares**. The Company shall issue the Shares underlying the outstanding RSUs (if any) that have vested pursuant to Section 4 to the Grantee (or to the Grantee's designated beneficiary if the Grantee has died) in settlement of the Grantee's vested RSUs as soon as reasonably practicable after the Vesting Date.

6. **Miscellaneous.**

(a) Change and Modifications. This Agreement may not be orally changed, modified or terminated, nor shall any oral waiver of any of its terms be effective. This Agreement may be changed, modified or terminated only by an agreement in writing signed by the Company and the Grantee.

(b) Notices. All notices, requests, consents and other communications shall be in writing and be deemed given when delivered personally, by telex or facsimile transmission or when received if mailed by first class registered or certified mail, postage prepaid. Notices to the Company or the Grantee shall be addressed as set forth underneath their signatures below, or to such other address or addresses as may have been furnished by such party in writing to the other.

(c) Counterparts. For the convenience of the parties and to facilitate execution, this Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same document.

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned as of the date first above written.

ELECTROCORE, INC.

By: _____
Name:
Title:

Address: _____
_____
_____

The undersigned hereby acknowledges receiving and reviewing a copy of the Plan and understands that the RSUs granted herein are subject to the terms of the Plan and of this Agreement. This Agreement is hereby accepted, and the terms and conditions thereof and of the Plan hereby agreed to, by the undersigned as of the date first above written.

GRANTEE:

_____
Name:

DESIGNATION OF BENEFICIARY: _____

Exhibit 10.8

DIRECTORS INAUGURAL DEFERRED STOCK UNIT AGREEMENT
UNDER THE ELECTROCORE, INC.
2018 OMNIBUS EQUITY COMPENSATION PLAN

Pursuant to the electroCore, Inc. 2018 Omnibus Equity Compensation Plan (the "Plan"), electroCore, Inc., a Delaware corporation (together with all successors thereto, the "Company"), hereby enters into this Directors Deferred Stock Unit Agreement with the undersigned director (the "Grantee"), pursuant to which the Company will issue the number of shares of the Company's common stock equal to the number of Deferred Stock Units ("DSU's") granted hereunder in accordance with the terms set forth in this agreement (the "Agreement").

Notwithstanding anything in this Agreement to the contrary, the grant of the DSUs pursuant to this Agreement and the issuance of shares of the Company's common stock in settlement of such DSUs shall be subject to, and governed by, all the terms and conditions of the Plan. To the extent there is any inconsistency between the terms of the Plan and of this Agreement, the terms of the Plan shall control.

All capitalized terms used in this Agreement and not otherwise defined shall have the respective meanings given such terms in the Plan.

Number of DSUs Granted:	**[ ]**
Grant Date:	**[_____, 20____]**

1. **General.** Each DSU represents a right to receive one share of the Company's common stock (a "Share") in accordance with and subject to the terms and conditions of this Agreement and the Plan. By execution of this Award Agreement, the Grantee agrees to be bound by all of the terms and provisions of the Plan, the rules and regulations under the Plan adopted from time to time, and the decisions and determinations of the Board made from time to time.

2. **Account for Grantee.** The Company shall maintain a bookkeeping account for the Grantee (the "Account") reflecting the number of DSUs then credited to the Grantee hereunder as a result of such grant of DSUs.

3. **Nontransferability.** The Grantee may not transfer DSUs or any rights hereunder to any third party other than by will or the laws of descent and distribution.

4. **Vesting and Forfeiture.** The DSUs shall vest in three equal installments as follows: (a) one third of the DSUs shall vest on the close of business the day prior to the first annual meeting of the Company's stockholders following the Grant Date; (b) one third of the DSUs shall vest on the close of business the day prior to the second annual meeting of the Company's stockholders following the Grant Date and (c) one third of the DSUs shall vest on the close of business the day prior to the third annual meeting of the Company's stockholders following the Grant Date (each a "Vesting Date") if the Grantee remains in continuous service with the Company or an Affiliate through such Vesting Date. If the Grantee has a Termination of Affiliation for any reason prior to a Vesting Date, all unvested DSUs of such Termination of Affiliation shall be forfeited without payment of any consideration and this Agreement shall be of no further force or effect on the date of such forfeiture.

5. **Settlement—Delivery of Shares**. The Company shall issue the Shares underlying the outstanding DSUs that have vested pursuant to Section 4 to the Grantee (or to the Grantee's designated beneficiary if the Grantee has died) in settlement of such DSUs as soon as reasonably practicable on or after the Grantee's Separation from Service.

6. **Miscellaneous.**

(a) Change and Modifications. This Agreement may not be orally changed, modified or terminated, nor shall any oral waiver of any of its terms be effective. This Agreement may be changed, modified or terminated only by an agreement in writing signed by the Company and the Grantee.

(b) Notices. All notices, requests, consents and other communications shall be in writing and be deemed given when delivered personally, by telex or facsimile transmission or when received if mailed by first class registered or certified mail, postage prepaid. Notices to the Company or the Grantee shall be addressed as set forth underneath their signatures below, or to such other address or addresses as may have been furnished by such party in writing to the other.

(c) Counterparts. For the convenience of the parties and to facilitate execution, this Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same document.

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned as of the date first above written.

ELECTROCORE, INC.

By: _____
Name:
Title:

Address: _____

_____

_____

The undersigned hereby acknowledges receiving and reviewing a copy of the Plan and understands that the DSUs granted herein are subject to the terms of the Plan and of this Agreement. This Agreement is hereby accepted, and the terms and conditions thereof and of the Plan hereby agreed to, by the undersigned as of the date first above written.

GRANTEE:

Name:

DESIGNATION OF BENEFICIARY: _____

Exhibit 10.9

DIRECTORS INAUGURAL STOCK OPTION AGREEMENT
UNDER THE ELECTROCORE, INC.
2018 OMNIBUS EQUITY COMPENSATION PLAN

Name of Grantee:	_____	(the "Grantee")
No. of Shares Underlying Options:	_____	(the "Underlying Shares")
Grant Date:	_____	(the "Grant Date")
Expiration Date:	_____	(the "Expiration Date")
Exercise Price/Share:	**$** _____	(the "Exercise Price")

Pursuant to the electroCore, Inc. 2018 Omnibus Equity Compensation Plan (the "Plan"), electroCore, Inc., a Delaware corporation (together with all successors thereto, the "Company"), hereby grants to the Grantee, an Option to purchase, on or prior to the Expiration Date (or such earlier date as provided in Section 3 below), all or any part of the number of Shares of Common Stock of the Company indicated above (the "Underlying Shares," with such Shares once issued being referred to herein as "Option Shares") at the Exercise Price per share indicated above.

Notwithstanding anything in this Nonqualified Stock Option Agreement (the "Agreement") to the contrary, this Option and any Option Shares acquired upon shall be subject to, and governed by, all the terms and conditions of the Plan. To the extent there is any inconsistency between the terms of the Plan and of this Agreement, the terms of the Plan shall control.

All capitalized terms used in this Agreement and not otherwise defined shall have the respective meanings given such terms in the Plan.

1. **Vesting and Exercisability**. Subject to such further limitations as are provided in the Plan and as set forth herein, the Option shall vest and become exercisable as follows: (a) one-third of the Underlying Shares shall vest and become exercisable on the close of business the day prior to the first annual meeting of the Company's stockholders following the Grant Date, (b) an additional one-third of the Underlying Shares shall vest and become exercisable on the close of business the day prior to the second annual meeting of the Company's stockholders following the Grant Date; and (c) the final one-third of the Underlying Shares shall vest and become exercisable on the close of business the day prior to the third annual meeting of the Company's stockholders following the Grant Date .

2. **Exercise of Option.** Prior to the Expiration Date (or such earlier date provided in Section 3 below), the Grantee may exercise this Option by delivering a Option exercise notice (an "Exercise Notice") in the form of Appendix A hereto indicating his or her election to purchase some or all of the Underlying Shares with respect to which this Option is exercisable at the time of such notice and paying the Exercise Price for the number of Underlying Shares purchased. The Option may not be exercised for any fractional shares.

(a) Termination of Affiliation. Except as the Board may otherwise expressly provide, or as may otherwise be expressly provided in any agreement between the Company and the Grantee, if the Grantee has a Termination of Affiliation with the Company and all of its Affiliates, the period within which the Grantee may exercise this Option may be subject to earlier termination as set forth below:

(b) Termination of Affiliation Due to Death or Disability. If the Grantee's Termination of Affiliation occurs by reason of such Grantee's death or Disability, this Option may be exercised, to the extent exercisable on the date of such termination, by the Grantee or by the Grantee's legal representative or legatee for a period of twelve (12) months from the date of such termination or until the Expiration Date, if earlier.

(c) Other Termination. If the Grantee's Termination of Affiliation occurs for any reason other than death or Disability, this Option may be exercised, to the extent exercisable on the date of such termination, by the Grantee until the earlier of (i) the date that is three months from the date of the Grantee's Termination of Affiliation or (ii) the Expiration Date.

(d) Treatment of Unvested Options on Termination of Affiliation. Any portion of this Option that is not exercisable on the date of the Grantee's Termination of Affiliation for any reason shall terminate immediately and be null and void and of no further force and effect.

3. **Status of Option.** This Option is intended not to qualify as an "incentive stock option" as defined in Section 422(b) of the Internal Revenue Code of 1986, as amended.

4. **Withholding Taxes**. The Grantee agrees to make appropriate arrangements with the Company (or the appropriate Affiliate that employed the Grantee) for the satisfaction of all applicable Federal, state, local and foreign income and employment tax withholding requirements, if any, arising in connection with the exercise of the Option. The Grantee acknowledges and agrees that the Company may refuse to honor the exercise and refuse to deliver Shares if the Grantee does not deliver or make arrangements to deliver such required withholding amounts to the Company at the time of exercise.

5. **Miscellaneous Provisions.**

(a) Change and Modifications. This Agreement may not be orally changed, modified or terminated, nor shall any oral waiver of any of its terms be effective. This Agreement may be changed, modified or terminated only by an agreement in writing signed by the Company and the Grantee.

(b) Notices. All notices, requests, consents and other communications shall be in writing and be deemed given when delivered personally, by telex or facsimile transmission or when received if mailed by first class registered or certified mail, postage prepaid. Notices to the Company or the Grantee shall be addressed as set forth underneath their signatures below, or to such other address or addresses as may have been furnished by such party in writing to the other.

(c) Counterparts. For the convenience of the parties and to facilitate execution, this Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same document.

[SIGNATURE PAGE FOLLOWS]

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned as of the date first above written.

ELECTROCORE, INC.

By: _____
Name:
Title:

The undersigned hereby acknowledges receiving and reviewing a copy of the Plan and understands that the Option granted hereby is subject to the terms of the Plan and of this Agreement. This Agreement is hereby accepted, and the terms and conditions thereof and of the Plan hereby agreed to, by the undersigned as of the date first above written.

GRANTEE:

_____
Name:

DESIGNATION OF BENEFICIARY: _____

Appendix A

STOCK OPTION EXERCISE NOTICE

electroCore, Inc.
Attention: Corporate Secretary

_____
_____
_____

Pursuant to the terms of the stock option agreement between myself and electroCore, Inc. (the "Company") dated _____ (the "Agreement"), under the Company's 2018 Omnibus Equity Compensation Plan, I, [Insert Name] _____, hereby [Circle One] partially/fully exercise such Option by including herein payment in the amount of $_____ representing the purchase price for [Fill in number of Underlying Shares] _____ Option Shares. I have chosen the following form(s) of payment:

[ ] 1. Cash

[ ] 2. Personal, certified or bank check payable to **electroCore, Inc.**

[ ] 3. Wire transfer, or

[ ] 4. through the sale of Option Shares through a broker-dealer to whom I have submitted an irrevocable notice of exercise and irrevocable instructions to deliver promptly to the Company the amount of sale proceeds sufficient to pay the exercise price for such Option Shares, together with the amount of federal, state, local or foreign withholding taxes payable by me by reason of such exercise.

Sincerely yours,

_____
Name:

Address:

_____
_____
_____

Exhibit 10.10

DIRECTORS INAUGURAL RESTRICTED STOCK UNIT AGREEMENT
UNDER THE ELECTOCORE, INC.
2018 OMNIBUS EQUITY COMPENSATION PLAN

Pursuant to the electroCore, Inc. 2018 Omnibus Equity Compensation Plan (the "Plan"), electroCore, Inc., a Delaware corporation (together with all successors thereto, the "Company"), hereby enters into this Restricted Stock Unit Agreement with the undersigned employee (the "Grantee"), pursuant to which the Company will issue the number of shares of the Company's common stock equal to the number of Restricted Stock Units ("RSU's") granted hereunder in accordance with the terms set forth in this agreement (the "Agreement").

Notwithstanding anything in this Agreement to the contrary, the grant of the RSUs pursuant to this Agreement and the issuance of shares of the Company's common stock in settlement of such RSUs shall be subject to, and governed by, all the terms and conditions of the Plan. To the extent there is any inconsistency between the terms of the Plan and of this Agreement, the terms of the Plan shall control.

All capitalized terms used in this Agreement and not otherwise defined shall have the respective meanings given such terms in the Plan.

Number of RSUs Granted:	**[ ]**
Grant Date:	**[_____, 20__]**

1. **General.** Each RSU represents a right to receive one share of the Company's common stock (a "Share") in accordance with and subject to the terms and conditions of this Agreement and the Plan. By execution of this Award Agreement, the Grantee agrees to be bound by all of the terms and provisions of the Plan, the rules and regulations under the Plan adopted from time to time, and the decisions and determinations of the Committee made from time to time.

2. **Account for Grantee**. The Company shall maintain a bookkeeping account for the Grantee (the "Account") reflecting the number of RSUs then credited to the Grantee hereunder as a result of such grant of RSUs.

3. **Nontransferability.** The Grantee may not transfer RSUs or any rights hereunder to any third party other than by will or the laws of descent and distribution.

4. **Vesting and Forfeiture.** The RSUs shall vest in three equal installments as follows: (a) one third of the RSUs shall vest on the close of business the day prior to the first annual meeting of the Company's stockholders following the Grant Date; (b) one third of the RSUs shall vest on the close of business the day prior to the second annual meeting of the Company's stockholders following the Grant Date and (c) one third of the RSUs shall vest on the close of business the day prior to the third annual meeting of the Company's stockholders following the Grant Date (each a "Vesting Date") if the Grantee remains in continuous service with the Company or an Affiliate through such Vesting Date. If the Grantee has a Termination of Affiliation for any reason prior to a Vesting Date, all unvested RSUs of such Termination of Affiliation shall be forfeited without payment of any consideration and this Agreement shall be of no further force or effect on the date of such forfeiture.

5. **Settlement—Delivery of Shares**. The Company shall issue the Shares underlying the portion of the RSUs granted hereunder that have vested pursuant to Section 4 to the Grantee (or to the Grantee's designated beneficiary if the Grantee has died) in settlement of the Grantee's vested RSUs as soon as reasonably practicable after the applicable Vesting Date.

6. **Miscellaneous.**

(a) Change and Modifications. This Agreement may not be orally changed, modified or terminated, nor shall any oral waiver of any of its terms be effective. This Agreement may be changed, modified or terminated only by an agreement in writing signed by the Company and the Grantee.

(b) Notices. All notices, requests, consents and other communications shall be in writing and be deemed given when delivered personally, by telex or facsimile transmission or when received if mailed by first class registered or certified mail, postage prepaid. Notices to the Company or the Grantee shall be addressed as set forth underneath their signatures below, or to such other address or addresses as may have been furnished by such party in writing to the other.

(c) Counterparts. For the convenience of the parties and to facilitate execution, this Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same document.

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned as of the date first above written.

ELECTROCORE, INC.

By: _____
Name:
Title:

Address: _____
_____
_____

The undersigned hereby acknowledges receiving and reviewing a copy of the Plan and understands that the RSUs granted herein are subject to the terms of the Plan and of this Agreement. This Agreement is hereby accepted, and the terms and conditions thereof and of the Plan hereby agreed to, by the undersigned as of the date first above written.

GRANTEE:

_____
Name:

DESIGNATION OF BENEFICIARY:_____

Exhibit 10.11

DIRECTORS ANNUAL DEFERRED STOCK UNIT AGREEMENT
UNDER THE ELECTOCORE, INC.
2018 OMNIBUS EQUITY COMPENSATION PLAN

Pursuant to the electroCore, Inc. 2018 Omnibus Equity Compensation Plan (the "Plan"), electroCore, Inc., a Delaware corporation (together with all successors thereto, the "Company"), hereby enters into this Directors Deferred Stock Unit Agreement with the undersigned director (the "Grantee"), pursuant to which the Company will issue the number of shares of the Company's common stock equal to the number of Deferred Stock Units ("DSU's") granted hereunder in accordance with the terms set forth in this agreement (the "Agreement").

Notwithstanding anything in this Agreement to the contrary, the grant of the DSUs pursuant to this Agreement and the issuance of shares of the Company's common stock in settlement of such DSUs shall be subject to, and governed by, all the terms and conditions of the Plan. To the extent there is any inconsistency between the terms of the Plan and of this Agreement, the terms of the Plan shall control.

All capitalized terms used in this Agreement and not otherwise defined shall have the respective meanings given such terms in the Plan.

Number of DSUs Granted:	**[ ]**
Grant Date:	**[_____, 20__]**

1. **General.** Each DSU represents a right to receive one share of the Company's common stock (a "Share") in accordance with and subject to the terms and conditions of this Agreement and the Plan. By execution of this Award Agreement, the Grantee agrees to be bound by all of the terms and provisions of the Plan, the rules and regulations under the Plan adopted from time to time, and the decisions and determinations of the Board made from time to time.

2. **Account for Grantee**. The Company shall maintain a bookkeeping account for the Grantee (the "Account") reflecting the number of DSUs then credited to the Grantee hereunder as a result of such grant of DSUs.

3. **Nontransferability.** The Grantee may not transfer DSUs or any rights hereunder to any third party other than by will or the laws of descent and distribution.

4. **Vesting and Forfeiture.** All DSUs shall vest on the close of business one day prior to the next annual meeting of the Company's stockholders or the date of the Grantee's death (the "Vesting Date") if the Grantee remains in continuous service as a member of the Board of Directors of the Company through such date. If the Grantee ceases to be a member of the Board of Directors for any reason other than the Grantee's death prior to the Vesting Date, all outstanding DSUs granted hereunder shall be forfeited without payment of any consideration and this Agreement shall be of no further force or effect on the date of such forfeiture.

5. **Settlement—Delivery of Shares**. The Company shall issue the Shares underlying the outstanding DSUs that have vested pursuant to Section 4 to the Grantee (or to the Grantee's designated beneficiary if the Grantee has died) in settlement of such DSUs as soon as reasonably practicable on or after the Grantee's Separation from Service.

6. **Miscellaneous.**

(a) Change and Modifications. This Agreement may not be orally changed, modified or terminated, nor shall any oral waiver of any of its terms be effective. This Agreement may be changed, modified or terminated only by an agreement in writing signed by the Company and the Grantee.

(b) Notices. All notices, requests, consents and other communications shall be in writing and be deemed given when delivered personally, by telex or facsimile transmission or when received if mailed by first class registered or certified mail, postage prepaid. Notices to the Company or the Grantee shall be addressed as set forth underneath their signatures below, or to such other address or addresses as may have been furnished by such party in writing to the other.

(c) Counterparts. For the convenience of the parties and to facilitate execution, this Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same document.

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned as of the date first above written.

ELECTROCORE, INC.

By: _____
Name:
Title:

Address: _____
_____
_____

The undersigned hereby acknowledges receiving and reviewing a copy of the Plan and understands that the DSUs granted herein are subject to the terms of the Plan and of this Agreement. This Agreement is hereby accepted, and the terms and conditions thereof and of the Plan hereby agreed to, by the undersigned as of the date first above written.

GRANTEE:

_____
Name:

DESIGNATION OF BENEFICIARY: _____

Exhibit 10.12

DIRECTORS ANNUAL STOCK OPTION AGREEMENT
UNDER THE ELECTROCORE, INC.
2018 OMNIBUS EQUITY COMPENSATION PLAN

Name of Grantee: _____ (the "Grantee")

No. of Shares Underlying Options: _____ (the "Underlying Shares")

Grant Date: _____ (the "Grant Date")

Expiration Date: _____ (the "Expiration Date")

Exercise Price/Share: **$**_____(the "Exercise Price")

Pursuant to the electroCore, Inc. 2018 Omnibus Equity Compensation Plan (the "Plan"), electroCore, Inc., a Delaware corporation (together with all successors thereto, the "Company"), hereby grants to the Grantee, an Option to purchase, on or prior to the Expiration Date (or such earlier date as provided in Section 3 below), all or any part of the number of Shares of Common Stock of the Company indicated above (the "Underlying Shares," with such Shares once issued being referred to herein as "Option Shares") at the Exercise Price per share indicated above.

Notwithstanding anything in this Nonqualified Stock Option Agreement (the "Agreement") to the contrary, this Option and any Option Shares acquired upon shall be subject to, and governed by, all the terms and conditions of the Plan. To the extent there is any inconsistency between the terms of the Plan and of this Agreement, the terms of the Plan shall control.

All capitalized terms used in this Agreement and not otherwise defined shall have the respective meanings given such terms in the Plan.

1. **Vesting and Exercisability**. Subject to such further limitations as are provided in the Plan and as set forth herein, the Option shall vest and become exercisable on the close of business the day prior to the first annual meeting of the Company's stockholders following the Grant Date.

2. **Exercise of Option.** Prior to the Expiration Date (or such earlier date provided in Section 3 below), the Grantee may exercise this Option by delivering a Option exercise notice (an "Exercise Notice") in the form of Appendix A hereto indicating his or her election to purchase some or all of the Underlying Shares with respect to which this Option is exercisable at the time of such notice and paying the Exercise Price for the number of Underlying Shares purchased. The Option may not be exercised for any fractional shares.

(a) Termination of Affiliation. Except as the Board may otherwise expressly provide, or as may otherwise be expressly provided in any agreement between the Company and the Grantee, if the Grantee has a Termination of Affiliation with the Company and all of its Affiliates, the period within which the Grantee may exercise this Option may be subject to earlier termination as set forth below:

(b) Termination of Affiliation Due to Death or Disability. If the Grantee's Termination of Affiliation occurs by reason of such Grantee's death or Disability, this Option may be exercised, to the extent exercisable on the date of such termination, by the Grantee or by the Grantee's legal representative or legatee for a period of twelve (12) months from the date of such termination or until the Expiration Date, if earlier.

(c) Other Termination. If the Grantee's Termination of Affiliation occurs for any reason other than death or Disability, this Option may be exercised, to the extent exercisable on the date of such termination, by the Grantee until the earlier of (i) the date that is three months from the date of the Grantee's Termination of Affiliation or (ii) the Expiration Date.

(d) Treatment of Unvested Options on Termination of Affiliation. Any portion of this Option that is not exercisable on the date of the Grantee's Termination of Affiliation for any reason shall terminate immediately and be null and void and of no further force and effect.

3. **Status of Option.** This Option is intended not to qualify as an "incentive stock option" as defined in Section 422(b) of the Internal Revenue Code of 1986, as amended.

4. **Withholding Taxes**. The Grantee agrees to make appropriate arrangements with the Company (or the appropriate Affiliate that employed the Grantee) for the satisfaction of all applicable Federal, state, local and foreign income and employment tax withholding requirements, if any, arising in connection with the exercise of the Option. The Grantee acknowledges and agrees that the Company may refuse to honor the exercise and refuse to deliver Shares if the Grantee does not deliver or make arrangements to deliver such required withholding amounts to the Company at the time of exercise.

5. **Miscellaneous Provisions.**

(a) Change and Modifications. This Agreement may not be orally changed, modified or terminated, nor shall any oral waiver of any of its terms be effective. This Agreement may be changed, modified or terminated only by an agreement in writing signed by the Company and the Grantee.

(b) Notices. All notices, requests, consents and other communications shall be in writing and be deemed given when delivered personally, by telex or facsimile transmission or when received if mailed by first class registered or certified mail, postage prepaid. Notices to the Company or the Grantee shall be addressed as set forth underneath their signatures below, or to such other address or addresses as may have been furnished by such party in writing to the other.

(c) Counterparts. For the convenience of the parties and to facilitate execution, this Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same document.

[SIGNATURE PAGE FOLLOWS]

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned as of the date first above written.

ELECTROCORE, INC.

By: _____
Name:
Title:

The undersigned hereby acknowledges receiving and reviewing a copy of the Plan and understands that the Option granted hereby is subject to the terms of the Plan and of this Agreement. This Agreement is hereby accepted, and the terms and conditions thereof and of the Plan hereby agreed to, by the undersigned as of the date first above written.

GRANTEE:

_____
Name:

DESIGNATION OF BENEFICIARY: _____

Appendix A

STOCK OPTION EXERCISE NOTICE

electroCore, Inc.
Attention: Corporate Secretary

_____
_____
_____

Pursuant to the terms of the stock option agreement between myself and electroCore, Inc. (the "Company") dated _____ (the "Agreement"), under the Company's 2018 Omnibus Equity Compensation Plan, I, [Insert Name] _____, hereby [Circle One] partially/fully exercise such Option by including herein payment in the amount of $_____ representing the purchase price for [Fill in number of Underlying Shares] _____ Option Shares. I have chosen the following form(s) of payment:

[ ] 1. Cash

[ ] 2. Personal, certified or bank check payable to **electroCore, Inc.**

[ ] 3. Wire transfer, or

[ ] 4. through the sale of Option Shares through a broker-dealer to whom I have submitted an irrevocable notice of exercise and irrevocable instructions to deliver promptly to the Company the amount of sale proceeds sufficient to pay the exercise price for such Option Shares, together with the amount of federal, state, local or foreign withholding taxes payable by me by reason of such exercise.

Sincerely yours,

_____
Name:

Address:

_____
_____
_____

Exhibit 10.13

DIRECTORS ANNUAL RESTRICTED STOCK UNIT AGREEMENT
UNDER THE ELECTOCORE, INC.
2018 OMNIBUS EQUITY COMPENSATION PLAN

Pursuant to the electroCore, Inc. 2018 Omnibus Equity Compensation Plan (the "Plan"), electroCore, Inc., a Delaware corporation (together with all successors thereto, the "Company"), hereby enters into this Restricted Stock Unit Agreement with the undersigned employee (the "Grantee"), pursuant to which the Company will issue the number of shares of the Company's common stock equal to the number of Restricted Stock Units ("RSU's") granted hereunder in accordance with the terms set forth in this agreement (the "Agreement").

Notwithstanding anything in this Agreement to the contrary, the grant of the RSUs pursuant to this Agreement and the issuance of shares of the Company's common stock in settlement of such RSUs shall be subject to, and governed by, all the terms and conditions of the Plan. To the extent there is any inconsistency between the terms of the Plan and of this Agreement, the terms of the Plan shall control.

All capitalized terms used in this Agreement and not otherwise defined shall have the respective meanings given such terms in the Plan.

Number of RSUs Granted:	**[ ]**
Grant Date:	**[_____, 20____]**

1. **General.** Each RSU represents a right to receive one share of the Company's common stock (a "Share") in accordance with and subject to the terms and conditions of this Agreement and the Plan. By execution of this Award Agreement, the Grantee agrees to be bound by all of the terms and provisions of the Plan, the rules and regulations under the Plan adopted from time to time, and the decisions and determinations of the Committee made from time to time.

2. **Account for Grantee**. The Company shall maintain a bookkeeping account for the Grantee (the "Account") reflecting the number of RSUs then credited to the Grantee hereunder as a result of such grant of RSUs.

3. **Nontransferability.** The Grantee may not transfer RSUs or any rights hereunder to any third party other than by will or the laws of descent and distribution.

4. **Vesting and Forfeiture.** The RSUs shall vest on the close of business the day prior to the first annual meeting of the Company's stockholders following the Grant Date (the "Vesting Date") if the Grantee remains in continuous service with the Company or an Affiliate through the Vesting Date. If the Grantee has a Termination of Affiliation for any reason prior to the Vesting Date, all outstanding RSUs granted hereunder shall be forfeited without payment of any consideration and this Agreement shall be of no further force or effect on the date of such forfeiture.

5. **Settlement—Delivery of Shares**. The Company shall issue the Shares underlying the RSUs that have vested pursuant to Section 4 to the Grantee (or to the Grantee's designated beneficiary if the Grantee has died) in settlement of the Grantee's vested RSUs as soon as reasonably practicable after the Vesting Date.

6. **Miscellaneous.**

(a) Change and Modifications. This Agreement may not be orally changed, modified or terminated, nor shall any oral waiver of any of its terms be effective. This Agreement may be changed, modified or terminated only by an agreement in writing signed by the Company and the Grantee.

(b) Notices. All notices, requests, consents and other communications shall be in writing and be deemed given when delivered personally, by telex or facsimile transmission or when received if mailed by first class registered or certified mail, postage prepaid. Notices to the Company or the Grantee shall be addressed as set forth underneath their signatures below, or to such other address or addresses as may have been furnished by such party in writing to the other.

(c) Counterparts. For the convenience of the parties and to facilitate execution, this Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same document.

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned as of the date first above written.

ELECTROCORE, INC.

By: _____
Name:
Title:

Address: _____
_____
_____

The undersigned hereby acknowledges receiving and reviewing a copy of the Plan and understands that the RSUs granted herein are subject to the terms of the Plan and of this Agreement. This Agreement is hereby accepted, and the terms and conditions thereof and of the Plan hereby agreed to, by the undersigned as of the date first above written.

GRANTEE:

Name: _____

DESIGNATION OF BENEFICIARY: _____

Exhibit 10.14

[AMENDED AND RESTATED] INDEMNIFICATION AGREEMENT

This [Amended and Restated] Indemnification Agreement ("**Agreement**"), dated as of [DATE], is by and between electroCore, Inc., a Delaware corporation (the "**Company**") and [NAME OF DIRECTOR/OFFICER] (the "**Indemnitee**").

WHEREAS, [Indemnitee is a director and/or officer of the Company] / [the Company expects Indemnitee to join the Company as a director];

[WHEREAS, the Indemnitee and the Company are parties to that certain Indemnification Agreement, dated as of [DATE] (the "**Prior Agreement**");]

WHEREAS, both the Company and Indemnitee recognize the risk of litigation and other claims being asserted against directors and officers of public companies, as well as challenges associated with obtaining liability insurance for its directors, officers, employees, stockholders, controlling persons, agents and fiduciaries, the significant increases in the cost of such insurance, and the general limitations of the coverage of such insurance;

WHEREAS, the board of directors of the Company (the "**Board**") has determined that enhancing the ability of the Company to retain and attract as directors and officers the most capable persons is in the best interests of the Company and that the Company therefore should seek to assure such persons that indemnification and insurance coverage is available; and

WHEREAS, in recognition of the need to provide Indemnitee with substantial protection against personal liability, in order to procure Indemnitee's [continued] service to the Company and to enhance Indemnitee's ability to serve the Company in an effective manner, and in order to provide such protection pursuant to express contract rights (intended to be enforceable irrespective of, among other things, any amendment to the Company's certificate of incorporation or bylaws (collectively, the "**Constituent Documents**"), any change in the composition of the Board or any change in control or business combination transaction relating to the Company), the Company wishes [to provide in this Agreement for][amend and restate the Prior Agreement in its entirety as set forth herein to provide for] the indemnification of, and the advancement of Expenses (as defined in **Section 1(f)** below) to, Indemnitee as set forth in this Agreement and for the coverage of Indemnitee under the Company's directors' and officers' liability insurance policies.

NOW, THEREFORE, in consideration of the foregoing and the Indemnitee's agreement to [continue to] provide services to the Company, the parties agree [that the Prior Agreement is hereby amended and restated in its entirety] as follows:

1. Definitions. For purposes of this Agreement, the following terms shall have the following meanings:

(a) "**Beneficial Owner**" has the meaning given to the term "beneficial owner" in Rule 13d-3 under the Securities Exchange Act of 1934, as amended (the "**Exchange Act**").

(b) "**Change in Control**" means the occurrence after the date of this Agreement of any of the following events:

(i) any Person (other than a Person who, immediately prior to the effective time of the Company's registration statement on Form S-1 filed in connection with the Company's initial public offering, is the Beneficial Owner, directly or indirectly, of securities of the Company representing 50% or more of the Company's then outstanding Voting Securities) is or becomes the Beneficial Owner, directly or indirectly, of securities of the Company representing 50% or more of the Company's then outstanding Voting Securities, unless the change in relative Beneficial Ownership of the Company's securities by any Person results solely from a reduction in the aggregate number of outstanding shares of securities entitled to vote generally in the election of directors;

(ii) any Person who, immediately prior to the effective time of the Company's registration statement on Form S-1 filed in connection with the Company's initial public offering, is the Beneficial Owner, directly or indirectly, of securities of the Company representing 50% or more of the Company's then outstanding Voting Securities, increases his Beneficial Ownership of the Company's then outstanding Voting Securities by 5% or more over the percentage so owned by such Person, unless the change in relative Beneficial Ownership of the Company's securities by any Person results solely from a reduction in the aggregate number of outstanding shares of securities entitled to vote generally in the election of directors;

(iii) the consummation of a reorganization, merger or consolidation, unless immediately following such reorganization, merger or consolidation, all of the Beneficial Owners of the Voting Securities of the Company immediately prior to such transaction beneficially own, directly or indirectly, more than 50% of the combined voting power of the outstanding Voting Securities of the entity resulting from such transaction;

(iv) during any period of two consecutive years, not including any period prior to the execution of this Agreement, individuals who at the beginning of such period constituted the Board (including for this purpose any new directors who qualify under the definition of Incumbent Directors) cease for any reason to constitute at least a majority of the Board; or

(v) the stockholders of the Company approve a plan of complete liquidation or dissolution of the Company or an agreement for the sale or disposition by the Company of all or substantially all of the Company's assets with the meaning of Section 271 of the General Corporation Law of the State of Delaware (the "**DGCL**").

(c) "**Claim**" means:

(i) any threatened, pending or completed action, suit, proceeding or alternative dispute resolution mechanism, whether civil, criminal, administrative, arbitrative, investigative or other, and whether made pursuant to federal, state or other law; or

(ii) any inquiry, hearing or investigation that the Indemnitee determines might lead to the institution of any such action, suit, proceeding or alternative dispute resolution mechanism.

(d) "**Delaware Court**" shall have the meaning ascribed to it in **Section 8(e)** below.

(e) "**Disinterested Director**" means a director of the Company who is not and was not a party to the Claim in respect of which indemnification is sought by Indemnitee.

(f) "**Expenses**" means any and all expenses, including attorneys' and experts' fees, court costs, transcript costs, travel expenses, duplicating, printing and binding costs, telephone charges, and all other costs and expenses incurred in connection with investigating, defending, being a witness in or participating in (including on appeal), or preparing to defend, be a witness or participate in, any Claim. Expenses also shall include (i) Expenses incurred in connection with any appeal resulting from any Claim, including without limitation the premium, security for, and other costs relating to any cost bond, supersedeas bond, or other appeal bond or its equivalent, and (ii) for purposes of **Section 4** only, Expenses incurred by Indemnitee in connection with the interpretation, enforcement or defense of Indemnitee's rights under this Agreement, by litigation or otherwise. Expenses, however, shall not include amounts paid in settlement by Indemnitee or the amount of judgments or fines against Indemnitee.

(g) "**Expense Advance**" means any payment of Expenses advanced to Indemnitee by the Company pursuant to **Section 3** or **Section 4** hereof.

(h) "**Incumbent Directors**" means the individuals who, as of the date immediately following the closing of the Company's initial public offering of common stock, are directors of the Company and any individual becoming a director subsequent to the date thereof whose election, nomination for election by the Company's stockholders, or appointment, was approved by a vote of at least two-thirds of the then Incumbent Directors (either by a specific vote or by approval of the proxy statement of the Company in which such person is named as a nominee for director, without objection to such nomination).

(i) "**Indemnifiable Event**" means any event or occurrence, whether occurring before, on or after the date of this Agreement, related to the fact that Indemnitee is or was a director, director designee, officer, employee or agent of the Company (which term includes any predecessor entity of the Company) or any Subsidiary of the Company, or is or was serving at the request of the Company as a director, officer, employee, member, manager, trustee or agent of any other corporation, limited liability company, partnership, joint venture, trust or other entity or

enterprise (collectively with the Company, "**Enterprise**") or by reason of an action or inaction by Indemnitee in any such capacity (whether or not serving in such capacity at the time any Loss is incurred for which indemnification can be provided under this Agreement).

(j) "**Independent Counsel**" means a law firm, or a member of a law firm, that is experienced in matters of corporation law and neither presently performs, nor in the past three years has performed, services for either: (i) the Company or Indemnitee (other than in connection with matters concerning Indemnitee under this Agreement or of other indemnitees under similar agreements) or (ii) any other party to the Claim giving rise to a claim for indemnification hereunder. Notwithstanding the foregoing, the term "Independent Counsel" shall not include any person who, under the applicable standards of professional conduct then prevailing, would have a conflict of interest in representing either the Company or Indemnitee in an action to determine Indemnitee's rights under this Agreement.

(k) "**Losses**" means any and all Expenses, damages, losses, liabilities, judgments, fines, penalties (whether civil, criminal or other), ERISA excise taxes, amounts paid or payable in settlement, including any interest, assessments, any federal, state, local or foreign taxes imposed as a result of the actual or deemed receipt of any payments under this Agreement and all other charges paid or payable in connection with investigating, defending, being a witness in or participating in (including on appeal), or preparing to defend, be a witness or participate in, any Claim.

(l) "**Person**" means any individual, corporation, firm, partnership, joint venture, limited liability company, estate, trust, business association, organization, governmental entity or other entity and includes the meaning set forth in Sections 13(d) and 14(d) of the Exchange Act.

(m) "**Standard of Conduct Determination**" shall have the meaning ascribed to it in **Section 8(b)** below.

(n) "**Subsidiary**" means any entity for which the Company, directly or indirectly, owns 50% or more of the outstanding voting securities of such entity.

(o) "**Voting Securities**" means any securities of the Company that vote generally in the election of directors.

2. Services to the Company. Indemnitee agrees to [serve/continue to serve] as a director or officer of the Company for so long as Indemnitee is duly elected or appointed or until Indemnitee tenders his or her resignation or is no longer serving in such capacity. This Agreement shall not be deemed an employment agreement between the Company (or any subsidiaries or any Enterprise) and Indemnitee. Indemnitee specifically acknowledges that his or her service to the Company or any subsidiaries or any Enterprise is at will and the Indemnitee may be discharged at any time for any reason, with or without cause, except as may be otherwise provided in any written employment agreement between Indemnitee and the Company (or any of its subsidiaries or Enterprise), other applicable formal severance policies duly adopted by the Board or, with respect to service as a director or officer of the Company, by the Company's Constituent Documents or Delaware law.

3. Advancement of Expenses. Indemnitee shall have the right to advancement by the Company, prior to the final disposition of any Claim by final adjudication to which there are no further rights of appeal, of any and all Expenses actually and reasonably paid or incurred by Indemnitee in connection with any Claim arising out of an Indemnifiable Event. Indemnitee's right to such advancement is not subject to the satisfaction of any standard of conduct. Without limiting the generality or effect of the foregoing, within 30 days after any request by Indemnitee, the Company shall, in accordance with such request, (a) pay such Expenses on behalf of Indemnitee, (b) advance to Indemnitee funds in an amount sufficient to pay such Expenses, or (c) reimburse Indemnitee for such Expenses. In connection with any request for Expense Advances, Indemnitee shall not be required to provide any documentation or information to the extent that the provision thereof would undermine or otherwise jeopardize attorney-client privilege. Execution and delivery to the Company of this Agreement by Indemnitee constitutes an undertaking by the Indemnitee to repay any amounts paid, advanced or reimbursed by the Company pursuant to this **Section 3** in respect of Expenses relating to, arising out of or resulting from any Claim in respect of which it shall be determined, pursuant to **Section 8**, following the final disposition of such Claim, that Indemnitee is not entitled to indemnification hereunder. No other form of undertaking shall be required other than the execution of this Agreement. Indemnitee's obligation to reimburse the Company for Expense Advances shall be unsecured and no interest shall be charged thereon.

4. Indemnification for Expenses in Enforcing Rights. To the fullest extent allowable under applicable law, the Company shall also indemnify against, and, if requested by Indemnitee, shall advance to Indemnitee subject to and in accordance with **Section 3**, any Expenses actually and reasonably paid or incurred by Indemnitee in connection with any action or proceeding by Indemnitee for (a) indemnification or reimbursement or advance payment of Expenses by the Company under any provision of this Agreement, or under any other agreement or provision of the Constituent Documents now or hereafter in effect relating to Claims relating to Indemnifiable Events, and/or (b) recovery under any directors' and officers' liability insurance policies maintained by the Company; provided, however, in the event that Indemnitee is ultimately determined not to be entitled to such indemnification or insurance recovery, as the case may be, then all amounts advanced under this **Section 4** shall be repaid. Indemnitee shall be required to reimburse the Company in the event that a final judicial determination is made that such action brought by Indemnitee was frivolous or not made in good faith.

5. Partial Indemnity. If Indemnitee is entitled under any provision of this Agreement to indemnification by the Company for a portion of any Losses in respect of a Claim related to an Indemnifiable Event but not for the total amount thereof, the Company shall nevertheless indemnify Indemnitee for the portion thereof to which Indemnitee is entitled.

6. Notification and Defense of Claims.

(a) Notification of Claims. Indemnitee shall notify the Company in writing as soon as practicable of any Claim which could relate to an Indemnifiable Event or for which Indemnitee could seek Expense Advances, including a brief description (based upon information then available to Indemnitee) of the nature of, and the facts underlying, such Claim. The failure by Indemnitee to timely notify the Company hereunder shall not relieve the Company from any liability hereunder unless the Company's ability to participate in the defense of such claim was materially and adversely affected by such failure.

(b) Defense of Claims. The Company shall be entitled to participate in the defense of any Claim relating to an Indemnifiable Event at its own expense and, except as otherwise provided below, to the extent the Company so wishes, it may assume the defense thereof with counsel reasonably satisfactory to Indemnitee. After notice from the Company to Indemnitee of its election to assume the defense of any such Claim, the Company shall not be liable to Indemnitee under this Agreement or otherwise for any Expenses subsequently directly incurred by Indemnitee in connection with Indemnitee's defense of such Claim other than reasonable costs of investigation or as otherwise provided below. Indemnitee shall have the right to employ its own legal counsel in such Claim, but all Expenses related to such counsel incurred after notice from the Company of its assumption of the defense shall be at Indemnitee's own expense; provided, however, that if (i) Indemnitee's employment of its own legal counsel has been authorized by the Company, (ii) Indemnitee has reasonably determined that there may be a conflict of interest between Indemnitee and the Company in the defense of such Claim, (iii) after a Change in Control, Indemnitee's employment of its own counsel has been approved by the Independent Counsel or (iv) the Company shall not in fact have employed counsel to assume the defense of such Claim, then Indemnitee shall be entitled to retain its own separate counsel (but not more than one law firm plus, if applicable, local counsel in respect of any such Claim) and all Expenses related to such separate counsel shall be borne by the Company.

7. Procedure upon Application for Indemnification. In order to obtain indemnification pursuant to this Agreement, Indemnitee shall submit to the Company a written request therefor, including in such request such documentation and information as is reasonably available to Indemnitee and is reasonably necessary to determine whether and to what extent Indemnitee is entitled to indemnification following the final disposition of the Claim, provided that documentation and information need not be so provided to the extent that the provision thereof would undermine or otherwise jeopardize attorney-client privilege. Indemnification shall be made insofar as the Company determines Indemnitee is entitled to indemnification in accordance with **Section 8** below.

8. Determination of Right to Indemnification.

(a) Mandatory Indemnification; Indemnification as a Witness.

(i) To the extent that Indemnitee shall have been successful on the merits or otherwise in defense of any Claim relating to an Indemnifiable Event or any portion thereof or in defense of any issue or matter therein, including without limitation dismissal without prejudice, Indemnitee shall be indemnified against all Losses relating to such Claim in accordance with **Section 16** to the fullest extent allowable by law, and no Standard of Conduct Determination (as defined in **Section 8(b)**) shall be required.

(ii) To the extent that Indemnitee's involvement in a Claim relating to an Indemnifiable Event is to prepare to serve and serve as a witness, and not as a party, the Indemnitee shall be indemnified against all Losses incurred in connection therewith to the fullest extent allowable by law and no Standard of Conduct Determination (as defined in **Section 8(b)**) shall be required.

(b) Standard of Conduct. To the extent that the provisions of **Section 8(a)** are inapplicable to a Claim related to an Indemnifiable Event that shall have been finally disposed of, any determination of whether Indemnitee has satisfied any applicable standard of conduct under Delaware law that is a legally required condition to indemnification of Indemnitee hereunder against Losses relating to such Claim and any determination that Expense Advances must be repaid to the Company (a "**Standard of Conduct Determination**") shall be made as follows:

(i) if no Change in Control has occurred, (A) by a majority vote of the Disinterested Directors, even if less than a quorum of the Board, (B) by a committee of Disinterested Directors designated by a majority vote of the Disinterested Directors, even though less than a quorum or (C) if there are no such Disinterested Directors, by Independent Counsel in a written opinion addressed to the Board, a copy of which shall be delivered to Indemnitee; and

(ii) if a Change in Control shall have occurred, (A) if the Indemnitee so requests in writing, by a majority vote of the Disinterested Directors, even if less than a quorum of the Board or (B) otherwise, by Independent Counsel in a written opinion addressed to the Board, a copy of which shall be delivered to Indemnitee.

The Company shall indemnify and hold harmless Indemnitee against and, if requested by Indemnitee, shall reimburse Indemnitee for, or advance to Indemnitee, within 30 days of such request, any and all Expenses incurred by Indemnitee in cooperating with the person or persons making such Standard of Conduct Determination.

(c) Making the Standard of Conduct Determination. The Company shall use its reasonable best efforts to cause any Standard of Conduct Determination required under **Section 8(b)** to be made as promptly as practicable. If the person or persons designated to make the Standard of Conduct Determination under **Section 8(b)** shall not have made a determination within 30 days after the later of (A) receipt by the Company of a written request from Indemnitee for indemnification pursuant to **Section 8** (the date of such receipt being the "**Notification Date**") and (B) the selection of an Independent Counsel, if such determination is to be made by Independent Counsel, then Indemnitee shall be deemed to have satisfied the applicable standard

of conduct; provided that such 30-day period may be extended for a reasonable time, not to exceed an additional 30 days, if the person or persons making such determination in good faith requires such additional time to obtain or evaluate information relating thereto. Notwithstanding anything in this Agreement to the contrary, no determination as to entitlement of Indemnitee to indemnification under this Agreement shall be required to be made prior to the final disposition of any Claim.

(d) Payment of Indemnification. If, in regard to any Losses:

(i) Indemnitee shall be entitled to indemnification pursuant to **Section 8(a)**;

(ii) no Standard of Conduct Determination is legally required as a condition to indemnification of Indemnitee hereunder; or

(iii) Indemnitee has been determined or deemed pursuant to **Section 8(b)** or **Section 8(c)** to have satisfied the Standard of Conduct Determination,

then the Company shall pay to Indemnitee, within 10 days after the later of (A) the Notification Date or (B) the earliest date on which the applicable criterion specified in clause (i), (ii) or (iii) is satisfied, an amount equal to such Losses.

(e) Selection of Independent Counsel for Standard of Conduct Determination. If a Standard of Conduct Determination is to be made by Independent Counsel pursuant to **Section 8(b)(i)** the Independent Counsel shall be selected by the Board of Directors, and the Company shall give written notice to Indemnitee advising him or her of the identity of the Independent Counsel so selected. If a Standard of Conduct Determination is to be made by Independent Counsel pursuant to **Section 8(b)(ii)**, the Independent Counsel shall be selected by Indemnitee, and Indemnitee shall give written notice to the Company advising it of the identity of the Independent Counsel so selected. In either case, Indemnitee or the Company, as applicable, may, within five days after receiving written notice of selection from the other, deliver to the other a written objection to such selection; provided, however, that such objection may be asserted only on the ground that the Independent Counsel so selected does not satisfy the criteria set forth in the definition of "Independent Counsel" in **Section 1(j)**, and the objection shall set forth with particularity the factual basis of such assertion. Absent a proper and timely objection, the person or firm so selected shall act as Independent Counsel. If such written objection is properly and timely made and substantiated, (i) the Independent Counsel so selected may not serve as Independent Counsel unless and until such objection is withdrawn or a court has determined that such objection is without merit; and (ii) the non-objecting party may, at its option, select an alternative Independent Counsel and give written notice to the other party advising such other party of the identity of the alternative Independent Counsel so selected, in which case the provisions of the two immediately preceding sentences, the introductory clause of this sentence and numbered clause (i) of this sentence shall apply to such subsequent selection and notice. If applicable, the provisions of clause (ii) of the immediately preceding sentence shall apply to successive alternative selections. If no Independent Counsel that is permitted under the foregoing

provisions of this **Section 8(e)** to make the Standard of Conduct Determination shall have been selected within 20 days after the Company gives its initial notice pursuant to the first sentence of this **Section 8(e)** or Indemnitee gives its initial notice pursuant to the second sentence of this **Section 8(e)**, as the case may be, either the Company or Indemnitee may petition the Court of Chancery of the State of Delaware ("**Delaware Court**") to resolve any objection which shall have been made by the Company or Indemnitee to the other's selection of Independent Counsel and/or to appoint as Independent Counsel a person to be selected by the Court or such other person as the Court shall designate, and the person or firm with respect to whom all objections are so resolved or the person or firm so appointed will act as Independent Counsel. In all events, the Company shall pay all of the reasonable fees and expenses of the Independent Counsel incurred in connection with the Independent Counsel's determination pursuant to **Section 8(b)**.

(f) Presumptions and Defenses.

(i) Indemnitee's Entitlement to Indemnification. In making any Standard of Conduct Determination, the person or persons making such determination shall presume that Indemnitee has satisfied the applicable standard of conduct and is entitled to indemnification, and the Company shall have the burden of proof to overcome that presumption and establish that Indemnitee is not so entitled. Any Standard of Conduct Determination that is adverse to Indemnitee may be challenged by the Indemnitee in the Delaware Court. No determination by the Company (including by its directors or any Independent Counsel) that Indemnitee has not satisfied any applicable standard of conduct may be used as a defense to any legal proceedings brought by Indemnitee to secure indemnification or reimbursement or advance payment of Expenses by the Company hereunder or create a presumption that Indemnitee has not met any applicable standard of conduct.

(ii) Reliance as a Safe Harbor. For purposes of this Agreement, and without creating any presumption as to a lack of good faith if the following circumstances do not exist, Indemnitee shall be deemed to have acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the Company if Indemnitee's actions or omissions to act are taken in good faith reliance upon the records of the Company, including its financial statements, or upon information, opinions, reports or statements furnished to Indemnitee by the officers or employees of the Company or any of its subsidiaries in the course of their duties, or by committees of the Board or by any other Person (including legal counsel, accountants and financial advisors) as to matters Indemnitee reasonably believes are within such other Person's professional or expert competence and who has been selected with reasonable care by or on behalf of the Company. In addition, the knowledge and/or actions, or failures to act, of any director, officer, agent or employee of the Company shall not be imputed to Indemnitee for purposes of determining the right to indemnity hereunder.

(iii) No Other Presumptions. For purposes of this Agreement, the termination of any Claim by judgment, order, settlement (whether with or without court approval) or conviction, or upon a plea of nolo contendere or its equivalent, will not create a presumption that Indemnitee did not meet any applicable standard of conduct or have any particular belief, or that indemnification hereunder is otherwise not permitted.

(iv) Defense to Indemnification and Burden of Proof. It shall be a defense to any action brought by Indemnitee against the Company to enforce this Agreement (other than an action brought to enforce a claim for Losses incurred in defending against a Claim related to an Indemnifiable Event in advance of its final disposition) that it is not permissible under applicable law for the Company to indemnify Indemnitee for the amount claimed. In connection with any such action or any related Standard of Conduct Determination, the burden of proving such a defense or that the Indemnitee did not satisfy the applicable standard of conduct shall be on the Company.

9. Exclusions from Indemnification. Notwithstanding anything in this Agreement to the contrary, the Company shall not be obligated to:

(a) indemnify or advance funds to Indemnitee for Expenses or Losses with respect to proceedings initiated by Indemnitee, including any proceedings against the Company or its directors, officers, employees or other indemnitees and not by way of defense, except:

(i) proceedings referenced in **Section 4** above (unless a court of competent jurisdiction determines that each of the material assertions made by Indemnitee in such proceeding was not made in good faith or was frivolous); or

(ii) where the Company has joined in or the Board has consented to the initiation of such proceedings.

(b) indemnify Indemnitee if a final decision by a court of competent jurisdiction determines that such indemnification is prohibited by applicable law.

(c) indemnify Indemnitee for the disgorgement of profits arising from the purchase or sale by Indemnitee of securities of the Company in violation of Section 16(b) of the Exchange Act, or any similar successor statute.

(d) indemnify or advance funds to Indemnitee for Indemnitee's reimbursement to the Company of any bonus or other incentive-based or equity-based compensation previously received by Indemnitee or payment of any profits realized by Indemnitee from the sale of securities of the Company, as required in each case under the Exchange Act (including any such reimbursements under Section 304 of the Sarbanes-Oxley Act of 2002 in connection with an accounting restatement of the Company or the payment to the Company of profits arising from the purchase or sale by Indemnitee of securities in violation of Section 306 of the Sarbanes-Oxley Act).

10. Settlement of Claims. The Company shall not be liable to Indemnitee under this Agreement for any amounts paid in settlement of any threatened or pending Claim related to an Indemnifiable Event effected without the Company's prior written consent, which shall not be

unreasonably withheld; provided, however, that if a Change in Control has occurred, the Company shall be liable for indemnification of the Indemnitee for amounts paid in settlement if an Independent Counsel has approved the settlement. The Company shall not settle any Claim related to an Indemnifiable Event in any manner that would impose any Losses on the Indemnitee without the Indemnitee's prior written consent.

11. Duration. All agreements and obligations of the Company contained herein shall continue during the period that Indemnitee is a director designee, director or officer of the Company (or is serving at the request of the Company as a director, officer, employee, member, trustee or agent of another Enterprise) and shall continue thereafter (i) so long as Indemnitee may be subject to any possible Claim relating to an Indemnifiable Event (including any rights of appeal thereto) and (ii) throughout the pendency of any proceeding (including any rights of appeal thereto) commenced by Indemnitee to enforce or interpret his or her rights under this Agreement, even if, in either case, he or she may have ceased to serve in such capacity at the time of any such Claim or proceeding.

12. Non-Exclusivity. The rights of Indemnitee hereunder will be in addition to any other rights Indemnitee may have under the Constituent Documents, the DGCL, any other contract or otherwise (collectively, "**Other Indemnity Provisions**"); provided, however, that (a) to the extent that Indemnitee otherwise would have any greater right to indemnification under any Other Indemnity Provision, Indemnitee will be deemed to have such greater right hereunder and (b) to the extent that any change is made to any Other Indemnity Provision which permits any greater right to indemnification than that provided under this Agreement as of the date hereof, Indemnitee will be deemed to have such greater right hereunder. The Company will not adopt any amendment to any of the Constituent Documents the effect of which would be to deny, diminish or encumber Indemnitee's right to indemnification under this Agreement.

13. Liability Insurance. For the duration of Indemnitee's service as a director designee, director and/or officer of the Company, and thereafter for so long as Indemnitee shall be subject to any pending Claim relating to an Indemnifiable Event, the Company shall use commercially reasonable efforts (taking into account the scope and amount of coverage available relative to the cost thereof) to continue to maintain in effect policies of directors' and officers' liability insurance providing coverage that is at least substantially comparable in scope and amount to that to be provided by the Company immediately following the initial public offering of its common stock on a national securities exchange. In all policies of directors' and officers' liability insurance maintained by the Company, Indemnitee shall be named as an insured in such a manner as to provide Indemnitee the same rights and benefits as are provided to the most favorably insured of the Company's directors and director designees, if Indemnitee is a director or director designee, or of the Company's officers, if Indemnitee is an officer (and not a director or director designee) by such policy. Upon request, the Company will provide to Indemnitee copies of all directors' and officers' liability insurance applications, binders, policies, declarations, endorsements and other related materials.

14. No Duplication of Payments. The Company shall not be liable under this Agreement to make any payment to Indemnitee in respect of any Losses to the extent Indemnitee has otherwise received payment under any insurance policy, the Constituent Documents, Other Indemnity Provisions or otherwise of the amounts otherwise indemnifiable by the Company hereunder. The Company hereby acknowledges that Indemnitee may have rights to indemnification for Losses provided by [SPONSOR OR OTHER ENTITY] (**"Other Indemnitor(s)"**). The Company agrees with Indemnitee that the Company is the indemnitor of first resort of Indemnitee with respect to matters for which indemnification is provided under this Agreement and that the Company will be obligated to make all payments due to or for the benefit of Indemnitee under this Agreement without regard to any rights that Indemnitee may have against the Other Indemnitor(s). The Company further agrees that no payment of Expenses or Losses by the Other Indemnitor to or for the benefit of Indemnitee shall affect the obligations of the Company hereunder, and that the Company shall be obligated to repay the Other Indemnitor for all amounts so paid or reimbursed to the extent that the Company has an obligation to indemnify Indemnitee for such Expenses or Losses hereunder.

15. Subrogation. In the event of payment to Indemnitee under this Agreement, the Company shall be subrogated to the extent of such payment to all of the rights of recovery of Indemnitee. Indemnitee shall execute all papers required and shall do everything that may be necessary to secure such rights, including the execution of such documents necessary to enable the Company effectively to bring suit to enforce such rights.

16. Indemnification and Contribution.

(a) Subject to **Section 8** and **Section 9** of this Agreement, the Company shall indemnify Indemnitee, to the fullest extent permitted by the laws of the State of Delaware in effect on the date hereof, or as such laws may from time to time hereafter be amended to increase the scope of such permitted indemnification, against any and all Losses if Indemnitee was or is or becomes a party to or participant in, or is threatened to be made a party to or participant in, any Claim by reason of or arising in part out of an Indemnifiable Event, including, without limitation, Claims brought by or in the right of the Company, Claims brought by third parties, and Claims in which the Indemnitee is solely a witness.

(b) If the indemnification provided for in **Section 16(a)** for any reason is held by a court of competent jurisdiction to be unavailable to Indemnitee in respect of any Losses referred to therein, then the Company, in lieu of indemnifying Indemnitee thereunder, shall contribute to the amount paid or payable by Indemnitee as a result of such Losses (i) in such proportion as is appropriate to reflect the relative benefits received by the Company and Indemnitee, or (ii) if the allocation provided by clause (i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company and Indemnitee in connection with the Indemnifiable Event which resulted in such Losses, as well as any other relevant equitable considerations. In connection with any registration of the Company's securities, the relative benefits received by the Company and Indemnitee shall be deemed to be in the same respective proportions that the net proceeds from

the offering (before deducting expenses) received by the Company and Indemnitee, in each case as set forth in the table on the cover page of the applicable prospectus, bear to the aggregate public offering price of the securities so offered. The relative fault of the Company and the Indemnitee shall be determined by reference to, among other things, whether any untrue or alleged untrue statement of a material fact or any omission or alleged omission to state a material fact relates to information supplied by the Company or Indemnitee and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission. The Company and Indemnitee agree that it would not be just and equitable if contribution pursuant to this **Section 16(b)** were determined by pro rata or per capita allocation or by any other method of allocation which does not take account of the equitable considerations referred to in the immediately preceding sentence. In connection with the registration of the Company's securities, in no event shall Indemnitee be required to contribute any amount under this **Section 16(b)** in excess of the lesser of (i) that proportion of the total of such Losses indemnified against equal to the proportion of the total securities sold under such registration statement which is being sold by Indemnitee, if any or (ii) the proceeds received by Indemnitee from its sale of securities under such registration statement, if any. No person found guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act of 1933) shall be entitled to contribution from any person who was not found guilty of such fraudulent misrepresentation.

17. Amendments. No supplement, modification or amendment of this Agreement shall be binding unless executed in writing by both of the parties hereto. No waiver of any of the provisions of this Agreement shall be binding unless in the form of a writing manually signed by the party against whom enforcement of the waiver is sought, and no such waiver shall operate as a waiver of any other provisions hereof (whether or not similar), nor shall such waiver constitute a continuing waiver. Except as specifically provided herein, no failure to exercise or any delay in exercising any right or remedy hereunder shall constitute a waiver thereof.

18. Binding Effect. This Agreement shall be binding upon and inure to the benefit of and be enforceable by the parties hereto and their respective successors (including any direct or indirect successor by purchase, merger, consolidation or otherwise to all or substantially all of the business and/or assets of the Company), assigns, spouses, heirs and personal and legal representatives. The Company shall require and cause any successor (whether direct or indirect by purchase, merger, consolidation or otherwise) to all, substantially all or a substantial part of the business and/or assets of the Company, by written agreement in form and substances satisfactory to Indemnitee, expressly to assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform if no such succession had taken place.

19. Severability. The provisions of this Agreement shall be severable in the event that any of the provisions hereof (including any portion thereof) are held by a court of competent jurisdiction to be invalid, illegal, void or otherwise unenforceable, and the remaining provisions shall remain enforceable to the fullest extent permitted by law. Upon such determination that any term or other

provision is invalid, illegal or unenforceable, the parties hereto shall negotiate in good faith to modify this Agreement so as to effect the original intent of the parties as closely as possible in a mutually acceptable manner in order that the transactions contemplated hereby be consummated as originally contemplated to the greatest extent possible.

20. Notices. All notices, requests, demands and other communications hereunder shall be in writing and shall be deemed to have been duly given if delivered by hand, against receipt, or mailed, by postage prepaid, certified or registered mail:

(a) if to Indemnitee, to the address set forth on the signature page hereto.

(b) if to the Company, to:

electroCore, Inc.
Attn: Chief Executive Officer
150 Allen Road, Suite 201
Basking Ridge, NJ 07920

With a copy to Attn: Chief Financial Officer at the same address.

Notice of change of address shall be effective only when given in accordance with this Section. All notices complying with this Section shall be deemed to have been received on the date of hand delivery or on the third business day after mailing.

21. Governing Law and Forum. This Agreement shall be governed by and construed and enforced in accordance with the laws of the State of Delaware applicable to contracts made and to be performed in such state without giving effect to its principles of conflicts of laws. The Company and Indemnitee hereby irrevocably and unconditionally: (a) agree that any action or proceeding arising out of or in connection with this Agreement shall be brought only in the Delaware Court and not in any other state or federal court in the United States, (b) consent to submit to the exclusive jurisdiction of the Delaware Court for purposes of any action or proceeding arising out of or in connection with this Agreement and (c) waive, and agree not to plead or make, any claim that the Delaware Court lacks venue or that any such action or proceeding brought in the Delaware Court has been brought in an improper or inconvenient forum.

22. Integration and Entire Agreement. This Agreement sets forth the entire understanding between the parties hereto and supersedes and merges all previous written and oral negotiations, commitments, understandings and agreements relating to the subject matter hereof between the parties hereto, including any existing director or officer indemnification agreement; provided, however, that this Agreement is a supplement to and in furtherance of the Constituent Documents, any directors and officers insurance maintained by the Company and applicable law, and shall not be deemed a substitute therefor, nor to diminish or abrogate any rights of Indemnitee thereunder.

23. Headings. The headings of the sections and paragraphs of this Agreement are inserted for convenience only and shall not be deemed to constitute part of this Agreement or to affect the construction or interpretation thereof.

24. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall for all purposes be deemed to be an original, but all of which together shall constitute one and the same Agreement.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

ELECTROCORE, INC.

By: _____
Name:
Title:

INDEMNITEE

_____
Name:
Address:

Exhibit 10.15

electroCore, Inc. Executive Severance Policy

ARTICLE I.
PURPOSE

The electroCore, Inc. Executive Severance Policy ("the Policy") is established to provide eligible executives of electoCore, Inc. or any of its wholly-owned subsidiaries (collectively, the "Company") who incur an Involuntary Termination of Employment (as defined below) with severance pay and other benefits in accordance with and subject to the terms and conditions set forth in this Policy.

This Policy is intended to be an unfunded employee benefit plan maintained for a select group of management or highly compensated employees for purposes of the Employee Retirement Income Security Act of 1974, as amended. All previous existing pay plans, programs, agreements and practices that provide for the payment of severance benefits, whether formal or informal (each a "Prior Severance Plan"), are hereby revoked and terminated for any Participant (as defined below). This document applies to Participants who incur an Involuntary Termination of Employment on and after of the Effective Date of this Policy. The payment of severance benefits, if any, payable to any executive who incurred a Termination of Employment prior to the Effective Date of this Policy shall be determined in accordance with the terms of the Prior Severance Plan, applicable to such individual at the time of his Termination of Employment.

ARTICLE II.
DEFINITIONS

When used in this Policy, the following words shall have the following meaning unless the context clearly indicates otherwise.

Section 2.01 "Accrued Obligations" means the sum of (i) the Participant's unpaid base salary earned through the date of his Termination of Employment, (ii) any reimbursable business expenses incurred prior to the Participant's Termination of Employment, (iii) any earned but unpaid vacation pay as of the Participant's Termination of Employment and (iv) any vested benefits to which the Participant is entitled under any benefit plan, program or arrangement maintained by the Company.

Section 2.02 "Administrator" shall be the Committee.

Section 2.03 "Base Annual Compensation" means (a) with respect to the CEO and CSSO, the sum of the Participant's gross annual base salary and target annual incentive bonus, and (b) with respect to all other Participants, such Participant's gross annual base salary, in each case as in effect immediately prior to the Participant's Termination of Employment or as in effect immediately prior to any reduction in the Participant's Base Annual Compensation that results in the Participant's Termination of Employment for Good Reason.

Section 2.04 "Board" means the board of directors of electroCore, Inc.

Section 2.05 "Cause" means any of the following:

(a) the Participant's wilful failure to fulfill, in any material respect, his duties and responsibilities to the Company (other than by reason of death, illness or disability);

(b) The Participant's willful misconduct, gross negligence or willful acts of personal dishonesty in the performance of his duties to the Company that directly, materially and demonstrably impairs or damages the property, goodwill, reputation, business or finances of the Company;

(c) The conviction of, or plea of nolo contendere by, the Participant to, a felony or a crime involving moral turpitude that materially and demonstrably impairs or damages the property, goodwill, reputation, business or finances of the Company;

(d) The Participant's commission of fraud or embezzelment against the Company;

(e) the Participant's willful or intentional violation of any lawful policy of the Company that directly, materially and demonstrably impairs or damages the property, goodwill, reputation, business or finances of the Company; or

(f) the Participant's breach of the terms of the Restrictive Covenant Agreement.

Notwithstanding the foregoing, no failure or violation described in (a), (b) or (e) above shall constitute Cause unless (i) the Administrator provides the Participant with a written notice describing the Participant's acts or omissions that constitute a failure or violation described in (a), (b) or (e) above, (ii) the Participant fails to cure such failure or violation within 10 business days after he receives such written notice and (iii) following the expiration of the cure period, the Company terminates the Participant's employment due to such failure or violation; provided, however, that if the Administrator determines that the failure or violation described in (a), (b) or (e) is not capable of being cured, the Company may terminate the Participant's employment for Cause at any time after the Administrator provides the written notice described in (i) above.

Section 2.06 "CEO" means the Chief Executive Officer of electroCore, Inc.

Section 2.07 "Change in Control" means either:

(a) the occurrence, in a single transaction or in a series of related transactions, of any one or more of the following events:

(i) any person (or group of persons acting together) other than [Core Ventures II, LLC and its managing members] becomes the owner, directly or indirectly, of securities of the Company representing more than 50% of the combined voting power of the Company's then outstanding voting securities other than by virtue of a merger, consolidation or similar transaction; provided, however, that a Change in Control under this clause (i) shall not occur solely as a result of any redemption, repurchase or other acquisition of voting securities by the Company reducing the number of shares outstanding;

(ii) any person (or group of persons acting together) other than [Core Ventures II, LLC and its managing members] acquires (or has acquired within any 12-month period ending on the date of the most recent acquisition by such person or group) ownership, directly or indirectly, of securities of the Company representing more than 30% of the combined voting power of the Company's then outstanding voting securities other than by virtue of a merger, consolidation or similar transaction;

(iii) the consummation of a merger, consolidation or similar transaction involving (directly or indirectly) the Company if, immediately after the consummation of such merger, consolidation or similar transaction, the stockholders of the Company immediately prior thereto do not own, directly or indirectly, either (A) outstanding voting securities representing more than 50% of the combined outstanding voting power of the surviving entity in such merger, consolidation or similar transaction or (B) more than 50% of the combined outstanding voting power of any direct or indirect parent of the surviving entity in such merger, consolidation or similar transaction; or

(iv) the acquisition by a person (or a group of persons acting together) other than Core Ventures II, LLC and its managing members during the 12-month period ending on the date of the most recent acquisition by such person or group of assets from the Company that have a total gross fair market value equal to or exceeding 40% of the total gross fair market value of all of the assets of the Company immediately before such acquisition or acquisitions.

Notwithstanding the foregoing, no transaction or series of related transactions shall constitute a Change in Control of the Company unless such transaction or series of related transactions qualify as a change in ownership of the Company, a change in effective control of the Company or a change in ownership of a substantial portion of the Company's assets as each of these terms are defined in Treasury Regulation Section 1.409A-3(i)(5).

Section 2.08 "COBRA" means the provisions regarding healthcare continuation coverage set forth in Section 601 et seq. of ERISA and Section 4980B of the Code.

Section 2.09 "COBRA Premium" means the monthly cost of providing healthcare continuation coverage for a qualified beneficiary under COBRA, as adjusted from time to time.

Section 2.10 "Code" means the Internal Revenue Code of 1986, as amended.

Section 2.11 "Committee" means the compensation committee of the Board.

Section 2.12 "Company" means electroCore, Inc., its wholly-owned subsidiaries and its successors and assigns.

Section 2.13 "CSSO" means the Chief Science & Strategy Officer of electroCore, Inc.

Section 2.14 "Eligible Participant" means a Participant who satisfies the eligibility conditions set forth in Section 3.01 for receiving Severance Benefits under this Policy.

Section 2.15 "ERISA" means the Employee Retirement Income Security Act of 1974, as amended.

Section 2.16 "Excess Parachute Tax" means the taxes, if any, imposed under Section 4999 of the Code on a Participant with respect to all or a portion of his Total Parachute Payments as a result of a Change in ownership or effective control of the Company (within the meaning of Section 280G of the Code).

Section 2.17 "Good Reason" means

(a) Any material reduction in the Participant's Base Annual Compensation prior to a Change in Control; provided, however, that a reduction in the Participant's Annual Base Compensation under this paragraph (a) shall not constitute Good Reason if the Company reduces the Annual Base Compensation of all Participants on a substantially equivalent basis;

(b) any material reduction in the Participant's Base Annual Compensation during the period commencing on or after a Change in Control and ending on the second anniversary of a Change in Control;

(c) any material diminution in the Participant's authority, duties, offices, title or responsibilities; or

(d) a transfer of Participant's principal place of employment to a location that is more than [30] miles from the Participant's then current principal place of employment.

A Participant will not have Good Reason to terminate his employment and receive Severance Benefits under this Policy unless the Participant provides the Administrator with written notice of the circumstances he believes constitutes Good Reason within 30 days after the occurrence of such circumstances, or, if later, within 30 days after the Participant in the exercise of ordinary care first becomes aware of any such circumstances. If the Participant does not provide such written notice within this time period, he may not assert those circumstances as a basis for any Termination of Employment for Good Reason. If Company does not cure any claimed event of Good Reason within 30 days after receipt of such written notice from the Participant, the Participant may terminate his employment for Good Reason within 60 days after the expiration of such cure period. If the Participant terminates his employment prior to the expiration of the 30-day cure period or more than 60 days after the expiration of such cure period, the Participant will not be treated as having terminated his employment for Good Reason.

Section 2.18 "Involuntary Termination of Employment" means a Participant's Termination of Employment (i) by the Company for any reason other than for Cause or (ii) by the Participant for Good Reason. Notwithstanding the foregoing, however, an Involuntary Termination of Employment shall not include a termination of a Participant's employment due to:

(a) the Participant's death, total and permanent disability or his voluntary resignation or retirement (other than for Good Reason); or

(b) the sale or other disposition of any subsidiary, division or business unit of the Company or the outsourcing of any operations of the Company if the Participant receives a written offer of comparable employment from the purchaser of such subsidiary, division or business unit or from the entity that acquires the outsourced operations or from any direct or indirect parent, subsidiary or affiliate of such purchaser or entity (a "Successor Employer") whether or not the Participant accepts such offer of comparable employment.

An offer of employment from a Successor Employer will not be considered to be an offer of "comparable employment" for purposes of (b) unless all of the following conditions are satisfied: (i) the Participant is offered Base Annual Compensation in an amount equal to or exceeding 100% of the Participant's Base Annual Compensation immediately prior to the consummation of such transaction, (ii) the Participant is offered employment by the Successor Employer at a principal place of employment that is located not more than [30] miles from the Participant's principal place of employment with the Company immediately prior to the consummation of such transaction and (iii) the Successor Employer offers the Participant employment in a position that is not expected to result in a material diminution in the authority, duties or responsibilities the Participant held immediately prior to his Termination of Employment, regardless of his title or position with the Successor Employer.

Section 2.19 "Participant" means the CEO, the CSSO, and each other member of the Company's senior management team who is designated (by name or by job title or description) as a Participant hereunder by the Committee.

Section 2.20 "Release" means a general release of a Participant's claims against the Company, its subsidiaries, affiliates, predecessors, and successor, and their respective agents, officers, directors, employees and stockholders in a form provided by the Adminstrator in good faith.

Section 2.21 "Restrictive Covenants Agreement" means the Employee Confidentiality and Assignment Agreement or similar agreement imposing employment covenants on the Participant in favor of the Company.

Section 2.22 "Severance Benefits" means the Severance Pay and other benefits payable to an Eligible Participant pursuant to Article IV of this Policy.

Section 2.23 "Severance Pay" means the cash payments made to an Eligible Participant pursuant to Section 4.01 of this Policy.

Section 2.24 "Severance Period" means the period commencing on the first day following an Eligible Participant's Involuntary Termination of Employment and continuing for a period equal to:

(a) If the Eligible Participant's Involuntary Termination of Employment occurs prior to a Change in Control or on or after the second anniversary of a Change in Control, the number of months set forth in the applicable table below based on the Eligible Participant's employment position at the time of his Involuntary Termination of Employment or his employment position immediately prior to any change in his employment position that results in the Participant's Termination of Employment for Good Reason:

Employment Position	Severance Period
CEO or CSSO:	12 months
All Other Participants:	6 months

(b) If an Eligible Participant's Involuntary Termination of Employment occurs on or after a Change in Control and prior to the second anniversary of such Change in Control, the number of months set forth in the applicable table below based on the Eligible Participant's employment position at the time of his Involuntary Termination of Employment or his position immediately prior to any change in his employment position that results in his Termination of Employment for Good Reason:

Employment Position	Severance Period
CEO or CSSO:	18 months
All Other Participants:	12 months

Section 2.25 "Termination of Employment" or words to similar effect means the Participant's separation from service (as defined in regulations under Section 409A of the Code) with the Company (and each entity that together with the Company is required to be treated as a single service recipient for purposes of determining whether a separation from service has occurred for purposes of Section 409A of the Code).

Section 2.26 "Total Parachute Payments" shall mean any payment or benefit in the nature of compensation (within the meaning of Section 280G(b)(2) of the Code) paid or provided to or for the benefit of a Participant (whether paid or provided pursuant to this Policy or otherwise) which is conditioned on a Change in ownership or effective control of the Company (within the meaning of Section 280G of the Code) and would subject the Eligible Participant in whole or in part to an Excess Parachute Tax.

ARTICLE III.
ELIGIBILITY FOR SEVERANCE BENEFITS

Section 3.01 Eligibility for Severance Benefits. A Participant will become an Eligible Participant who is entitled to receive Severance Benefits under this Policy if such Participant

(a) incurs an Involuntary Termination of Employment,

(b) timely executes a Release within 60 days following such Involuntary Termination of Employment (or within such shorter time frame as may be specified in the Release provided by the Administrator), and

(c) does not revoke such Release within the applicable revocation period provided under applicable law for revocation of a release of employment-based claims (including, without limitation, the release of claims under the Age Discrimination in Employment Act).

A Participant who does not return a signed copy of the Release to the Company within the time frame specified above or who revokes a signed Release within the applicable revocation period, will not be eligible to receive any Severance Benefits under this Policy. The Company will provide a Participant who has an Involuntary Termination of Employment with an executable form of Release no later than five business days after the Participant's Involuntary Termination of Employment.

ARTICLE IV.
SEVERANCE BENEFITS

An Eligible Participant who satisfies the eligibility requirements set forth in Section 3.01 will receive Severance Pay and other Severance Benefits as provided in this Article IV, in addition to the payment of any Accrued Obligations to which the Eligible Participant is entitled.

Section 4.01 Severance Pay.

(a) Amount of Severance Pay.

(i) Normal Severance. Except as provided in clause (ii) below, an Eligible Participant will receive Severance Pay in an amount equal to his Base Annual Compensation times the applicable severance multiple specified in the table below based on the Eligible Participant's employment position at the time of his Involuntary Termination of Employment or his employment position immediately prior to any change in his employment position that results in his Termination of Employment for Good Reason:

Employment Position	Severance Multiple
CEO or CSSO:	1.0
All Other Participants:	0.5

(ii) Change in Control Severance. If an Eligible Participant's Involuntary Termination of Employment occurs on or after a Change in Control and prior to the second anniversary of such Change in Control, he will receive Severance Pay in an amount equal to his Base Annual Compensation times the applicable severance multiple specified in the table below based on the Eligible Participant's employment position at the time of his Involuntary Termination of Employment or his employment position immediately prior to any change in his employment position that results in his Termination of Employment for Good Reason:

Employment Position	Severance Multiple
CEO or CSSO:	1.5
All Other Participants:	1.0

(b) Timing of Severance Pay.

(i) Normal Severance. Except as provided in clause (ii) below (and subject to Section 4.04), an Eligible Participant will receive his Severance Pay in equal installments over the Participant's Severance Period in accordance with the Company's regular payroll schedule; provided, however, that no installment will be paid to a Participant unless and until the Participant has satisfied all of the eligibility conditions in Section 3.01.

(ii) Change in Control Severance. If an Eligible Participant's Involuntary Termination of Employment occurs on or after a Change in Control but prior to the second anniversary of such Change in Control, the Eligible Participant's Severance Pay will be paid in a single lump sum as soon as practicable after the Participant has satisfied all of the eligibility conditions in Section 3.01.

Section 4.02 Medical, Dental and Vision Coverage. If an Eligible Participant is entitled to file, and does timely file, an election to continue any health benefits for himself, his spouse and his eligible dependents, if any, under a medical, dental and/or vision benefit program maintained by the Company in accordance with the provisions of COBRA, the Company shall promptly reiburse the Eligible Participant for the monthly COBRA Premiums paid by the Eligible Participant for such COBRA coverage until the earlier of (i) the expiration of the Eligible Participant's continuation coverage under COBRA or (ii) the end of the Participant's Severance Period. Notwithstanding the foregoing, an Eligible Participant shall not receive any reimbursement of COBRA Premiums unless and until all of the eligibility conditions in Section 3.01 have been satisfied. The Eligible Participant is responsible for the payment of all applicable COBRA Premiums.

Section 4.03 Acceleration of Vesting of Equity. If a Participant's Involuntary Termination of Employment occurs on or after a Change in Control and prior to the second anniversary of a Change in Control, all outstanding forms of equity-based compensation granted to such Participant that remains outstanding immediately prior to the Participant's Involuntary Termination of Employment shall vest and become exercisable upon satisfaction of all of the eligibility conditions in Section 3.01, and the period of time during which the Eligible Participant may exercise outstanding stock options or outstanding stock appreciation rights shall be extended until the earlier of (a) 150 days following the Participant's Termination of Employment (or, if later, the period of time set forth in the applicable award agreement for exercising such stock options or stock appreciation rights) or (b) the original expiration date for such stock options. Such equity awards shall otherwise settle in accordance with their terms and conditions.

Section 4.04 Compliance with Section 409A of the Code. The Severance Benefits provided under this Policy are, to the fullest extent possible, intended to be exempt from the requirements of Section 409A of the Code and to the extent that any Severance Benefits provided hereunder are not exempt from Section 409A of the Code, they is intended to comply with the requirements of Section 409A of the Code and the regulations thereunder, and this Policy shall be construed accordingly. Notwithstanding any provision in this Policy to the contrary, if at the time of an Eligible Participant's Termination of Employment, the Administrator determines that the Eligible Participant is a "specified employee" within the meaning of Section 409A(a)(2)(B)(i) of the Code and applicable regulations thereunder, then, to the extent that such Severance Benefits constitute deferred compensation within the meaning of Section 409A of the Code and applicable regulations issued thereunder, payment or provision of such Severance Benefits shall be suspended and shall not be paid or provided to the Eligible Participant until the date that occurs on the earlier of (i) the first day of the seventh month following the Eligible Participant's Termination of Employment or (ii) the Eligible Participant's death. The payments suspended pursuant to this Section 4.04 will be paid to the Eligible Participant as soon as practicable after the period of suspension ends. Notwithstanding any provision in this Policy to the contrary, if any Severance Benefits are to be paid or provided in installments, each such installment shall constitute a separate payment for purposes of Section 409A of the Code and the regulations thereunder.

Section 4.05 Excess Parachute Tax. Notwithstanding any other provisions of this Policy or any plan, arrangement or agreement maintained by the Company, if a Participant receives or is entitled to receive any Total Parachute Payments under the terms of this Policy or otherwise that would subject the Participant to an Excess Parachute Tax as a result of a change in ownership or effective control of the Company (within the meaning of Section 280G of the Code), the portion of the Total Parachute Payments payable to the Participant (whether under this Policy or otherwise) shall be reduced to the extent necessary to prevent the imposition of the Excess Parachute Tax but only if the amount determined under (a) below exceeds the amount determined under (b) below, where:

(a) is the net after-tax amount of the Total Parachute Payments remaining after (i) reducing the Total Parachute Payments to the extent necessary to prevent the imposition of the Excess Parachute Tax and (ii) deducting the net amount of Federal, state, and local income and payroll taxes payable by the Participant with respect such reduced Total Parachute Payments computed at the Participant's highest marginal tax rates; and

(b) is the net after-tax amount of the Total Parachute Payments (without any reduction to prevent imposition of the Excess Parachute Tax) but after deducting the net amount of Federal, state, and local income and payroll taxes payable by the Participant with respect to such Total Parachute Payments computed at the Participant's highest marginal tax rates and further reduced by the amount of the Excess Parachute Tax that would be imposed on the Participant with respect to such Total Parachute Payments.

Such reduction shall first be applied to the accelerated vesting of any equity-based compensation, starting with stock options and stock appreciation rights that have the highest exercise or strike price, followed by any equity-based compensation that does not constitute nonqualified deferred compensation within the meaning of Section 409A of the Code and next followed by any Severance Pay under this Policy that is not considered to be deferred compensation within the meaning of Section 409A of the Code and lastly to any Severance Pay that is considered to be deferred compensation within the meaning of Section 409A of the Code (starting with the installment payments that are payable latest in time).

Section 4.06 Death of an Eligible Participant. If an Eligible Participant dies after having satisfied all of the eligibility conditions set forth in Section 3.01 and before the end of the Severance Period, any remaining Severance Pay will continue to be paid to the beneficiary designated by the Participant to the Company, in writing. If a Participant has not designated a beneficiary (or if the beneficiary does not survive the Participant), the remaining Severance Pay, if any, will be paid to the Eligible Participant's estate.

Section 4.07 Violation of Post-Employment Obligations and Covenants. Notwithstanding any provision in this Policy to the contrary, if any Eligible Participant breaches the terms of Restricted Covenant Agreement with the Company, such Eligible Employee shall immediately forfeit any and all rights he may have to any unpaid Severance Benefits hereunder and such Eligible Participant shall return to the Company any Severance Benefits previously received by the Eligible Participant.

ARTICLE V.
POLICY ADMINISTRATION

This Policy shall be administered by the Administrator. The Administrator shall have the discretionary authority to determine eligibility for Severance Benefits under the Policy and to construe the terms of the Policy, including the making of factual determinations. Benefits under the Policy shall be paid or provided only if the Administrator determines that Participant is entitled to such benefits under the terms of this Policy. The decisions of the Administrator shall be final and conclusive with respect to all questions concerning administration of the Policy. The Administrator may delegate all or a portion of its duties under this Policy to the CEO; provided, however, that the Committee's express approval is required for the payment of any compensation or benefits as a result of any Participant's Termination of Employment that are not Accrued Obligations or otherwise authorized under this Policy and further provided that the Administrator shall not delegate any duties to the CEO in connection with his own Termination of Employment. The actions of the CEO with respect to his delegated duties shall be treated as if such actions were taken by the Administrator.

ARTICLE VI.
CLAIMS PROCEDURE; ARBITRATION

Section 6.01 Filing a Claim. No formal claim for benefits shall be required for Severance Benefits to be paid or provided under this Policy. The Administrator will inform any Participant who incurs an Involuntary Termination of Employment that such Participant will be eligible for Severance Benefits under this Policy if the Participant satisfies the conditions set forth in Section 3.01. However, any individual who believes he is eligible for Severance Benefits under this Policy that have not been provided (a "Claimant") may submit a written claim ("Claim") for Severance Benefits to the Administrator. A Claimant shall have no right to seek review of a denial of Severance Benefits, or to bring any action in any court to enforce a Claim, prior to filing a Claim and exhausting his administrative remedies under this Article VI. When a Claim has been filed properly, the Administrator shall evaluate it and shall notify the Claimant of the approval or the denial of the Claim within 90 days after the Administrator receives such Claim unless special circumstances require an extension of time for processing the Claim. If such an extension of time for processing is required, the Administrator shall furnish the Claimant with written notice of the extension prior to the termination of the initial 90-day period. The notice of extension will specify the special circumstances requiring an extension and the date by which a final decision will be reached. The extension may not exceed 180 days after the date on which the Claim was filed. The Administrator shall provide the Claimant with a written notice advising the Claimant as to whether the Claim is granted or denied, in whole or in part. If a Claim is denied, in whole or in part, the notice will contain (a) the specific reasons for the denial, (b) references to pertinent provisions of the Policy upon which the denial is based, (c) a description of any additional material or information, if any, that is necessary to perfect the Claim and an explanation of why such material or information is necessary, and (d) the Claimant's right to seek review of the denial.

Section 6.02 Review of Claim Denial. If a Claim is denied, in whole or in part, the Claimant may shall have the right to (a) request that the Committee review the denial, (b) review pertinent documents, and (c) submit issues and comments in writing, provided that the Claimant files a written request for review with the Committee within 60 days after the date on which the Claimant received written notification of the denial. Within 60 days after a request for review is received, the Committee shall review the Claim and advise the Claimant in writing of the

Committee's decision on review. If special circumstances require an extension of time for processing the review, the Committee shall provide the Claimant with written notice within the initial 60-day review period specifying the reasons for the extension and when such review shall be completed. The extension of the review period may not exceed 120 days after the date on which the request for review was filed. The Committee shall notify the Claimant of its decision on review in writing, which will include specific reasons for the decision and reference to the provisions of the Policy upon which the decision is based. A decision on review shall be final and binding on all persons for all purposes. A Claimant or other individual shall not be entitled to bring any legal action or arbitration unless such person has exhausted such person's rights under Section 6.01 and this Section 6.02 by timely submitting a Claim and requesting a review of a decision with respect to such Claim.

Section 6.03 Arbitration. If a Claimaint has exhausted his or her administrative remedies under Section 6.02 relating to any Claim under this Policy, then the Claimant may demand that any remaining disputed matters under this Policy (a "Dispute") be settled by final and binding arbitration by sending written notice of such election to the Administrator clearly marked "Arbitration Demand" and such Dispute shall be arbitrated in accordance with the terms and conditions of this Section 6.03. Notwithstanding the foregoing, either party may apply to a court of competent jurisdiction for a temporary restraining order, a preliminary injunction, or other equitable relief to preserve the status quo or prevent irreparable harm or to enforce the terms of a Participant's Restrictive Covenants Agreement.

The Dispute shall be resolved by a single arbitrator in an arbitration administered by the American Arbitration Association ("AAA") in accordance with its Employment Arbitration Rules in effect at the time of the arbitration hearing and judgment upon the award rendered by the arbitrator may be entered in any court having jurisdiction thereof. The decision of the arbitrator shall be final and binding on the parties, and specific performance giving effect to the decision of the arbitrator may be ordered by any court of competent jurisdiction. Nothing contained herein shall operate to prevent either party from asserting any counterclaims in any arbitration commenced in accordance with this Agreement.

The arbitration shall be filed with the AAA office located in the State of New Jersey. The decision of the arbitrator, which shall be in writing and state the findings, the facts and conclusions of law upon which the decision is based, shall be final and binding upon the parties, who shall forthwith comply after receipt thereof. Judgment upon the award rendered by the arbitrator may be entered by any competent court. Each party submits itself to the jurisdiction of any such court, but only for the entry and enforcement to judgment with respect to the decision of the arbitrator hereunder.

Except as otherwise provided by law, the parties shall bear their own costs in preparing for and participating in the resolution of any Dispute pursuant to this Section 6.03, and the costs of the arbitrator(s) shall be equally divided between the parties.

The provisions of this Section 6.03 shall be a complete defense to any suit, action or proceeding instituted in any federal, state or local court or before any administrative tribunal with respect to any Dispute arising in connection with this Agreement. Any party commencing a lawsuit in violation of this Section 6.03 shall pay the costs of the other party, including, without limitation, reasonable attorney's fees and defense costs.

ARTICLE VII.
AMENDMENT AND TERMINATION

The Board or the Committee reserves the right to amend this Policy from time to time or to terminate the Policy; provided, however, that no such amendment or termination shall reduce the amount of Severance Benefits payable to any Eligible Participant who had an Involuntary Termination of Employment on or before the date of such amendment is executed or this Policy is terminated. Moreover, this Policy may not be amended or terminated at any time on or after the date Change in Control occurs and prior to the second anniversary of such Change in Control if such amendment or termination will have a material adverse affect on any Participant's eligibility for Severance Pay or Severance Benefits or the amount of Severance Benefits provided under this Policy or under any plan, policy, program, arrangement or agreement that replaces this Policy. This Policy may not be amended, modified or terminated in a manner that would subject any Participant to taxation of his Severance Benefits under Section 409A(a)(1) of the Code.

ARTICLE VIII.
MISCELLANEOUS

Section 8.01 Accrued Obligations. Notwithstanding any provision in this Policy to the contrary, a Participant who has a Termination of Employment shall receive all of the Accrued Obligations to which such Participant is entitled in accordance with the Company's customary payroll practices and/or the terms of any applicable plan, program, policy or arrangement maintained by the Company without regard to whether the Participant is or may become entitled to any Severance Pay or Severance Benefits under this Policy and the payment of such Accrued Obligations shall not be conditioned upon the Participant's execution of a Release.

Section 8.02 Successors and Assigns. The obligations of the Company under this Policy shall be assumed by its successors and assigns.

Section 8.03 Employment Rights. The existence of this Policy shall not confer any legal or other rights upon any employee to continuation of employment. The Company and its subsidiaries reserve the right to terminate any employee with or without cause at any time, notwithstanding the provisions of this Policy.

Section 8.04 Controlling Law. The provisions of this Policy shall be governed, construed and administered in accordance with ERISA. To the extent that ERISA does not apply, the laws of the State of New Jersey shall be controlling, other than New Jersey law concerning conflicts of law.

Section 8.05 Interests Not Transferable. The interest of persons entitled to Severance Benefits under this Policy are not subject to their debts or other obligations and, except as provided in Sections 4.06 and 8.02 above and Section 8.11 below, as required by federal or state garnishment orders issued to the Plan or the Company, or as may be required by ERISA, may not be voluntarily or involuntarily sold, transferred, alienated, assigned or encumbered.

Section 8.06 Representations Contrary to the Policy. No officer or employee of the Company has the authority to alter, vary or modify the terms of the Policy or the Severance Benefits available to any Eligible Participant without the written consent of the Board or the Committee. No verbal or written representations contrary to the terms of the Policy and any duly authorized written consent of the Board or Committee shall be binding upon the Company.

Section 8.07 Plan Funding. No Participant or beneficiary thereof shall acquire by reason of this Policy any right in or title to any assets, funds, or property of the Company. Any Severance Benefits that become payable under this Policy are unfunded obligations of the Company and shall be paid from the Company's general assets. No employee, officer, director or agent of the Company guarantees in any manner the payment of Severance Benefits.

Section 8.08 Headings. The headings in this Plan are for convenience of reference and shall not be given substantive effect.

Section 8.09 Gender. Except when the context indicates to the contrary, when used in this Policy, masculine terms shall be deemed to include the feminine.

Section 8.10 Severability. If any provision of this Policy is held illegal or invalid for any reason, the other provisions of this Policy shall not be affected.

Section 8.11 Tax Withholding. Notwithstanding any other provision of this Policy, the Company may withhold from any and all Severance Benefits such United States federal, state or local or foreign taxes as may be required to be withheld pursuant to any applicable law or regulation.

Section 8.12 Non-Exclusivity of Rights. The terms of the Policy shall not prevent or limit the right of a Participant to receive any base annual salary, pension or welfare benefit, perquisite, bonus or other payment provided by the Company to the Participant, except for such rights as the Participant may have specifically waived in writing. Amounts that are vested benefits or which the Participant is otherwise entitled to receive under any benefit policy or program provided by the Company shall be payable in accordance with the terms of such policy or program.

Section 8.13 Indemnification. The CEO and the individuals serving on the Committee shall be indemnified to the fullest extent permitted by applicable law and the Company's Bylaws.

Adopted by the Compensation Committee
on [, 2018]

Exhibit 10.16

ELECTROCORE, INC.
NON-EMPLOYEE DIRECTORS COMPENSATION
POLICY

This Policy (the "Policy") has been adopted by the Board of Directors ("Board") of electroCore, Inc. (the "Corporation") to document and memorialize the amount, timing and form of remuneration payable by the Corporation to its non-employee directors ("Non-Employee Directors") in consideration for their services to the Corporation. The Policy shall become effective as of the effective date of the Corporation's securities registration statement filed with the Securities Exchange Commission in connection with the Corporation's initial public offering (the "Effective Date").

This Policy will apply to the remuneration payable to Non-Employee Directors on or after the Effective Date and will remain in effect until this Policy is modified, replaced or terminated by the Board.

The Non-Employee Directors remuneration will include each of the following:

(a) **Cash Compensation**.

(i) Annual Retainer. Each Non-Employee Director will receive an annual retainer in an amount equal to $40,000 ($60,000 for the Board chair), payable in cash in equal monthly installments on the first business day of each calendar month provided that the Non-Employee Director must continue to serve as a member of the Board through the applicable payment date to receive such monthly installment payment.

(ii) Annual Committee Membership Retainer. In addition to the annual retainer described above, each member of one of the Board committees identified in the table below (other than the chair of such committee) shall receive an annual committee membership retainer in the amount set forth opposite the name of such committee in the table below, payable in cash in equal monthly installments on the first business day of each calendar month commencing on or after the date such Non-Employee Director was appointed to such committee provided that the Non-Employee Director must continue to serve on such committee through the applicable payment date to receive such monthly installment payment.

Committee:	Annual Committee Membership Retainer:
Audit Committee:	$ 8,000
Compensation Committee:	$ 5,000
Nominating & Governance Committee:	$ 3,750

(i) Annual Committee Chair Retainer. The chair of each of Board committee identified in the table below shall receive the annual committee chair retainer in the amount set forth opposite the name of such committee in the table below, payable in cash in equal monthly installments on the first business day of each calendar month commencing on or after the

date of such Non-Employee Director was appointed as the chair of such provided that the Non-Employee Director must continue to serve as chair of such committee through the applicable payment date to receive such monthly installment payment.

Committee:	Annual Committee Membership Retainer:
Audit Committee:	$16,000
Compensation Committee:	$10,000
Nominating & Governance Committee:	$ 7,500

(b) Annual Equity Awards. Immediately following the annual meeting of the Corporation's stockholders each year, the Corporation will grant each Non-Employee Director an annual equity award valued at $100,000 ($150,000 for the Board chair) based on the closing price of the Corporation's common stock on the business day immediately preceding the grant date for such annual equity award. Each Non-Employee Director may elect to receive his or her annual equity award in the form of stock options, deferred stock units or restricted stock units. The Non-Employee Director must file his or her initial election with respect to the form of equity award with the Corporation before the later of the Effective Date or the date he or she becomes a Non-Employee Director. Thereafter, a Non-Employee Director may elect to change the form of equity award with respect to future annual equity awards by filing a new election with the Corporation, which will become effective for calendar years following the year in which the Corporation receives such election. The forms annual equity awards granted pursuant to Paragraph (b) of this Policy will be subject to the terms and conditions (including vesting) set forth in Exhibit A.

(c) One-Time Inaugural Equity Award. Effective on the Effective Date the Corporation will grant each Non-Employee Director an inaugural equity award for valued at $200,000 (based on a [$_____] price per share of the Corporation's common stock). Upon a Non-Employee Director's initial appointment or election to the Board after the Effective Date, the Corporation will grant such Non-Employee Director an inaugural equity award valued at $200,000 based on the closing price of the Corporation's common stock on the business day immediately preceding the date such equity award is granted. Each Non-Employee Director may elect to receive his or her inaugural equity award in the form of stock options, deferred stock units or restricted stock units. The Non-Employee Director must file his or her election with respect to the form of equity award with the Corporation before the later of the Effective Date or the date he or she becomes a Non-Employee Director, as applicable. The inaugural equity awards granted pursuant to Paragraph (c) of this Policy will be subject to the terms and conditions (including vesting) set forth in Exhibit B.

Exhibit A

FORMS OF ANNUAL EQUITY AWARDS

Exhibit B

FORMS OF INAUGURAL EQUITY AWARDS

Exhibit 10.17

July 18, 2016

Mr. Frank Amato

Dear Frank:

On behalf of ElectroCore, LLC, a Delaware company (the "Company"), we are pleased to amend the terms of your continued employment with the Company. Effective as of July 15, 2016, you shall serve as the Chief Executive Officer for the Company. This letter, when countersigned by you, will constitute our agreement (the "Agreement") concerning your role as Chief Executive Officer of the Company.

1. Duties; Termination. During the term of this Agreement, you hereby agree to serve in the capacity noted above (or such other capacity as we shall mutually hereafter agree) and to perform such services as are customarily required of such position and as are assigned to you by the Company's Board of Managers (the "Board") consistent with your position. You will work under the general direction of the Board. Your services will be furnished with respect to such matters as are specified for the position of Chief Executive Officer in the Company's Amended and Restated Operating Agreement (as such agreement may be further amended from time to time, the "Operating Agreement"), and during your term of employment you will devote your full business time to your duties to the Company and you shall not engage in any other business activities without the prior written consent of the Company.

Either party may terminate this Agreement at any time by providing the other with written notice of such termination and subject to any continuing obligations as specified hereunder.

2. Compensation. As full compensation for your service to the Company from and after the date hereof, and in consideration for the assignment of the Intellectual Property, and restrictive covenants as provided below, you shall receive, subject to customary payroll withholdings and adjustments from time to time at the Company's discretion:

(i) Base Salary: a base salary at the rate of $400,000 per year, in each case paid in accordance with the Company's customary payroll practices;

(ii) 2016 Cash Bonus: for calendar year 2016, a guaranteed cash bonus equal to 17.5% of your annual base salary (i.e., $70,000), payable in January 2017 provided you are still employed by the Company;

(iii) Future Cash Bonuses: for each additional calendar year during your employment with the Company, an annual target cash bonus of up to 17.5% of annual base salary, payable at Board discretion;

(iv) One-Time Milestone Based Cash Bonus. a one-time $125,000 cash bonus payable within 30 days of satisfaction of the last to occur of the following two conditions, provided you are still employed by the Company at such time:

(A) receipt by the Company of written notice from the FDA that the Company's de novo request for classification of the gammaCore® device as a class II medical device has been granted and that the Company can market the gammaCore® device in at least one indication as described in the Company's current de novo application, subject to any general and special control provisions; and

(B) the closing by the Company of either a Qualified Transaction or a Qualified Financing. A "Qualified Transaction" shall mean (i) a licensing or sale transaction covering one or more of the Company's products in one or more targeted indications or fields (such as headache, gastroparesis, asthma, inflammation, etc., or neurology in general) in a licensed territory, with a major pharmaceutical or medical device in which the Company receives not less than $25 million in upfront payments, or (ii) a sale of the Company ("Sale of the Company") in its entirety (whether by asset purchase, merger or otherwise). A "Qualified Financing" shall mean the sale by the Company of its equity securities in one or more related transactions in which the Company receives gross proceeds of not less than $25 million;

(v) One-Time Equity Grant; Anti-Dilution: a one-time grant of 3,500,000 Common Units in the Company to bring your total equity ownership as of the date hereof to 3.0%. The Company hereby agrees to provide you with anti-dilution protection for your equity interest in the Company such that your equity ownership in the Company shall be maintained at 3% of the total outstanding Units through the earlier of (i) termination of employment, (ii) the final closing of the Company's next preferred equity financing (expected to be a Series B financing), and (iii) commencement of a Series C financing or a public offering (the "Measurement Date"). As of the Measurement Date, as necessary, you will receive a Common Unit "profits interest" grant at the pricing of the applicable financing (or more recent "profits interest" grant, if applicable) as necessary to provide you with the foregoing protection; and

(vi) Benefits: benefits as may be provided from time to time by the Company to its executive employees generally, which currently include participation in a standard medical benefit plan and self-funded 401k plan.

All of the Units granted herein will be subject to forfeiture pursuant to a Unit Forfeiture Agreement with the Company in the event of the termination by either party of your employment with the Company. Such agreement shall provide that the applicable Units shall vest, subject to your continued service to the Company, 25% on the one year anniversary of the grants date and the balance ratably per quarter thereafter over an additional 3-year period.

Simultaneous herewith, the Company is delivering to you a copy of the Unit Forfeiture Agreement together with a copy of the Company's Operating Agreement (to which you are already a party). If you wish to accept these terms of your continued employment and the foregoing grant, please sign this letter agreement and the Unit Forfeiture Agreement where indicated and return one fully-executed original to us. You should retain the other original for your records.

The parties acknowledge that the Units granted and to be granted hereunder are intended to constitute "profits interests" for services to be rendered for federal income tax purposes and the provisions of this Agreement shall be interpreted consistently therewith. It is understood that in connection with the issuance of such Units pursuant to this Agreement, your capital account with the Company (together with the capital accounts of the other members of the Company) will be adjusted in accordance with the Company's Operating Agreement based on an estimated value of the Common Units as of the applicable grant date. The effect of this revaluation is that generally, with respect to the granted Units, you will be entitled only to your share of profit in the Company in excess of the fair market value of the applicable Units as of the date of grant (as thereafter adjusted in accordance with the Company's Operating Agreement).

3. At-Will Employment. You acknowledge and agree that your employment with the Company is "at will," meaning that either you or the Company (acting through its Board of Managers or an officer expressly authorized to so act) may terminate your employment with the Company at any time and for any reason (or no reason) upon written notice to the other party.

4. Confidential Information. You shall not use for your personal benefit, or disclose, communicate or divulge to, or use for the direct or indirect benefit of any person, corporation or other entity, other than the Company, any information (including all derivatives, enhancements and improvements thereto developed by you) regarding procedures, techniques, computer programs, research or development projects or results, clinical or other data, trade secrets or inventions used or developed by the Company or the Company's partners, customers or clients, or any names or addresses of patients, customers or clients, or any data on or relating to past, present or prospective patients, partners, customers or clients, or any other confidential information relating to or dealing with the business operations or activities of the Company or the Company's patients, partners, customers or clients, made known to you or learned or acquired by you from or through the Company or in connection with your employment with the Company. Regardless of the period of time you serve as an employee to the Company, you agree to be bound by this obligation until such time as, and to the extent that, such information is published by the Company or is in or becomes part of the public domain (other than by reason of your fault or breach of this Agreement).

5. IP Assignment. You hereby transfer, convey and assign all of your right, title, and interest in and to all Inventions, whether or not such Inventions are reduced to practice, and to all know-how and trade secrets relating thereto, and in and to any and all continuations, continuations-in-part, divisions, reissues, reexaminations and extensions thereof, and to all international priority rights and all foreign rights relating to each of the foregoing throughout the world, along with any and all rights of enforcement with respect thereto, including all rights to sue, settle and recover for the past, present and future infringement thereof, and any and all causes of action related thereto (the "Intellectual Property"). The term "Inventions" shall mean all intellectual property, including, but not limited to, any and all inventions, copyrights, copyright applications or registrations, original works of authorship, developments, improvements, patents, patent applications, trademarks, trademark applications, trade names or trade secrets, whether owned or created solely by you or jointly with another, heretofore or hereafter developed until such time as you cease to be

an employee to the Company hereunder, in the case of all of the foregoing only to the extent related to or arising out of your employment with the Company, developed on Company time or with Company property or related to the design, development, manufacture and sale of the Company's actual or proposed products and/or services, including, without limitation, those relating to neurostimulation technologies for use in innovative and proprietary applications in medicine (the "Business"). You agree to execute all patent applications, assignments and other documents, and to take all other steps, necessary to vest in the Company the right, title and interest in and to the Intellectual Property and in and to any and all patents obtainable therefor and/or related thereto in the United States and in foreign countries, and to take all actions as reasonably requested by the Company, at the Company's expense, to secure and maintain all rights of the Company in and to the Intellectual Property.

6. Restrictive Covenant. During your service as an employee to the Company and for a period of one (1) year after the termination thereof for any reason, you shall not (nor shall you assist, cooperate with, invest in or with (provided you may acquire stock or other security listed on a national securities exchange or traded on a daily basis in the over-the-counter market not in excess of 2% of the company whose stock or other securities are being acquired), or permit any of your affiliates or relatives to) directly or indirectly, develop, own, manage, operate, control, invent or in any manner participate in the development, ownership, management, operation, control or invention of, or serve as a partner, employee, principal, agent, consultant or otherwise contract with, or have any financial interest in, or aid or assist any other person or entity that is in competition with the Business.

If a court of competent jurisdiction should declare this Section, or any provision hereof, unenforceable because of any unreasonable restriction of duration and/or activity, then you hereby acknowledge and agree that such court shall have the express authority to reform this Agreement to provide for reasonable restrictions and/or grant the Company such other relief, at law or in equity, reasonably necessary to protect the interests of the Company. You specifically acknowledge that a breach of this Section would cause the Company and its Members to suffer immediate and irreparable harm, which could not be remedied by the payment of money. In the event of a breach or threatened breach by you of any of the provisions of this Agreement, the Company and its Members shall be entitled to injunctive relief to end such breach, without the requirement to post bond, and shall be entitled to recover reasonable attorneys' fees and expenses. If the Company shall commence an action pursuant to this Agreement and a Court shall make a final determination denying the injunctive relief sought, you shall be entitled to recover reasonable attorneys' fees and expenses from the Company in defense of such action if the court determines the Company's action had no justifiable basis in law. Nothing herein shall be construed as prohibiting the Company from pursuing any other remedies available to it for such breach or such threatened breach, including the recovery of damages. Notwithstanding anything herein or in any Unit Forfeiture Agreement to the contrary, in the event of your breach of this Section, all of the Units granted hereunder shall be deemed Unvested Units for purposes of the Unit Forfeiture Agreement and such Units shall be forfeit to the Company pursuant to the terms thereof.

Severance: In the event that (i) your employment is terminated by the Company, other than for Cause, or (ii) you terminate your employment for Good Reason, then you shall be entitled to receive, in equal monthly installments as salary continuation for a period of six months following any such termination of your employment, an amount equal to the sum of (A) your then current monthly base salary, and (B) the cost to you of your medical and/or dental coverage elected under COBRA (until you become eligible for comparable coverage from another employer), less applicable tax and other payroll withholding amounts.

For purposes of this Agreement, "Cause" shall mean (i) your gross negligence or willful misconduct in the performance of your duties to the Company; (ii) the conviction of, or plea of guilty or nolo contendere to, the commission of a felony by you; (iii) the commission by you of an act of fraud or embezzlement against the Company; or (iv) your breach of any material provision of this Agreement. For purposes of this Agreement, "Good Reason" shall mean (i) a material adverse change in your position, duties, responsibilities, or status with the Company, (ii) a material breach by the Company of any provision of this Agreement, including without limitation, a material reduction in your base salary or benefits other than in connection with an across the board salary reduction by the Company for senior management due to material cash flow problems; or (iii) without your consent, relocation of your principal business location by the Company outside of the northern New Jersey/New York metropolitan area.

7. Representations and Warranties. You represent that (i) your execution of this Agreement and your performance of your services hereunder do not and will not breach any other agreement, arrangements, understanding, obligation of confidentiality or employment relationship to which you are a party or by which you are bound and that during the term of this Agreement or any extensions thereof, you will not enter into any agreement, either written or oral, in conflict herewith, and (ii) you have such knowledge and experience in financial, business and tax matters that you are capable of adequately evaluating and analyzing the merits and risks relating to your investment in the Acquired Units and that you are an "accredited investor" within the meaning of Rule 501 of Regulation D of the Securities Act of 1933, as amended. You also acknowledge and agree that you shall not provide to the Company or use in connection with your employment by the Company any proprietary or confidential information or intellectual property of any of your previous employers.

8. Miscellaneous. This Agreement, together with the documents referred to herein, contains the entire agreement of the parties with respect to the subject matter hereof and supersedes and merges all prior written or oral agreements between us relating to the subject matter herein, including your Offer Letter dated July 3, 2012 and Offer Letter Amendment dated May __, 2016. This Agreement may be amended only by a written instrument signed by you and an authorized representative of the Company other than you. Because of the personal nature of the services to be rendered by you under this Agreement, you may not assign this Agreement without the prior written consent of the Company. Any provision of this Agreement which is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof or affecting the validity or enforceability of such provision in any other jurisdiction.

9. Governing Law; Jurisdiction. This Agreement shall be governed in accordance with the law of the State of New Jersey. The parties hereto consent to the jurisdiction of the courts of the State of New Jersey for all disputes arising pursuant to this Agreement.

If you are in agreement with the foregoing terms, please indicate such agreement by signing the enclosed duplicate original of this letter in the space provided and returning it to the Company.

Very truly yours,

ELECTROCORE, LLC

By: /s/ JP Errico
Name: JP Errico
Title: Chief Executive Officer

ACCEPTED AND AGREED TO:

/s/ Frank Amato
Frank Amato

Dated as of July 18, 2016

Exhibit 10.18

July 18, 2016

Mr. Joseph P. Errico

Dear JP:

On behalf of ElectroCore, LLC, a Delaware company (the "Company"), we are pleased to confirm in writing the terms of your continued employment with the Company, effective as of July 15, 2016, as Chief Science & Strategy Officer for the Company. This letter, when countersigned by you, will constitute our agreement (the "Agreement") concerning your role as Chief Science & Strategy Officer.

1. Duties; Termination. During the term of this Agreement, you hereby agree to serve in the capacity noted above (or such other capacity as we shall mutually hereafter agree) and to perform such services as are customarily required of such position and as are assigned to you by the Company's Chief Executive Officer (the "CEO") or Board of Managers (the "Board") consistent with your position. You will work under the general direction of the CEO. During your term of employment with the Company you will devote your full business time to your duties to the Company hereunder; provided that nothing herein or otherwise shall (i) restrict or prohibit you from managing your personal investments ("Personal Investments"), and (ii) serving as a board member or manager of companies in connection with the management of your Personal Investments, provided such management or service does not materially detract from your duties to the Company.

Either party may terminate this Agreement at any time by providing the other with written notice of such termination and subject to any continuing obligations as specified hereunder.

2. Compensation. As full compensation for your service to the Company hereunder and in consideration for the assignment of the Intellectual Property and restrictive covenants as provided below, you shall receive, subject to customary payroll withholdings:

(i) a base salary of $350,000 (subject to increase as approved by the Board) per year, paid in accordance with the Company's customary payroll practices;

(ii) a performance bonus payable solely at the discretion of the Board based on your performance and the performance of the Company;

(iii) benefits as may be provided from time to time by the Company to its executive employees generally, which currently include participation in a standard medical benefit plan and self-funded 401k plan;

(iv) participation in the Company's Transaction Bonus Plan in accordance with the Company's Operating Agreement, as amended from time to time;

(v) a one-time grant of 1,700,000 Common Units in the Company (approximately 1.0% of the outstanding Units in the Company as of the date hereof). The Company hereby agrees to provide you with anti-dilution protection for this grant, together with 1,700,000 of Common Units currently owned by you (collectively, the "Anti-Dilution Units"), such that if, as of the Measurement Date (as defined below), the Anti-Dilution Units represent less than 2% of the total outstanding Units, you will receive a Common Unit "profits interest" grant at the pricing of the applicable financing (or more recent "profits interest grant, if applicable) as necessary so that the Anti-Dilution Units, together with such additional grant, shall equal 2% of the total outstanding Units. The term "Measurement Date" shall mean the earlier of (i) termination of your employment with the Company, (ii) the final closing of the Company's next preferred equity financing (expected to be a Series B financing), and (iii) commencement of a Series C financing or a public offering; and

(vi) additional equity grants solely at the discretion of the Board in accordance with the Company's Operating Agreement, including any consents required thereunder.

All of the Units granted herein will be subject to forfeiture pursuant to a Unit Forfeiture Agreement with the Company in the event of the termination by either party of your employment with the Company. Such agreement shall provide that the applicable Units shall vest, subject to your continued service to the Company, 25% on the one year anniversary of the grants date and the balance ratably per quarter thereafter over an additional 3-year period.

The parties acknowledge that the Units granted and to be granted hereunder are intended to constitute "profits interests" for services to be rendered for federal income tax purposes and the provisions of this Agreement shall be interpreted consistently therewith. It is understood that in connection with the issuance of such Units pursuant to this Agreement, your capital account with the Company (together with the capital accounts of the other members of the Company) will be adjusted in accordance with the Company's Operating Agreement based on an estimated value of the Common Units as of the applicable grant date. The effect of this revaluation is that generally, with respect to the granted Units, you will be entitled only to your share of profit in the Company in excess of the fair market value of the applicable Units as of the date of grant (as thereafter adjusted in accordance with the Company's Operating Agreement).

3. At-Will Employment. You acknowledge and agree that your employment with the Company is "at will," meaning that either you or the Company (acting through its Board of Managers) may terminate your employment with the Company at any time and for any reason (or no reason) upon notice to the other party, subject to any severance obligation under Paragraph 6.

4. Confidential Information. You shall not use for your personal benefit, or disclose, communicate or divulge to, or use for the direct or indirect benefit of any person, corporation or other entity, other than the Company, any information (including all derivatives, enhancements and improvements thereto developed by you) regarding

procedures, techniques, computer programs, research or development projects or results, clinical or other data, trade secrets or inventions used or developed by the Company or the Company's partners, customers or clients, or any names or addresses of patients, customers or clients, or any data on or relating to past, present or prospective patients, partners, customers or clients, or any other confidential information relating to or dealing with the business operations or activities of the Company or the Company's patients, partners, customers or clients, made known to you or learned or acquired by you from or through the Company or in connection with your employment with the Company. Regardless of the period of time you serve as an employee to the Company, you agree to be bound by this obligation until such time as, and to the extent that, such information is published by the Company or is in or becomes part of the public domain (other than by reason of your fault or breach of this Agreement). The Company acknowledges that you have investments in other companies not directly in the Company's Business (as defined below) and you and such companies make a wide range of investments across many industries, including investments that may be deemed indirectly competitive to the Company's Business, and the Company agrees that nothing in this Agreement shall restrict you from continuing such activities; provided that you do not disclose proprietary or confidential information of the Company (until such time as any such information becomes public other than through your breach of this Agreement).

5. IP Assignment. You hereby transfer, convey and assign all of your right, title, and interest in and to all Intellectual Property, whether or not such Intellectual Property is reduced to practice, and to all know-how and trade secrets relating thereto, and in and to any and all continuations, continuations-in-part, divisionals, reissues, reexaminations and extensions thereof, and to all international priority rights and all foreign rights relating to each of the foregoing throughout the world, along with any and all rights of enforcement with respect thereto, including all rights to sue, settle and recover for the past, present and future infringement thereof, and any and all causes of action related thereto The term "Intellectual Property" shall mean all intellectual property, including, but not limited to, any and all inventions, copyrights, copyright applications or registrations, original works of authorship, software, developments, improvements, patents, patent applications, trademarks, trademark applications, service marks, service mark applications, trade names or trade secrets, domain names, mask works, information and proprietary rights and processes, whether owned or created solely by you or jointly with another, heretofore or hereafter developed until such time as you cease to be an employee of the Company hereunder, in the case of all of the foregoing only to the extent related to or arising out of your employment with the Company, developed on Company time or with Company property or related to the design, development, manufacture and sale of the Company's actual or proposed products and/or services, including, without limitation, those relating to neurostimulation technologies for use in innovative and proprietary applications in medicine (the "Company's Business"). You agree to execute all applications, assignments and other documents, and to take all other steps, necessary to vest in the Company the right, title and interest in and to the Intellectual Property and in and to any and all Intellectual Property obtainable therefor and/or related thereto in the United States and in foreign countries, and to take all actions as reasonably requested by the Company, at the Company's expense, to secure, maintain and enforce all rights of the Company in and to the Intellectual Property.

6. Restrictive Covenant. During your service as an employee to the Company and so long as you are receiving severance payments hereunder, you shall not (nor shall you assist, cooperate with, or invest in or with) directly or indirectly, develop, own, manage, operate, control, invent or in any manner participate in the development, ownership,

management, operation, control or invention of, or serve as a partner, employee, principal, agent, consultant or otherwise contract with, or have any financial interest in, or aid or assist any other person or entity that is directly involved in the Company's Business; provided that the foregoing shall not restrict you from managing or investing funds in connection with your Personal Investments, provided such management or investment does not materially detract from your duties to the Company.

If a court of competent jurisdiction should declare this Section, or any provision hereof, unenforceable because of any unreasonable restriction of duration and/or activity, then you hereby acknowledge and agree that such court shall have the express authority to reform this Agreement to provide for reasonable restrictions and/or grant the Company such other relief, at law or in equity, reasonably necessary to protect the interests of the Company. You specifically acknowledge that a breach of this Section would cause the Company and its Members to suffer immediate and irreparable harm, which could not be remedied by the payment of money. In the event of a breach or threatened breach by you of any of the provisions of this Agreement, the Company shall be entitled to injunctive relief to end such breach, without the requirement to post bond, and shall be entitled to recover reasonable attorneys' fees and expenses. If the Company shall commence an action pursuant to this Agreement and a Court shall make a final determination denying the injunctive relief sought, you shall be entitled to recover reasonable attorneys' fees and expenses from the Company in defense of such action if the court determines the Company's action had no justifiable basis in law. Nothing herein shall be construed as prohibiting the Company from pursuing any other remedies available to it for such breach or such threatened breach, including the recovery of damages.

In the event that (i) your employment is terminated by the Company, other than for Cause, or (ii) you terminate your employment for Good Reason, then you shall be entitled to receive, in equal monthly installments as salary continuation for a period of twelve months following any such termination of your employment, an amount equal to the sum of (A) your then current monthly base salary, and (B) the cost to you of your medical and/or dental coverage elected under COBRA (until you become eligible for comparable coverage from another employer), less applicable tax and other payroll withholding amounts.

For purposes of this Agreement, "Cause" shall mean (i) your gross negligence or willful misconduct in the performance of your duties to the Company; (ii) the conviction of, or plea of guilty or nolo contendere to, the commission of a felony by you; (iii) the commission by you of an act of fraud or embezzlement against the Company; or (iv) your breach of any material provision of this Agreement, subject to prior written notice to you and a reasonable cure period. For purposes of this Agreement, "Good Reason" shall mean (i) a material adverse change in your position, duties, responsibilities, or status with the Company, (ii) a material breach by the Company of any provision of this Agreement, including without limitation, any reduction in your base salary other than in connection with an across the board salary reduction by the Company for senior management due to material cash flow problems; or (iii) without your consent, relocation of your principal business location by the Company outside of the northern New Jersey/New York metropolitan area.

7. Representations and Warranties. You represent that your execution of this Agreement and your performance of your services hereunder do not and will not breach any other agreement, arrangements, understanding, obligation of confidentiality or employment relationship to which you are a party or by which you are bound and that during the term of this Agreement or any extensions thereof, you will not enter into any agreement, either written or oral, in conflict herewith.

8. Miscellaneous. This Agreement, together with the documents referred to herein, contains the entire agreement of the parties with respect to the subject matter hereof and supersedes and merges all prior written or oral agreements between us relating to the subject matter herein, , including your Offer Letter dated March 28, 2013. This Agreement may be amended only by a written instrument signed by you and another officer of the Company authorized by the Board to do so. Because of the personal nature of the services to be rendered by you under this Agreement, you may not assign this Agreement without the prior written consent of the Company. Any provision of this Agreement which is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof or affecting the validity or enforceability of such provision in any other jurisdiction.

9. Governing Law; Jurisdiction. This Agreement shall be governed in accordance with the law of the State of New Jersey. The parties hereto consent to the jurisdiction of the courts of the State of New Jersey for all disputes arising pursuant to this Agreement.

[*Remainder of Page Left Intentionally Blank*]

If you are in agreement with the foregoing terms, please indicate such agreement by signing the enclosed duplicate original of this letter in the space provided and returning it to the Company.

Very truly yours,

ELECTROCORE, LLC

By: /s/ Frank Amato
Name: Frank Amato
Title: Chief Executive Officer

ACCEPTED AND AGREED TO:

/s/ Joseph P. Errico
Joseph P. Errico

Exhibit 10.19

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May 1, 2017

Dr. Peter Staats, M.D.

Dear Dr. Staats:
On behalf of ElectroCore, LLC, a Delaware company (the "Company"), I am pleased to offer you a position as Chief Medical Officer effective as of the date of this letter or such later date as we shall mutually agree. In this role, you will report to Frank Amato, Chief Executive Officer.

This letter, when signed by you, will constitute our agreement (the "Agreement") concerning your role as an employee of the Company.

1. Duties; Termination. During the term of this Agreement, you hereby agree to serve in the capacity noted above (or such other capacity as we shall mutually hereafter agree) and to perform such services as are customarily required of such position and as are assigned to you by the Company's Chief Executive Officer, or other authorized senior executives.

As of your start date and through the remainder of your term of employment with the Company, you shall devote 2 (two) days weekly to your duties to the Company or its affiliates and you shall have the right to engage in other business activities with the prior written consent of the Company. Either party may terminate this Agreement at any time by providing the other with written notice of such termination.

2. Compensation. As full compensation for your service to the Company hereunder and in consideration for the assignment of the Intellectual Property (as provided below), you shall receive:

(a) For three calendar months beginning May 1, 2017, a base salary of $140,000 annually, less applicable withholding taxes, paid semi-monthly in accordance with the Company's customary payroll practices;

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(b) beginning August 1, 2017, a base salary of $280,000 for 4 days per week, less applicable withholding taxes, paid semi-monthly in accordance with the Company's customary payroll practices (as such amount may be adjusted from time to time at the Company's discretion, however, the Company shall undertake a review of your salary 6 months after your hire date);

(c) an annual discretionary bonus based on your individual performance as well as the performance of the Company. Such bonus shall be paid, if at all, at the discretion of the Company's Board of Managers and you must be employed with the Company on the bonus payment date to receive any such bonus;

(d) the Company agrees to reimburse you for CME continuing education credits and associated expenses, providing you maintain your Accreditation in good standing during your employment;

(e) benefits as may be provided from time to time by the Company to its employees generally;

(f) a one-time grant of 1,500,000 Units in the Company. Such Units will be subject to forfeiture pursuant to a Unit Forfeiture Agreement with the Company in the event of the termination by either party of your employment with the Company. Such agreement provides that such Units shall vest, subject to your continued service to the Company, 25% of the units on the one year anniversary of the date of your employment start date, with the balance ratably per quarter thereafter over an additional 3-year period. The parties acknowledge and agree that the foregoing grant is intended to constitute a grant of "profits interests" for services to be rendered for federal income tax purposes and the provisions of this agreement shall be interpreted consistently therewith. It is understood that in connection with the issuance of such profits interests pursuant to this Agreement, your capital account with the Company (together with the capital accounts of the other members of the Company) will be adjusted in accordance with the Company's Operating Agreement based on an estimated value of the Company of the 2016 per Unit amount. The effect of this revaluation is that generally, with respect to such grant, you will be entitled only to your share of profit in the Company in excess of the fair market value of the Company as of the date of such grant (as hereinafter adjusted in accordance with the Company's Operating Agreement); and

Simultaneous herewith, the Company is delivering to you a copy of a Unit Forfeiture Agreement and the Operating Agreement of each applicable company with respect to

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each of the foregoing grants. If you wish to accept these terms of employment, please sign this Agreement, each Unit Forfeiture Agreement and each Operating Agreement where indicated and return one fully-executed original of each to us. You should retain a copy for your records.

3. At-Will Employment. You acknowledge and agree that your employment with the Company is "at will," meaning that either you or the Company (acting through its Board of Managers or an officer expressly authorized to so act) may terminate your employment with the Company at any time and for any reason (or no reason) upon notice to the other party.

4. Confidential Information. You shall not use for your personal benefit, or disclose, communicate or divulge to, or use for the direct or indirect benefit of any person, corporation or other entity, other than the Company or its affiliates, any information (including all derivatives, enhancements and improvements thereto developed by you) regarding procedures, techniques, computer programs, research or development projects or results, trade secrets or inventions used or developed by the Company, or its respective customers or clients, or any names or addresses of customers or clients, or any data on or relating to past, present or prospective customers or clients, or any other confidential information relating to or dealing with the business operations or activities of the Company, or its respective customers or clients, made known to you or learned or acquired by you from or through the Company or in connection with your employment with the Company or the provision of services hereunder. Regardless of the period of time you serve as an employee to the Company, you agree to be bound by this obligation until such time as, and to the extent that, such information is published by the Company or is in or becomes part of the public domain (other than by reason of your fault or breach of this Agreement).

5. IP Assignment. You hereby transfer, convey and assign all of your right, title, and interest in and to all Inventions, whether or not such Inventions are reduced to practice, and to all know-how and trade secrets relating thereto, and in and to any and all continuations, continuations-in-part, divisions, reissues, reexaminations and extensions thereof, and to all international priority rights and all foreign rights relating to each of the foregoing throughout the world, along with any and all rights of enforcement with respect thereto, including all rights to sue, settle and recover for the past, present and future infringement thereof, and any and all causes of action related thereto (the "Intellectual Property"). The term "Inventions" shall mean all intellectual property, including, but not limited to, any and all inventions, copyrights, copyright applications or registrations, original works of authorship, developments, improvements, patents, patent applications, trademarks, trademark applications, trade names or trade secrets, whether owned or created solely by you or jointly with another hereafter developed until such

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time as you cease to be an employee of the Company hereunder, in the case of all of the foregoing to the extent developed in connection with your employment with the Company or related to the design, development, manufacture or sale of the Company's products or services. You agree to execute all patent applications, assignments and other documents, and to take all other steps, necessary to vest in the Company or its assigns the right, title and interest in and to the Intellectual Property and in and to any and all patents obtainable therefor and/or related thereto in the United States and in foreign countries, and to take all actions as reasonably requested by the Company, at the Company's expense, to secure and maintain all rights of the Company or its assigns in and to the Intellectual Property.

6. Restrictive Covenant; Severance. During the term of your employment by the Company and for a period of six months after the termination of this Agreement, you shall not (nor shall you assist, cooperate with, invest in or with, or permit any of your affiliates or relatives to), directly or indirectly, develop, own, manage, operate, control, invent or in any manner participate in the development, ownership, management, operation, control or invention of, or serve as a partner, employee, principal, agent, consultant or otherwise contract with, or have any financial interest in, or aid or assist any other person or entity that is involved in the development, ownership, management operation, control or invention of technologies directly competitive with the Company's proposed products or services.

If a court of competent jurisdiction should declare this Section, or any provision hereof, unenforceable because of any unreasonable restriction of duration and/or activity, then you hereby acknowledge and agree that such court shall have the express authority to reform this Agreement to provide for reasonable restrictions and/or grant the Company such other relief, at law or in equity, reasonably necessary to protect the interests of the Company. By signing below, you specifically acknowledge that a breach of this Section would cause the Company and its Members to suffer immediate and irreparable harm, which could not be remedied by the payment of money. In the event of a breach or threatened breach by you of any of the provisions of this Section, the Company and its Members shall be entitled to injunctive relief to prevent or end such breach, without the requirement to post bond, and shall be entitled to recover reasonable attorneys' fees and expenses. Nothing herein shall be construed as prohibiting the Company from pursuing any other remedies available to it for such breach or such threatened breach, including the recovery of damages.

7. Representations and Warranties. You represent that (i) your execution of this Agreement and your performance of your services hereunder do not and will not breach any other agreement, arrangements, understanding, obligation of confidentiality or employment relationship to which you are a party or by which you are bound and that during the term of

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this Agreement or any extensions thereof, you will not enter into any agreement, either written or oral, in conflict herewith, and (ii) you have such knowledge and experience in financial, business and tax matters that you are capable of adequately evaluating and analyzing the merits and risks relating to your investment in the Units granted hereunder and that you are an "accredited investor" within the meaning of Rule 50 I of Regulation D of the Securities Act of 1933, as amended.

8. Miscellaneous. This Agreement, together with the documents referred to herein, contains the entire agreement of the parties with respect to the subject matter hereof and may be amended only by a written instrument signed by you and the Company. Because of the personal nature of the services to be rendered by you under this Agreement, you may not assign this agreement without the prior written consent of the Company. Any provision of this Agreement which is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof or affecting the validity or enforceability of such provision in any other jurisdiction.

9. Governing Law; Jurisdiction. This Agreement shall be governed in accordance with the laws of the State of New Jersey. The parties hereto consent to the jurisdiction of the courts of the State of New Jersey for all disputes arising pursuant to this Agreement.

If you are in agreement with the foregoing terms, please indicate such agreement by signing the enclosed duplicate original of this letter in the space provided and returning it to the Company.

Very truly yours,

ElectroCore, LLC

By: /s/ Francis Amato
Name: Francis Amato
Title: Chief Executive Officer

Acknowledged and Agreed:

/s/ Dr. Peter Staats, M.D.
Dr. Peter Staats, M.D.

Exhibit 10.20

July 25, 2016
Mr. Glenn Vraniak

Dear Glenn:

On behalf of ElectroCore, LLC, a Delaware limited liability company (the "Company"), I am pleased to confirm in writing the terms of your employment with the Company, effective as of August 15, 2016 (the "Employment Start Date"), as Chief Financial Officer for the Company. This letter, when countersigned by you, will constitute our agreement (the "Agreement") concerning your role with the Company.

1. Duties; Termination. During the term of this Agreement, you hereby agree to serve in the capacity noted above (or such other capacity as we shall mutually hereafter agree) and to perform such services as are customarily required of such position and as are assigned to you by the Company's Chief Executive Officer (the "CEO") or Board of Managers (the "Board") consistent with your position. You will work under the general direction of the CEO, and during your term of employment you will devote not less than your full business time to your duties to the Company and you shall not engage in any other business activities competitive with the Company or that otherwise materially adversely affect your duties to the Company.

Either party may terminate this Agreement at any time by providing the other with not less than 30 days prior written notice of such termination; provided the Company may provide shorter notice provided we pay your salary for not less than the full 30 day notice period and provided further that no notice or payment is required by the Company in the event such termination is for Cause (as defined below).

2. Compensation. As full compensation for your service to the Company hereunder and in consideration for the assignment of the Intellectual Property and restrictive covenants as provided below, you shall receive, subject to customary payroll withholdings:

(i) a one-time grant of 225,000 Common Units in the Company, effective as of the Employment Start Date. You acknowledge and agree that you shall receive no cash compensation for the period from the Employment Start Date through December 31, 2016 and that grant is an additional grant to satisfy your compensation for such period. The foregoing Units will be subject to forfeiture pursuant to a Unit Forfeiture Agreement with the Company in the event of the termination by either party of your employment with the Company prior to December 31, 2016. Such agreement shall provide that such Units shall vest, subject to your continued service to the Company, at a rate of 50,000 Units per month;

(ii) beginning January 1, 2017, a base salary of $300,000 (subject to increase as approved by the Board) per year, paid in accordance with the Company's customary payroll practices;

(iii) an annual performance bonus payable solely at the discretion of the Board based on your performance and the performance of the Company;

(iv) a one-time grant of 1,700,000 Common Units in the Company (approximately 1.0% of the outstanding Units in the Company as of the date hereof). The Company hereby agrees to provide you with anti-dilution protection for this grant (collectively, the "Anti-Dilution Units"), such that if, as of the Measurement Date (as defined below), the Anti-Dilution Units represent less than 1% of the total outstanding Units, you will receive a Common Unit "profits interest" grant at the pricing of the applicable financing (or more recent "profits interest grant, if applicable) as necessary so that the Anti-Dilution Units, together with such additional grant, shall equal 1% of the total outstanding Units. The term "Measurement Date" shall mean the earlier of (i) termination of your employment with the Company (provided that this subsection (iv) shall not apply in the event of a termination of your employment for Cause), (ii) the final closing of the Company's next preferred equity financing (expected to be a Series B financing), and (iii) commencement of a Series C financing or a public offering; and

(v) benefits as may be provided from time to time by the Company to its executive employees generally, which currently include participation in a standard medical benefit plan and self-funded 401k plan.

All of the Units granted pursuant to subsection (iv) will be subject to forfeiture pursuant to a Unit Forfeiture Agreement with the Company in the event of the termination by either party of your employment with the Company. Such agreement shall provide that the applicable Units shall vest, subject to your continued service to the Company, 25% on the one year anniversary of the grants date and the balance ratably per quarter thereafter over an additional 3-year period.

The parties acknowledge that all of the Units granted and to be granted hereunder are intended to constitute "profits interests" for services to be rendered for federal income tax purposes and the provisions of this Agreement shall be interpreted consistently therewith. It is understood that in connection with the issuance of such Units pursuant to this Agreement, your capital account with the Company (together with the capital accounts of the other members of the Company) will be adjusted in accordance with the Company's Operating Agreement based on an estimated value of the Common Units as of the applicable grant date. The effect of this revaluation is that generally, with respect to the granted Units, you will be entitled only to your share of profit in the Company in excess of the fair market value of the applicable Units as of the date of grant (as thereafter adjusted in accordance with the Company's Operating Agreement).

3. At-Will Employment. You acknowledge and agree that your employment with the Company is "at will," meaning that either you or the Company (acting through its Board of Managers) may terminate your employment with the Company at any time and for any reason (or no reason) upon written notice to the other party, subject to any severance obligation under Paragraph 6.

4. Confidential Information. You shall not use for your personal benefit, or disclose, communicate or divulge to, or use for the direct or indirect benefit of any person, corporation or other entity, other than the Company, any information (including all derivatives, enhancements and improvements thereto developed by you) regarding procedures, techniques, computer programs, research or development projects or results, clinical or other data, trade secrets or inventions used or developed by the Company or the Company's partners, customers or clients, or any names or addresses of patients, customers or clients, or any data on or relating to past, present or prospective patients, partners, customers or clients, or any other confidential information relating to or dealing with the business operations or activities of the Company or the Company's patients, partners, customers or clients, made known to you or learned or acquired by you from or through the Company or in connection with your employment with the Company. Regardless of the period of time you serve as an employee to the Company, you agree to be bound by this obligation until such time as, and to the extent that, such information is published by the Company or is in or becomes part of the public domain (other than by reason of your fault or breach of this Agreement). The Company acknowledges that you have investments in other companies not directly in the Company's Business (as defined below) and you and such companies make a wide range of investments across many industries, including investments that may be deemed indirectly competitive to the Company's Business, and the Company agrees that nothing in this Agreement shall restrict you from continuing such activities; provided that you do not disclose proprietary or confidential information of the Company (until such time as any such information becomes public other than through your breach of this Agreement).

5. IP Assignment. You hereby transfer, convey and assign all of your right, title, and interest in and to all Intellectual Property, whether or not such Intellectual Property is reduced to practice, and to all know-how and trade secrets relating thereto, and in and to any and all continuations, continuations-in-part, divisionals, reissues, reexaminations and extensions thereof, and to all international priority rights and all foreign rights relating to each of the foregoing throughout the world, along with any and all rights of enforcement with respect thereto, including all rights to sue, settle and recover for the past, present and future infringement thereof, and any and all causes of action related thereto The term "Intellectual Property" shall mean all intellectual property, including, but not limited to, any and all inventions, copyrights, copyright applications or registrations, original works of authorship, software, developments, improvements, patents, patent applications, trademarks, trademark applications, service marks, service mark applications, trade names or trade secrets, domain names, mask works, information and proprietary rights and processes, whether owned or created solely by you or jointly with another, heretofore or hereafter developed until such time as you cease to be an employee of the Company hereunder, in the case of all of the foregoing only to the extent related to or arising out of your employment with the Company, developed on Company time or with Company property or related to the design, development, manufacture and sale of the Company's actual or proposed products and/or services, including, without limitation, those relating to neurostimulation technologies for use in innovative and proprietary applications in medicine (the "Company's Business"). You agree to execute all applications, assignments and other documents, and to take all other steps, necessary to vest in the Company the right, title and interest in and to the Intellectual Property and in and to any and all Intellectual Property obtainable therefor and/or related thereto in the United States and in foreign countries, and to take all actions as reasonably requested by the Company, at the Company's expense, to secure, maintain and enforce all rights of the Company in and to the Intellectual Property.

6. Restrictive Covenant. During your service as an employee to the Company and for the one year period following the termination of your employment with the Company for any reason, you shall not (nor shall you assist, cooperate with, or invest in or with) directly or indirectly, develop, own, manage, operate, control, invent or in any manner participate in the development, ownership, management, operation, control or invention of, or serve as a partner, employee, principal, agent, consultant or otherwise contract with, or have any financial interest in, or aid or assist any other person or entity that is directly involved in the Company's Business prior to termination of employment, other than passive investments in securities of publicly-traded companies totaling not more than 2% of any such company.

If a court of competent jurisdiction should declare this Section, or any provision hereof, unenforceable because of any unreasonable restriction of duration and/or activity, then you hereby acknowledge and agree that such court shall have the express authority to reform this Agreement to provide for reasonable restrictions and/or grant the Company such other relief, at law or in equity, reasonably necessary to protect the interests of the Company. You specifically acknowledge that a breach of this Section would cause the Company and its Members to suffer immediate and irreparable harm, which could not be remedied by the payment of money. In the event of a breach or threatened breach by you of any of the provisions of this Agreement, the Company shall be entitled to seek injunctive relief to end such breach, without the requirement to post bond, and the prevailing party shall be entitled to recover it's reasonable attorneys' fees and expenses. Nothing herein shall be construed as prohibiting the Company from pursuing any other remedies available to it for such breach or such threatened breach, including the recovery of damages.

In the event that (i) your employment is terminated by the Company, other than for Cause, or (ii) you terminate your employment for Good Reason, then you shall be entitled to receive, in equal monthly installments as salary continuation for the Severance Period, an amount equal to the sum of (A) your then current monthly base salary, and (B) the cost to you of your medical and/or dental coverage elected under COBRA (until you become eligible for comparable coverage from another employer), less applicable tax and other payroll withholding amounts.

For purposes of this Agreement, "Cause" shall mean (i) your gross negligence or willful misconduct in the performance of your duties to the Company; (ii) the conviction of, or plea of guilty or nolo contendere to, the commission of a felony by you; (iii) the commission by you of an act of fraud or embezzlement against the Company; or (iv) your breach of any material provision of this Agreement, subject to prior written notice to you and a reasonable cure period; "Good Reason" shall mean (i) a material adverse change in your position, duties, responsibilities, or status with the Company, (ii) a material breach by the Company of any provision of this Agreement, including without limitation, any reduction in your base salary other than in connection with an across the board salary reduction by the Company for senior management due to material cash flow problems; or (iii) without your consent, relocation of your principal business location by the Company outside of the northern New Jersey/New York metropolitan area; and "Severance Period" shall mean the period of time equal to one month for every two full months of your employment with the Company, but in no event to exceed six (6) months.

7. Representations and Warranties. You represent that your execution of this Agreement and your performance of your services hereunder do not and will not breach any other agreement, arrangements, understanding, obligation of confidentiality or employment relationship to which you are a party or by which you are bound and that during the term of this Agreement or any extensions thereof, you will not enter into any agreement, either written or oral, in conflict herewith.

8. Miscellaneous. This Agreement, together with the documents referred to herein, contains the entire agreement of the parties with respect to the subject matter hereof and supersedes and merges all prior written or oral agreements between us relating to the subject matter herein. This Agreement may be amended only by a written instrument signed by you and another officer of the Company authorized by the Board. Because of the personal nature of the services to be rendered by you under this Agreement, you may not assign this Agreement without the prior written consent of the Company. Any provision of this Agreement which is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof or affecting the validity or enforceability of such provision in any other jurisdiction.

9. Governing Law; Jurisdiction. This Agreement shall be governed in accordance with the law of the State of New Jersey. The parties hereto consent to the jurisdiction of the courts of the State of New Jersey for all disputes arising pursuant to this Agreement.

If you are in agreement with the foregoing terms, please indicate such agreement by signing the enclosed duplicate original of this letter in the space provided and returning it to the Company.

Very truly yours,

ELECTROCORE, LLC

By: /s/ Frank Amato
Name: Frank Amato
Title: Chief Executive Officer

ACCEPTED AND AGREED TO:

/s/ Glenn Vraniak
Glenn Vraniak

Exhibit 10.21

OFFICE LEASE

Between

150 Allen Road LLC, Landlord,

and

Electrocore LLC

Tenant

Dated: April 10, 2013

REFERENCE DATA

LANDLORD:	150 Allen Road LLC
LANDLORD'S ADDRESS	788 Morris Turnpike Short Hills, NJ
TENANT:	Electrocore LLC
TENANT'S ADDRESS:	
PREMISES:	150 Allen Road Suite 201, 2nd Floor Liberty Corner, NJ 07920
RENTABLE AREA OF PREMISES:	19,329
RENTABLE AREA OF BUILDING:	191,319
LEASE TERM:	Seven (7) years, nine (9) months
SCHEDULED COMMENCEMENT DATE:	July 1, 2013
BASE RENT:	See Article 3
BASE YEAR:	2013
TENANT'S PROPORTIONATE SHARE:	10.10%
SECURITY DEPOSIT:	$101,477.25
PERMITTED USES:	General Office use and lawful activities normally incidental thereto
OPTION:	One (1) five (5) year option

TABLE OF CONTENTS

OFFICE LEASE

THIS OFFICE LEASE (this "**Lease**") is made and entered into as of the 10th day of April, 2013, by and between 150 Allen Road LLC, a New Jersey corporation (hereinafter referred to as "**Landlord**"), and Electrocore, LLC a Delaware limited liability company (hereinafter referred to as "**Tenant**").

For and in consideration of the covenants herein contained, and upon the terms and conditions herein set forth, Landlord and Tenant hereby agree as follows:

ARTICLE 1

GRANT OF LEASE: PREMISES: BUILDING: PROJECT; AND COMMON AREAS

1.1 **Lease of Premises**. Landlord hereby leases to Tenant, and Tenant hereby leases from Landlord, the premises outlined in the floor plans attached hereto as Exhibit A and hereby made a part hereof (hereinafter referred to as the "**Premises**") on the 2nd floor of the building located at 150 Allen Road, Liberty Corner, New Jersey (hereinafter referred to as the "**Building**").

1.2 **The Building and the Office Complex**. The Building, which is located on land (the "**Land**") legally described in **Exhibit B** attached hereto and made a part hereof, is part of an office project known as "Allen Center". The term "**Office Complex**," as used in this Lease, shall mean (i) the Building, and the "Common Areas," as that term is defined in Section 1.3 below, (ii) the Land (which is improved with landscaping, open-use parking lots and other improvements) upon which the Building, and the Common Areas are located, and (iii) at Landlord's discretion, any additional real property, areas, buildings or other improvements added thereto pursuant to the terms of Section 1.4 of this Lease.

1.3 **Common Areas**. Tenant shall have the non-exclusive right to use in common with other tenants in the Office Complex, and subject to the rules and regulations referred to in Article 10 of this Lease, those portions of the Office Complex which are provided, from time to time, for use in common by Landlord, Tenant and any other tenants of the Office Complex, whether or not those areas are open to the general public, or which contain facilities or equipment used or usable in the operation of the Office Complex, even if access to such areas may be restricted to Landlord's personnel (such areas are collectively referred to herein as the "**Common Areas**"). The term "**Exterior Common Areas**," as used in this Lease, shall mean the portions of the Common Areas not located within the Building, and may include, without limitation, any parking facilities, fixtures, systems, signs, facilities, lakes, gardens, parks, or other landscaping used in connection with the Office Complex, and may include any city sidewalks adjacent to the Office Complex, pedestrian walkway system, whether above or below grade, park or other facilities open to the general public and roadways, sidewalks, walkways, parkways, driveways and landscape areas appurtenant to the Office Complex. The term "**Building Common Areas**," as used in this Lease, shall mean the portions of the Common Areas located within the Building and may include, without limitation, the common entrances, lobbies, atrium areas, restrooms, elevators, elevator shafts, stairways and accessways, loading docks, ramps, platforms, passageways, serviceways, common pipes, flues, stacks, pipe shafts, conduits, wires, equipment, loading and unloading areas, machine rooms, fan rooms, janitors' closets, electrical closets, telephone closets and trash areas servicing the Building. The manner in which the Common Areas are maintained and operated shall be at the sole discretion of Landlord.

1.4 **Landlord's Use and Operation of the Building, Project, and Common Areas**. Landlord reserves the right from time to time without notice to Tenant (i) to close temporarily any of the Common Areas; (ii) to restrict Tenant's access to any Common Areas not open to all tenants; (iii) to make changes to the Common Areas, including, without limitation, changes in the location, size, shape and number of street entrances, driveways, ramps, entrances, exits, passages, stairways and other ingress and egress, direction of traffic, landscaped areas, loading and unloading areas, and walkways; (iv) to expand the Building; (v) to add additional buildings and

improvements to the Common Areas; (vi) to remove buildings and improvements from the Common Areas; (vii) to designate land outside the Office Complex to be part of the Office Complex, and in connection with the improvement of such land to add additional buildings and common areas to the Office Complex; (viii) to use the Common Areas while engaged in making improvements, repairs or alterations to the Office Complex or to any adjacent land, or any portion thereof; and (ix) to do and perform such other acts and make such other changes in, to or with respect to the Office Complex, Common Areas and Building or the expansion thereof as Landlord may, in the exercise of sound business judgment, deem to be appropriate, provided that none of the foregoing shall impair Tenant's ability to operate its business.

ARTICLE 2

TERM; POSSESSION

2.1 **Term**. The term of this Lease (hereinafter referred to as the "**Term**") shall commence on July 1, 2013 (the "**Commencement Date**"), and expiring ninety three (93) months thereafter (hereinafter, as the same may be adjusted as hereinafter provided, referred to as the "**Expiration Date**"), unless sooner terminated as provided herein. Within fifteen (15) days after the Commencement Date, Landlord and Tenant shall execute a Confirmation of Commencement Date in the form attached hereto as **Exhibit F**.

2.2 **Early Possession**. If Tenant desires to take possession of all or any part of the Premises prior to the date set forth above as the Commencement Date and if Landlord authorizes Tenant to do so, the Commencement Date shall not be advanced to the date upon which Tenant so takes possession and the Expiration Date shall not be affected by such early occupancy. At any time within thirty (30) days prior to the Commencement Date (the "**Access Period**"), Tenant shall have the right to access the Building and the Premises for the purpose of installing furniture and equipment within the Premises provided such installation shall not materially or unreasonably interfere with any work being performed in the Building and/or the Premises by or on behalf of Landlord.

2.3 **Failure to Deliver Possession**. If Landlord is unable to deliver possession of the Premises to Tenant on or before November 1, 2013 (the "**Outside Completion Date**"), because work to be performed by Landlord under any Work Letter (as hereinafter defined) has not been substantially completed (as that term is defined in the Work Letter), or for any other reason, Rent (as hereafter defined) shall be abated from the Commencement Date until the delivery by Landlord to Tenant of possession of the Premises and Tenant shall have the right to terminate this Lease and upon such termination, Tenant shall have no further obligations hereunder. If Landlord is to perform work in the Premises pursuant to a work letter attached hereto as **Exhibit E** and by this reference made a part hereof (hereinafter referred to as the "**Work Letter**") and is unable to deliver possession of the Premises to Tenant on or before the Outside Completion Date because such work has not been substantially completed, the Commencement Date shall be deferred to the date on which such work is substantially completed. In the event, however, that substantial completion of such work has been delayed by reason of the occurrence of one or more acts constituting Tenant Delay or Force Majeure Delay (as defined in the Work Letter), the date of substantial completion thereof shall be deemed to be the date on which such work would have been substantially completed but for such Tenant Delay or Force Majeure Delay. If the Commencement Date is deferred pursuant to this paragraph, the Expiration Date shall be deferred so that the Term will expire on the last day of the calendar month in which the 93rd anniversary of said deferred Commencement Date occurs. Neither the Commencement Date nor the Expiration Date shall be affected if the Premises are not ready for occupancy because Tenant is performing work in the Premises, pursuant to the Work Letter or otherwise.

2.4 **Lease Year Defined**. As used in this Lease, the term "**Lease Year**" shall mean (i) if the Commencement Date is the first day of a calendar month, the twelve (12) month period commencing on the Commencement Date or (ii) if the Commencement Date is not the first day of a calendar month, the period commencing on the Commencement Date and ending on the last day of the twelfth (l2th) full calendar month of the Term, and, in either case, each succeeding twelve (12) month period thereafter which falls in whole or in part during the Term.

ARTICLE 3

BASE RENT

3.1 **Base Rent**. Tenant shall pay an annual base rent (hereinafter referred to as "**Base Rent**") to Landlord for the Premises, payable in equal monthly installments (hereinafter referred to as "**Monthly Base Rent**"), in advance on the first day of the Term and on the first day of each calendar month thereafter of the Term, and at the same rate for fractions of a month if the Term begins on any day except the first day of a calendar month or ends on any day except the last day of a calendar month pursuant to the following schedule:

Start Date	End Date	Per Sq. Ft. Amount	Annual Base Rent	Monthly Base Rent
July 1, 2013	June 30, 2014	*$ 21.00	$ 405,909.00	$ 33,825.75
July 1, 2014	June 30, 2015	$ 21.50	$ 415,573.50	$ 34,631.13
July 1, 2015	June 30, 2016	$ 22.00	$ 425,238.00	$ 35,436.50
July 1, 2016	June 30, 2017	$ 22.50	$ 434,902.50	$ 36,241.88
July 1, 2017	June 30, 2018	$ 23.00	$ 444,567.00	$ 37,047.25
July 1, 2018	June 30, 2019	$ 23.50	$ 454,231.50	$ 37,852.63
July 1, 2019	June 30, 2020	$ 24.00	$ 463,896.00	$ 38,658.00
July 1, 2020	March 31, 2021	$ 24.50	$ 473,560.50	$ 39,463.38

* Notwithstanding anything to the contrary contained herein, provided that Tenant is not in Default hereunder, Tenant shall have no obligation to pay Base Rent during the first nine (9) months after the Commencement Date, but will remain responsible for any Additional Rent during this period.

3.2 **Manner of Payment**. Base Rent, Rent Adjustments (as hereinafter defined), Rent Adjustment Deposits (as hereinafter defined) and all other amounts becoming due from Tenant to Landlord hereunder (hereinafter collectively referred to as "**Rent**") shall be paid in lawful money of the United States to Landlord at the office of Landlord, or as otherwise designated from time to time by written notice from Landlord to Tenant. The payment of Rent hereunder is independent of each and every other covenant and agreement contained in this Lease, and Rent shall be paid without any setoff, abatement, counterclaim or deduction whatsoever except as may be expressly provided herein.

3.3 **Payment Due at Lease Execution**. Subject to Section 3.2 above, Tenant shall pay the first month's payable Base Rent of Thirty three thousand eighty hundred twenty five dollars and seventy five cents ($33,825.75) as well as the Security Deposit pursuant to Section 27.1 upon Lease execution. Provided that Tenant is not in Default hereunder and receives the Base Rent abatement provided in Section 3.1 above, the first month's payable Base Rent paid pursuant to this Section 3.3 shall be applied to the tenth (10th) month's Base Rent payment.

3.4 **Late Payment**. In the event payment is not received within five (5) calendar days from the applicable monthly due date, Landlord reserves the right to impose a late payment fee of five percent (5%) of the outstanding balance which shall be added to the amount due and owing to Landlord. The assessment of late charges by Landlord or the payment of same by Tenant shall not in any manner prejudice or diminish the rights of Landlord as set forth in this Lease. Imposition of a late payment fee is solely at Landlord's option and failure by Landlord to exercise this option does not waive Landlord's right to exercise this right at a future date.

ARTICLE 4

RENT ADJUSTMENTS

4.1 **Obligation to Pay Rent Adjustments**. In addition to paying Base Rent, Tenant shall also pay as additional rent the amounts determined in accordance with this Article 4 (hereinafter referred to as "**Rent Adjustments**").

4.2 **Definitions.** As used in this Lease,

(a) "**Adjustment Date**" shall mean the first day of the Term and each January 1 thereafter falling within the Term.

(b) "**Adjustment Year**" shall mean each calendar year during which an Adjustment Date falls.

(c) "**Expenses**" shall mean and include those costs and expenses paid or incurred by or on behalf of Landlord for owning, managing, operating, maintaining and repairing the Building, the Building Common Areas, the Exterior Common Areas, the Land, and the personal property used in conjunction therewith (the Building and the Land hereinafter collectively referred to as the "**Real Property**" and the Real Property and such personalty hereinafter collectively referred to as the "**Project**"), including, without limitation, the following costs and expenses:

(i) wages and salaries of all persons engaged in the operation, management, maintenance or repair of the Project, and fringe benefits, including social security taxes, unemployment insurance taxes, cost for providing coverage for disability benefits, cost of any pensions, hospitalization, welfare or retirement plans, and any other similar expenses incurred under the provisions of any collective bargaining agreement, or any other cost or expense which Landlord pays or incurs to provide benefits for employees so engaged in the operation, management, maintenance or repair of the Project;

(ii) the cost of security and security devices and systems;

(iii) the cost of snow, ice and trash removal;

(iv) the cost of cleaning and sweeping;

(v) the cost of parking area repair, restoration and maintenance, including but not limited to resurfacing, repainting, restriping, relamping and cleaning;

(vi) the cost of interior and exterior painting, decorating and landscaping, including without limitation planting and replacing decorations, flowers, lawn care and landscaping and the replacement of wall and floor coverings, ceiling tiles and fixtures in the Common Areas;

(vii) the cost of roof repair;

(viii) the cost of maintenance, repair and replacement of utility systems, elevators, escalators and other building systems and improvements not otherwise referred to in this Section 4.2(c), but including replacement only to the extent of replacement of parts and components incidental to the maintenance and repair thereof or if the cost thereof would be includable in Expenses pursuant to subsection (A) below of this Section 4.2(c), and not to the extent replacement of any item would constitute a capital improvement or a capital expenditure which is excluded from Expenses as hereinafter provided;

(ix) the cost of window cleaning;

(x) the cost of janitorial service and trash removal;

(xi) the cost of insurance, including, but not limited to, fire, extended coverage, all risk, liability, workmen's compensation, elevator and any other insurance carried by Landlord and applicable to the Project;

(xii) the cost of uniforms, supplies and sundries;

(xiii) all payments made pursuant to the property management agreement with respect to the Project (including the cost of any management fee and the fair rental value of any office space provided to the manager thereunder);

(xiv) the cost of sales or use taxes on supplies and services;

(xv) the charges of any independent contractor who, under contract with Landlord or its representatives, does any of the work of operating, managing, maintaining or repairing the Project;

(xvi) legal, accounting and consulting expenses, including, but not limited to, such expenses that relate to seeking or obtaining reductions in and refunds of real estate taxes;

(xvii) the cost of tools and equipment;

(xviii) the cost of licenses, certificates, permits and inspections and the cost of contesting the validity or applicability of any governmental enactments or exactions which may constitute Expenses;

(xix) payments under any equipment rental agreements;

(xx) costs, fees, charges or assessments imposed by any federal, state or local government for fire and police protection, trash removal, community services, or other services not funded through taxes;

(xxi) sums levied, assessed, imposed or required to be paid to any governmental authority on account of the parking of motor vehicles, or reduction or control of motor vehicle traffic, or motor vehicle pollution;

(xxii) any other expense or charge, whether or not hereinbefore mentioned, which, in accordance with generally accepted accounting and management principles, would be considered an expense of owning, managing, operating, maintaining or repairing the Project, except as hereinafter provided.

Expenses shall not include: (1) costs or other items included within the meaning of the terms "**Taxes**" or "**Utility Expenses**" (as hereinafter defined); (2) costs of alterations of the premises of tenants of the Building; (3) costs of capital improvements to the Building (except as specifically provided in this Section 4.2(c)); (4) depreciation charges; (5) interest and principal payments on mortgages; (6) ground rental payments; (7) real estate brokerage and leasing

commissions and other expenses incurred in leasing or in procuring tenants; (8) any expenditures for services which are provided to one or more tenants but are not available generally to all office tenants; (9) any expenditures for which Landlord has been reimbursed (other than pursuant to this Article 4 or provisions in other leases requiring the tenants thereunder to pay a share of expenses associated with the Building), except as hereinafter provided; (10) costs to correct any defects in the original construction of the Building or to remedy violations of laws and/or requirements of public authorities that arise by reason of Landlord's negligent or willful failure to construct, maintain or operate the Building or any part thereof in compliance with such laws and/or requirements of public authorities, other than such costs incurred in order to achieve compliance with new laws and/or requirements of public authorities; (11) payments to affiliates of Landlord (excluding property management fees), but only to the extent that they exceed market charges; (12) to the extent any costs includible in Expenses are incurred with respect to both the Building and other properties, there shall be excluded from Expenses a fair and reasonable percentage thereof which is properly allocable to such other properties; (13) the cost of any judgment, settlement, or arbitration award resulting from any liability of Landlord which is the result of negligence, willful misconduct or fraud (other than a liability for amounts otherwise includible in Expenses hereunder) and all expenses incurred in connection therewith; (14) costs relating to withdrawal liability or unfunded pension liability under the Multi-Employer Pension Plan Act or similar law; (15) costs incurred by Landlord which result from Landlord's or other tenant's breach of a lease, Landlord's negligence or willful misconduct or Landlord's indemnification of any tenant of the Building pursuant to the provisions of such tenant's lease; (16) expenditures for repairing and/or replacing any defect in any work performed by Landlord; (17) any payments or credits actually received by Landlord for recyclable materials and waste paper for a particular operational year within the term shall be deducted from Expenses for such basic year.

Notwithstanding anything contained in this clause (c) to the contrary:

(A) The cost of any capital improvements to the Building made after the date of this Lease (i) which are intended to reduce Expenses or Utility Expenses, or (ii) which are required under any governmental laws, regulations or ordinances which were not applicable to the Building at the time it was constructed, which costs shall be amortized over such reasonable period as Landlord shall determine, together with interest on the unamortized cost of any such improvements (at the prevailing construction loan rate available to Landlord on the date the cost of such improvements was incurred) shall be included in Expenses;

(B) If the Building is occupied by tenants at a rate less than 95% of total building occupancy during all or a portion of any Adjustment Year, or the Base Year, as the case may be, or if during all or a portion of any Adjustment Year, or the Base Year, as the case may be, Landlord is not furnishing to any tenant or tenants any particular service, the cost of which, if furnished by Landlord, would be included in Expenses, then Landlord shall make an adjustment for such year of components of Expenses and the amounts thereof which may vary depending upon the occupancy level of the Building or the number of tenants using the service to an amount that reflects 95% occupancy. Any such adjustments shall be deemed costs and expenses paid or incurred by Landlord and included in Expenses for such year, as if the Building had been 95% occupied during the entire Adjustment Year, or the Base Year, as the case may be, Landlord had furnished such service at its expense to all tenants for the entire Adjustment Year, or the Base Year, as the case may be, and Landlord had paid or incurred such costs and expenses for such year;

(C) If any item of Expenses, although paid or incurred in one year, relates to more than one calendar year, at the option of Landlord, such item may be allocated proportionately among such related calendar years; and

(d) "**Taxes**" shall mean real estate taxes, property taxes, general or special assessments; sewer and water rents, rates and charges, transit and transit district taxes, city, county, village and school district taxes, taxes based upon the receipt of rent, and any other federal, state or local governmental charge, whether general, special, ordinary or extraordinary (but not including income or franchise transfer, gift, excise, capital stock, estate, succession and inheritance taxes or any other taxes imposed upon or measured by Landlord's income or profits, except as provided herein or penalties or interest for late payment of Taxes), which may now or hereafter be levied, assessed or imposed against the Real Property.

Notwithstanding anything contained in this clause (d) to the contrary:

(i) If at any time the method of taxation then prevailing is altered so that any new or additional tax, assessment, levy, imposition or charge or any part thereof is imposed upon Landlord in place or partly in place of any such Taxes or contemplated increase therein, or in addition to Taxes, and is measured by or is based in whole or in part upon the Real Property or the rents or other income therefrom, then all such new taxes, assessments, levies, impositions or charges or part thereof, to the extent that they are so measured or based, shall be included in Taxes levied, assessed or imposed against the Real Property to the extent that such items would be payable if the Real Property were the only property of Landlord subject thereto and the income received by Landlord from the Real Property were the only income of Landlord.

(ii) Notwithstanding the year for which any such taxes or assessments are levied, (A) in the case of taxes or special assessments which may be paid in installments, the amount of each installment, plus any interest payable thereon, paid during a calendar year shall be included in Taxes for that year and (B) if any taxes or assessments payable during any calendar year shall be computed with respect to a period in excess of twelve (12) calendar months, then taxes or assessments applicable to the excess period shall be included in Taxes for that year. Except as provided in the preceding sentence, all references to Taxes "for" a particular year shall be deemed to refer to taxes levied, assessed or otherwise imposed for such year without regard to when such taxes are payable.

(iii) Taxes shall also include any personal property taxes (attributable to the calendar year in which paid) imposed upon the furniture, fixtures, machinery, equipment, apparatus, systems and appurtenances which are components of the Project, except to the extent that such personal property involves a capital improvement expenditure of the Project.

If Tenant overpays, or if taxes are later reduced due to an appeal or otherwise, Tenant shall be entitled to a refund, notwithstanding the termination of this Lease. This Section shall survive termination or earlier expiration of the Lease.

(e) "**Rentable Area of the Building**" One hundred ninety one thousand three hundred nineteen (191,319) square feet.

(f) "**Rentable Area of the Premises**" The Rentable Area of the Premises shall be deemed to be Nineteen thousand three hundred twenty nine (19,329) square feet.

(g) "**Tenant's Proportionate Share**" shall mean 10.10%, which is the percentage obtained by dividing the Rentable Area of the Premises by the Rentable Area of the Building.

(h) "**Utility Expenses**" shall mean the cost and expenses paid or incurred by or on behalf of Landlord for all electricity, steam, water, sewer, fuel, heating, lighting, air-conditioning and utilities used at the Real Property, including without limitation, any fuel surcharges and adjustments thereto and the allocable share of such costs and expenses used at the Office Complex.

Notwithstanding anything contained in this clause (h) to the contrary:

(A) If the Building is occupied by tenants at a rate less than 95% of total building occupancy during all or a portion of any Adjustment Year, or the Base Year, as the case may be, or if during all or a portion of any Adjustment Year, or the Base Year, as the case may be, Landlord is not furnishing to any tenant or tenants any particular service, the cost of which, if furnished by Landlord, would be included in Utility Expenses, then Landlord shall reasonably and equitably adjust its computation for such year of components of Utility Expenses and the amounts thereof which may vary depending upon the occupancy level of the Building or the number of tenants using the service to an amount that reflects 95% occupancy;

(B) If any item of Utility Expenses, although paid or incurred in one year, relates to more than one calendar year, at the option of Landlord, such item may be allocated proportionately among such-related calendar years; and.

(i) "**Rent Adjustments**" shall mean all amounts determined pursuant to this Article 4, including all amounts payable by Tenant to Landlord on account thereof.

4.3 **Computation of Rent Adjustments**. Tenant shall pay Rent Adjustments for each Adjustment Year determined as hereinafter set forth. Rent Adjustments payable by Tenant with respect to each Adjustment Year during which an Adjustment Date falls shall include the following amounts:

(a) the product of Tenant's Proportionate Share multiplied by the amount, if any, by which Taxes for such Adjustment Year exceeds Taxes for calendar year 2013 (the "**Base Year**") (said product being hereinafter referred to as the "**Tax Adjustment**"); plus

(b) the product of Tenant's Proportionate Share multiplied by the amount, if any, by which Expenses for such Adjustment Year exceed Expenses for the Base Year (said product being hereinafter referred to as the "**Expense Adjustment**"); plus

(c) the product of Tenant's Proportionate Share multiplied by the amount, if any, by which Utility Expenses for such Adjustment Year exceed Utility Expenses for the Base Year (said product being hereinafter referred to as the "**Utility Expense Adjustment**").

In determining the Tax Adjustment, Expense Adjustment and Utility Expense Adjustment for any given Adjustment Year, if less than the entire Adjustment Year shall fall within the Term, then for purposes of comparison, the level of Taxes, Expenses and Utility Expenses for the Base Year shall be reduced ratably based upon the relative number of days in the two periods being compared. Tenant agrees and acknowledges that Landlord has made no representation, warranty or guaranty relating to the amount of Taxes, Expenses and Utility Expenses. Tenant has had an opportunity to consult with Landlord with respect to the Taxes, Expenses and Utility Expenses projected for the operation of the Building but has not relied upon any statements or representations of Landlord or of any agent or affiliate of Landlord in regard thereto in executing this Lease and in agreeing to perform the terms and covenants hereof and shall make no claim against Landlord based thereon. Notwithstanding anything to the contrary herein contained, in no event shall the Tax Adjustment, Expense Adjustment or Utility Expense Adjustment for any Adjustment Year be negative.

4.4 **Payments of Rent Adjustments; Projections**. Tenant shall pay Rent Adjustments to Landlord in the manner hereinafter provided.

(a) **Tax Adjustment, Expense Adjustment and Utility Expense Adjustment**. Tenant shall make payments on account of Tax Adjustment, Expense Adjustment and Utility Expense Adjustment (the aggregate of such payments with respect to any Adjustment Year being hereinafter referred to as the "**Rent Adjustment Deposit**") as follows:

(i) Prior to each Adjustment Date and from time to time during the Adjustment Year in which such Adjustment Date falls, Landlord may deliver to Tenant a written notice or notices (each such notice being hereinafter referred to as a "**Projection Notice**") setting forth (A) Landlord's reasonable estimates, forecasts or projections (collectively, the "**Projections**") of any or all of Taxes, Expenses and Utility Expenses for such Adjustment Year and (B) Tenant's Rent Adjustment Deposits with respect to the Tax Adjustment, Expense Adjustment and Utility Expense Adjustment components of Rent Adjustments for such Adjustment Year based upon the Projections. Landlord's budgets of Expenses and Utility Expenses and the Projections based thereon may assume full occupancy of the Building and that Landlord will furnish all services included in Expenses and Utility Expenses to all tenants of the Building.

(ii) Tenant shall commence payments of monthly installments of Rent Adjustment Deposits on the first day of the first calendar month after the first twelve (12) months of the Term and during the Term following Landlord's delivery of the first Projection Notice hereunder. On such date, and on or before the first day of each calendar month thereafter of the Adjustment Year covered by such Projection Notice, Tenant shall pay to Landlord one twelfth 1/12 of the Rent Adjustment Deposits shown in the Projection Notice. Within fifteen (15) days following Landlord's delivery of a Projection Notice for an Adjustment Year in progress, Tenant also shall pay Landlord a lump sum equal to the Rent Adjustment Deposits shown in 'the Projection Notice less the sum of (A) any previous payments on account of Rent Adjustment Deposits made with respect to such Adjustment Year and (B) monthly installments on account of Rent Adjustment Deposits due for the remainder of such Adjustment Year. Until such time as Landlord furnishes a Projection Notice for an Adjustment Year, Tenant shall continue to pay monthly installments of Rent Adjustment Deposits in the amount shown by the most recent Projection Notice or, if the Tax, Expense and Utility Expense Adjustment for the Adjustment Year covered by such Projection Notice has been determined, one twelfth (1/12) of such Tax, Expense and Utility Expense Adjustment.

4.5 **Readjustments**. The following readjustments shall be made by Landlord and Tenant for Expense Adjustment, Utility Expense Adjustment and Tax Adjustments:

(a) Following the end of each Adjustment Year and after Landlord has determined the actual amount of Expenses to be used in calculating the Expense Adjustment for such Adjustment Year, Landlord shall notify Tenant in writing (any such notice hereinafter referred to as "**Landlord's Expense Statement**") of such Expenses and Tenant's Expense Adjustment for such Adjustment Year. If the Expense Adjustment owed for such Adjustment Year exceeds the Expense Adjustment component of the Rent Adjustment Deposits paid by Tenant during such Adjustment Year, then Tenant, within thirty (30) days after the date of Landlord's Expense Statement, shall pay to Landlord an amount equal to the excess of the Expense Adjustment over the Expense Adjustment component of the Rent Adjustment Deposits paid by Tenant during such Adjustment Year. If the Expense Adjustment component of the Rent Adjustment Deposits paid by Tenant during such Adjustment Year exceeds the Expense Adjustment owed for such Adjustment Year, then Landlord shall credit such excess to Rent payable after the date of Landlord's Expense Statement, or, at its option, may credit such excess to any Rent theretofore due and

owing, until such excess has been exhausted. If this Lease expires or is terminated prior to full application of such excess, Landlord shall pay to Tenant the balance thereof not theretofore applied against Rent and not reasonably required for payment of Rent for the Adjustment Year in which this Lease expires, subject to Tenant's obligations under Section 4.8 hereof, provided Tenant has vacated the Premises and otherwise has surrendered the Premises to Landlord in accordance with this Lease and Tenant is not then in Default under this Lease.

(b) Following the end of each Adjustment Year and after Landlord has determined the actual amount of Utility Expenses to be used in calculating the Utility Expense Adjustment for such Adjustment Year, Landlord shall notify Tenant in writing (any such notice hereinafter referred to as "**Landlord's Utility Expense Statement**") of such Utility Expenses and Tenant's Utility Expense Adjustment for such Adjustment Year. If the Utility Expense Adjustment owed for such Adjustment Year exceeds the Utility Expense Adjustment component of the Rent Adjustment Deposits paid by Tenant during such Adjustment Year, then Tenant, within thirty (30) days after the date of Landlord's Utility Expense Statement, shall pay to Landlord an amount equal to the excess of the Utility Expense Adjustment over the Utility Expense Adjustment component of the Rent Adjustment Deposits paid by Tenant during such Adjustment Year. If the Utility Expense Adjustment component of the Rent Adjustment Deposits paid by Tenant during such Adjustment Year exceeds the Utility Expense Adjustment owed for such Adjustment Year, then Landlord shall credit such excess to Rent payable after the date of Landlord's Utility Expense Statement, or, at its option, may credit such excess to any Rent theretofore due and owing, until such excess has been exhausted. If this Lease expires or is terminated prior to full application of such excess, Landlord shall pay to Tenant the balance thereof not theretofore applied against Rent and not reasonably required for payment of Rent for the Adjustment Year in which this Lease expires, subject to Tenant's obligations under Section 4.8 hereof, provided Tenant has vacated the Premises and otherwise has surrendered the Premises to Landlord in accordance with this Lease and Tenant is not then in Default under this Lease.

(c) Following the end of each Adjustment Year and after Landlord has determined the actual amount of Taxes to be used in calculating the Tax Adjustment for such Adjustment Year, Landlord shall notify Tenant in writing (any such notice hereinafter referred to as "**Landlord's Tax Statement**") of such Taxes for such Adjustment Year. If the Tax Adjustment owed for such Adjustment Year exceeds the Tax Adjustment component of the Rent Adjustment Deposits paid by Tenant during such Adjustment Year, then Tenant, within thirty (30) days after the date of Landlord's Tax Statement, shall pay to Landlord an amount equal to the excess of the Tax Adjustment over the Tax Adjustment component of the Rent Adjustment Deposits paid by Tenant during such Adjustment Year. If the Tax Adjustment component of the Rent Adjustment Deposits paid by Tenant during such Adjustment Year exceeds the Tax Adjustment owed for such Adjustment Year, then Landlord shall credit such excess to Rent payable after the date of Landlord's Tax Statement, or, at its option, may credit such excess to any Rent theretofore due and owing, until such excess has been exhausted. If this Lease expires or is terminated prior to full application of such excess, Landlord shall pay to Tenant the balance thereof not theretofore applied against Rent and not reasonably required for payment of Rent for the Adjustment Year in which this Lease expires, subject to Tenant's obligations under Section 4.8 hereof, provided Tenant has vacated the Premises and otherwise has surrendered the Premises to Landlord in accordance with this Lease and Tenant is not then in Default under this Lease.

No interest or penalties shall accrue on any amounts which Landlord is obligated to credit or pay to Tenant pursuant to this Section.

4.6 **Books and Records**. Landlord shall maintain books and records showing Taxes, Expenses and Utility Expenses in accordance with sound accounting and management practices consistently applied. Tenant or its representative shall have the right to examine Landlord's books and records showing Taxes, Expenses and Utility Expenses upon reasonable prior notice and during normal business hours at any time within ninety (90)

days following the furnishing by Landlord to Tenant of Landlord's Expense Statement, Landlord's Utility Expense Statement or Landlord's Tax Statement, as the case may be, provided for in Section 4.5. Landlord will consider a reasonable extension if requested in writing by Tenant. Unless Tenant takes written exception to any item within ninety (90) days after the furnishing of Landlord's Expense Statement, Landlord's Utility Expense Statement or Landlord's Tax Statement, as the case may be, containing such item, such Landlord's Statement shall be considered final and accepted by Tenant.

4.7 **Audit Procedures**. If Tenant notifies Landlord within such ninety (90) day period that Tenant disputes any specific item or items in any Landlord's Expense Statement, Landlord's Utility Expense Statement or Landlord's Tax Statement, as the case may be, and such dispute is not resolved between Landlord and Tenant within thirty (30) days after the date such notice is given by Tenant, either party, during the fifteen (15) day period following the expiration of the thirty (30) day period commencing on the date such notice is given, may refer such disputed item or items for determination to an independent certified public accountant selected by such party and approved by the other party, which approval shall not be withheld unreasonably, and the determination of such accountant shall be final, conclusive and binding upon Landlord and Tenant. Tenant agrees to pay all costs involved in such determination, except in the case of Tax Adjustment, Expense Adjustment and Utility Expense Adjustment for any Adjustment Year where it is determined that Landlord has overcharged Tenant for Tax Adjustment, Expense Adjustment and Utility Expense Adjustment for such Adjustment Yearly more than five (5%), in which case Landlord shall pay such costs.

4.8 **Proration and Survival**. With respect to any Adjustment Year which does not fall entirely within the Term, Tenant shall be obligated to pay as Expense Adjustment, Utility Expense Adjustment and Tax Adjustment for such Adjustment Year only a pro rata share of Expense Adjustment, Utility Expense Adjustment and Tax Adjustment as hereinabove determined, based upon the number of days of the Term falling within the Adjustment Year. Following expiration or termination of this Lease, Tenant shall pay any Rent Adjustments due to Landlord within fifteen (15) days after the date of each Landlord's Statement sent to Tenant. Without limitation of other obligations of Tenant which shall survive the expiration of the Term, the obligation of Tenant to pay Rent Adjustments provided for in this Article 4 accruing during the Term shall survive the expiration or termination of this Lease.

4.9 **No Decrease In Base Rent**. In no event shall any Rent Adjustments result in a decrease of Base Rent payable hereunder.

4.10 **Additional Rent**. All amounts payable by Tenant as or on account of Rent Adjustments shall be deemed to be additional rent ("**Additional Rent**") becoming due under this Lease.

ARTICLE 5

USE OF PREMISES

Tenant shall use and occupy the Premises for general office purposes and lawful activities normally incidental thereto and for no other use or purpose. Tenant will be solely responsible for any permits, approvals etc. from the municipality for its particular use for the Premises. Landlord accepts no responsibility for delays, and/or any denials from the municipality and Tenant agrees to indemnify and hold Landlord harmless from any liability arising there from.

ARTICLE 6

SERVICES

6.1 **Services Provided**. Landlord shall furnish the following services:

(a) Air conditioning and heating when necessary to provide a temperature condition required for comfortable occupancy of the Premises under normal business operations, daily from 8:00 a.m. to 6:00 p.m. (Saturdays 8:00 a.m. to 1:00 p.m.), Sundays and public holidays excepted as described below. Without limitation of the foregoing, the term public holidays, wherever employed in this Lease, shall include New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving and Christmas. Whenever Tenant's use or occupation of the Premises exceeds the design loads for the system providing heating and air conditioning, or Tenant uses lighting or heat-generating machines or equipment which cumulatively exceed such design loads, or which affect the temperature otherwise maintained by the heating, ventilating and air conditioning system in the Premises or Building, Landlord may temper such excess loads by installing supplementary heat or air conditioning units in the Premises or elsewhere where necessary, and the cost of such units and the expense of installation, including, without limitation, the cost of preparing working drawings and specifications, shall be paid by Tenant as additional rent within ten (10) days after Landlord's demand therefore. The expense resulting from the operation and maintenance of any such supplementary heat or air conditioning units shall be paid by Tenant to Landlord as additional rent at rates fixed by Landlord. Landlord's agreements hereunder are subject to voluntary and mandatory presidential and governmental restrictions on energy use.

Landlord shall operate or cause the operation of the heating, ventilating and air-conditioning ("**HVAC**") system in the Building and serving the Premises so that such system is continually capable of providing service sufficient to maintain temperatures within the Premises (and the interior Common Areas) between 68° Fahrenheit and 76° Fahrenheit. More specifically, the system will be capable of: Cooling Season - maintaining maximum temperature of 76° Fahrenheit (dry bulb) and fifty percent (50%) relative humidity, when the outside temperature is 95° Fahrenheit (dry bulb) and 75° Fahrenheit (wet bulb). Heating Season - maintaining not less than 68° Fahrenheit (dry bulb), when the outdoor temperate is 0° Fahrenheit and prevailing wind velocity is 15 miles per hour.

(b) Domestic water in common with other tenants for drinking, lavatory and toilet purposes drawn through fixtures installed by Landlord, or by Tenant in the Premises with Landlord's written consent, and hot water in common with other tenants for lavatory purposes from regular Building supply. Tenant shall pay Landlord as additional rent at Landlord's scheduled rates for domestic water and hot water furnished for any other purpose. Tenant shall not waste or permit the waste of water.

(c) Janitorial and cleaning service in accordance with the schedule attached hereto as **Exhibit D**. Tenant shall not provide or use any other janitorial or cleaning services without Landlord's consent, and then only subject to supervision of Landlord and at Tenant's sale responsibility and by a janitor, cleaning contractor or employees at all times satisfactory to Landlord.

(d) Passenger elevator service in common with Landlord and other persons, daily from 8:00 a.m. to 6:00 p.m. (Saturdays 9:00 a.m. to 1:00 p.m.), Sundays and public holidays excepted. Such normal elevator service, if furnished at other times, shall be optional with Landlord and shall never be deemed a continuing obligation. Landlord, however, shall provide limited passenger elevator service daily at all times when such normal passenger service is not furnished.

(e) Onsite parking, at no cost to Tenant. The number of parking spaces at the Building, which shall be available to Tenant on a non-exclusive basis, shall be equal to not less than four (4) parking spaces per thousand (1,000) square feet of the total Rentable Area of the Premises.

(f) In the event Tenant requires air conditioning or heating during hours other than as set forth hereinabove, Tenant shall notify Landlord of such requirement as early as practically possible and Landlord shall endeavor in good faith to provide or arrange for such additional service. It is agreed that Tenant shall pay to Landlord the cost of said overtime usage as contemplated herein upon invoice from

Landlord to Tenant at the rate of $75.00 per hour for each zone during the first year of the Term hereof, and thereafter said hourly charge shall be increased annually by the cost to Landlord of the increase in electric and gas utility rates for the Building operation, if any.

(g) Tenant Electric costs will be computed provided by sub-meter with no mark-up at the same rate as Landlord's actual costs or direct meter. Electric charges shall be paid by Tenant within thirty (30) days after billing by Landlord.

A default in payment of such bills shall be a default in payment of Rent. Landlord shall not in any way be liable or responsible to Tenant for any loss, damage, expenses and causes beyond Landlord's control, which Tenant may sustain or incur if either the quantity or character of electric service is changed.

(h) The electricity used for the operation of any special air conditioning systems which may be required for data processing equipment or for other special equipment or machinery installed by Tenant, included in the submetered electric billed to Tenant. Tenant shall make no alterations or additions to the electric equipment or appliances without the prior written consent of Landlord in each instance. Tenant also agrees to purchase from Landlord or its agents all lamps, bulbs, ballasts and starters used in the Premises during the Term. Tenant covenants and agrees that at all times its use of electric current shall never exceed the capacity of the feeders to the Building or the risers or wiring installed thereon.

(i) Landlord may provide such extra or additional services as it is reasonably possible for Landlord to provide, and as Tenant may request from time to time, within a reasonable period after the time such extra or additional services are requested. Tenant shall pay, for such extra or additional services, an amount equal to Landlord's actual cost incurred in providing such additional services, such amount to be considered additional rent hereunder. All charges for such extra or additional services shall be due and payable at the same time as the installment of Base Rent with which they are billed, or if billed separately, shall be due and payable within ten (10) days after such billing. Any such billings for extra or additional services shall include an itemization of the extra or additional services rendered, and the charge for each such service.

Landlord shall keep and maintain the Common Areas in good condition and repair, as well as in a clean and safe condition and in compliance with all applicable laws.

6.2 **Failure to Pay for Services**. Failure by Tenant to pay Landlord's proper charges for water, electric or other services promptly shall give Landlord, upon not less than thirty (30) days' notice to Tenant (provide such notice provides in at least 12 point font, bold and all capital letters on the first page of such notice "THIS NOTICE IS BEING PROVIDED TO TENANT IN CONNECTION WITH TENANT'S FAILURE TO PAY LANDLORD'S CHARGES FOR WATER OR OTHER SERVICES AND FAILURE OF TENANT TO MAKE SUCH PAYMENT WILL RESULT IN LANDLORD'S POSSIBLE DISCONTINUATION OF SUCH SERVICES"), the right to discontinue furnishing the services, and no such discontinuance shall be deemed an eviction or disturbance of Tenant's use of the Premises or render Landlord liable for damages or relieve Tenant from performance of Tenant's obligations under this Lease. If Landlord fails to provide such notice as is required pursuant to this Section 6.2, Landlord may not discontinue or cause the discontinuation of any of Tenant's services.

6.3 **Failure to Furnish Services**. Notwithstanding anything to the contrary contained in the Lease, if the services Landlord is obligated to provide in accordance with the provisions of this Lease with the result that the Premises become untenantable for the use specified in Article 5, and such interruption persist for ten (10) business days or more then, in such event, and, in addition to any other rights to which Tenant is entitled under this Lease, at law and/or in equity, Tenant shall also be entitled to an abatement of all of its Base Rent and all Additional Rent for such period of time in excess of such ten (10) business day period until the service, as applicable, is provided or restored; provided that, if such interruption or failure is not capable of being cured by Landlord within such ten (10)

business day period and was not caused by Landlord's negligence or intentional misconduct, such abatement shall not take effect until a reasonable period of time (not to exceed ten (10) business days) after such interruption or failure becomes curable by Landlord, provided that Landlord at all times is diligently prosecuting such cure to completion.

6.4 **Regulations Regarding Utilities Services**. Tenant agrees to cooperate fully, at all times, with Landlord in abiding by all reasonable regulations and requirements which Landlord may prescribe for the proper functioning and protection of all utilities and services reasonably necessary for the operation of the Premises and the Building. Throughout the Term of this Lease, Landlord shall have free access to any and all mechanical installations, and Tenant agrees that there shall be no construction of partitions or other obstructions which might interfere with access to or the moving of servicing equipment to or from the enclosures containing said installations. Tenant further agrees that neither Tenant nor its employees, agents, licensees, invitees or contractors shall at any time tamper with, adjust or otherwise in any manner affect Landlord's mechanical installations.

ARTICLE 7

CONDITION AND CARE OF PREMISES

No promises of Landlord to alter, remodel, improve, repair, decorate or clean the Premises or any part thereof have been made, and no representation respecting the condition of the Premises, the Building or the Land, has been made to Tenant by or on behalf of Landlord except to the extent expressly set forth herein or in the Work Letter, if any; provided, however, that Landlord shall deliver the Premises reasonably free of all debris, in a broom-clean condition. Subject to the provisions of Article 15 hereof, Tenant, at its own expense, shall keep the Premises in good repair and tenantable condition and shall promptly and adequately repair all damage to the Premises caused by Tenant or any of its employees, contractors, agents, invitees or licensees, including replacing or repairing all damaged or broken glass, fixtures and appurtenances resulting from any such damage, under the supervision and with the approval of Landlord and within any reasonable period of time specified by Landlord. If Tenant does not do so promptly and adequately, Landlord may, but need not, make such repairs and replacements and Tenant shall pay Landlord the cost thereof on demand.

ARTICLE 8

RETURN OF PREMISES

8.1 **Surrender of Possession**. At the termination of this Lease by lapse of time or otherwise or upon termination of Tenant's right of possession without termination of this Lease, Tenant shall surrender possession of the Premises to Landlord and deliver all keys and other access devices to the Premises to Landlord and make known to Landlord the combination of all locks of vaults then remaining in the Premises, and, subject to the following paragraph, shall return the Premises and all equipment and fixtures of Landlord therein to Landlord in "broom clean", good condition, ordinary wear and tear excepted, ordinary wear, loss or damage by fire or other insured casualty, and damage resulting from the act of Landlord or its employees and agents excepted, failing which Landlord may restore the Premises and such equipment and fixtures to such condition and Tenant shall pay the cost thereof to Landlord on demand.

8.2 **Installations and Additions**. All installations, additions, partitions, hardware, light fixtures, non-trade fixtures and improvements, whether temporary or permanent, except movable furniture and equipment belonging to Tenant, in or upon the Premises, whether placed there by Tenant or Landlord, shall be Landlord's property and, upon termination of this Lease by lapse of time or otherwise, or of Tenant's right of possession without termination of this Lease, shall remain upon the Premises, all without compensation, allowance or credit to Tenant; provided, however, that if prior to such termination or within ten (10) days thereafter Landlord so directs by notice, Tenant, at Tenant's sole cost and expense, shall promptly remove such of the installations, additions,

partitions, hardware, light fixtures, non-trade fixtures and improvements placed in the Premises by Tenant as are designated in such notice and repair any damage to the Premises caused by such removal, failing which Landlord may remove the same and repair the Premises and Tenant shall pay the cost thereof to Landlord on demand. At the sole option of Landlord, Tenant shall leave in place any floor covering without compensation to Tenant, or Tenant shall remove any floor covering and shall remove all fastenings, paper, glue, bases or other vestiges and restore the floor surface to its previous condition, or shall pay to Landlord upon demand Landlord's reasonable out of pocket cost for restoring the floor surface to such condition,

8.3 **Trade Fixtures and Personal Property**. Tenant shall also remove Tenant's furniture, machinery, safes, trade fixtures and other items of movable personal property of every kind and description from the Premises and repair any damage to the Premises caused thereby, such removal and restoration to be performed prior to the end of the Term or within ten (10) days following termination of this Lease or Tenant's right of possession, whichever is earlier. If Tenant fails to remove such items, Landlord may do so, and thereupon the provisions of Section 17.6 shall apply and Tenant shall pay to Landlord upon demand Landlord's reasonable out of pocket cost of removal and of restoration of the Premises.

8.4 **Survival**. All obligations of Tenant under this Article 8 shall survive the expiration of the Term or earlier termination of this Lease.

ARTICLE 9

HOLDING OVER

Tenant shall pay Landlord for each day Tenant retains possession of the Premises or any part thereof after termination of this Lease, by lapse of time or otherwise, or of Tenant's right to possession of the Premises, an amount which is one hundred fifty percent (150%) of the amount of Base Rent and Rent Adjustments for a day based upon the annual rate of Base Rent set forth in Section 3.1 and on Rent Adjustments provided for in Article 4 for the period in which such possession occurs, calculated as though such period were within the Term (collectively "**Holdover Rent**"), and Tenant shall also pay all damages, consequential as well as direct, sustained by Landlord by reason of such retention. In the alternative, if Landlord gives written notice to Tenant of Landlord's election thereof, such holding over shall, at Landlord's election, constitute a month-to-month tenancy under the terms and conditions of this Lease except that Holdover Rent shall apply. Acceptance by Landlord of rent after such termination shall not of itself constitute either the creation bf such a month-to-month tenancy or a renewal. Nothing contained in this Article 9 shall be construed or shall operate as a waiver of Landlord's right of reentry or any other right or remedy of Landlord.

ARTICLE 10

RULES AND REGULATIONS

Tenant agrees to observe and not to interfere with the rights reserved to Landlord in Article 11 and agrees, for itself, its employees, agents, contractors, invitees and licensees, to comply with the rules and regulations set forth in **Exhibit C** attached to this Lease and made a part hereof and such other reasonable rules and regulations as may be adopted by Landlord pursuant to Section 11.1 (m) of this Lease, provided that no modification or additions shall not inconsistent with or in limitation of the provisions of this Lease or have any material adverse affect on Tenant's rights hereunder. Any violation by Tenant of any of the rules and regulations contained in **Exhibit C** or in any Section of this Lease, or as may hereafter be adopted by Landlord pursuant to Section 11.1 (m) of this Lease (provided that no modification or additions shall not inconsistent with or in limitation of the provisions of this Lease or have any material adverse affect on Tenant's rights hereunder), may be restrained; but whether or not so restrained, Tenant acknowledges and agrees that it shall be and shall remain liable for all damages, loss, costs and expenses resulting from any violation by Tenant of any of said rules and regulations. Nothing contained in this

Lease shall be construed to impose upon Landlord any duty or obligation to enforce said rules and regulations or the terms, covenants and conditions of any other lease against any other tenant or any other persons, and Landlord and its beneficiaries shall not be liable to Tenant for violation of the same by any other tenant, its employees, agents or invitees, or by any other person.

ARTICLE 11

RIGHTS RESERVED TO LANDLORD

11.1 **RIGHTS RESERVED TO LANDLORD**. Landlord reserves the following rights, exercisable without notice and without liability to Tenant for damage or injury to property, person or business and without effecting an eviction or disturbance of Tenant's use or possession or giving rise to any claim for setoff or abatement of Rent or affecting any of Tenant's obligations under this Lease:

(a) To the exclusive use of the name of the Building and Office Complex for all purposes, except that Tenant may use such name(s) as its business address and for no other purpose;

(b) To change the name or street address of the Building;

(c) To install and maintain signs on the exterior and interior of the Building;

(d) To prescribe the location and style of the suite number and identification sign or lettering for the Premises and to designate and limit the space allotted to Tenant on the directory of the Building;

(e) To retain at all times, and to use in appropriate instances, pass keys or other access devices to the Premises;

(f) To grant to anyone the exclusive right to conduct any business or render any service in the Building, or the nonexclusive right to use any premises in the Building for a use which is the same as or similar to the use expressly permitted to Tenant by Article 5;

(g) During the last nine (9) months of the Lease, to exhibit the Premises at reasonable hours and to decorate, remodel, repair, alter or otherwise prepare the Premises for reoccupancy at any time after Tenant vacates or abandons the Premises;

(h) To enter the Premises at reasonable hours for supplying janitorial service or other service to be provided to Tenant hereunder and unless there is an emergency upon prior notice to Tenant for inspection;

(i) To require all persons entering or leaving the Building during such hours as Landlord may reasonably determine from time to time to identify themselves to security personnel by registration or otherwise in accordance with security controls, and to establish their right to enter or to leave in accordance with the provisions of **Exhibit C**. Landlord shall not be liable in damages for any error with respect to admission to or eviction or exclusion from the Building of any person. In case of fire, invasion, insurrection, mob, riot, civil disorder, public excitement or other commotion, or threat thereof, Landlord reserves the right to limit or to prevent access to the Building during the continuance of the same, to shut down elevator service, to activate elevator emergency controls, or otherwise to take such action or preventive measures deemed necessary by Landlord for the safety or security of the tenants or other occupants of the Building or for the protection of the Building and the property in the Building. Tenant agrees to cooperate with any reasonable safety or security program developed by Landlord;

(j) To regulate access to telephone, electrical and other utility closets in the Building and to require use of designated contractors for any work involving access to the same;

(k) To control and prevent access to Common Areas and other non-general public areas of the Building;

(l) Provided that reasonable access to the Premises shall be maintained and the business of Tenant shall not be interfered with unreasonably, to rearrange, relocate, enlarge, reduce or change corridors, exits, entrances in or to the Building and to decorate and, at its own expense, to make repairs, alterations, additions and improvements, structural or otherwise, in or to the Building or any part thereof, and any adjacent building, land, street or alley, including for the purpose of connection with or entrance into or use of the Building in conjunction with any adjoining or adjacent building or buildings, now existing or hereafter constructed, and may for such purposes erect scaffolding and other structures reasonably required by the character of the work to be performed, and during such operations may enter upon the Premises and take into and upon or through any part of the Building, including the Premises, all materials that may be required to make such repairs, alterations, improvements or additions, and in that connection, Landlord may temporarily close public entry ways, other public spaces, stairways or corridors and interrupt or temporarily suspend any services or facilities agreed to be furnished by Landlord, all without the same constituting an eviction of Tenant in whole or in part and without abatement of Rent by reason of loss or interruption of the business of Tenant or otherwise and without in any manner rendering Landlord liable for damages or relieving Tenant from performance of Tenant's obligations under this Lease. Landlord, at its option, may make any repairs, alterations, improvements and additions in and about the Building and the Premises during ordinary business hours and, if Tenant desires to have such work done at times other than business hours, Tenant shall pay all overtime and additional expenses resulting therefrom; and

(m) From time to time to make and to adopt such reasonable rules and regulations, in addition to or other than or by way of amendment or modification of the rules and regulations contained in **Exhibit C** or other Sections of this Lease, for the protection and welfare of the Building and its tenants and occupants, as Landlord may determine, provided that no modification or additions shall not inconsistent with or in limitation of the provisions of this Lease and Tenant agrees to abide by and comply with all such rules and regulations.

11.2 **Use of Roof and Land**. Landlord specifically excepts and reserves to itself the use of any roof decks, the exterior portions of the Premises, all rights to the land and improvements below the improved floor level of the Premises, to the improvements and air rights above the ceiling of the Premises and to the improvements and air rights located outside the demising walls of the Premises and to such areas within the Premises required for installation of utility lines and other installations required to serve other occupants of the Building and to maintain and repair same, and no rights with respect thereto are conferred upon Tenant, unless otherwise specifically provided herein. This Lease does not grant any rights to light or air.

ARTICLE 12

ALTERATIONS

Tenant shall not make any alterations, additions or improvements to the Premises without the prior written consent of Landlord, which consent shall not be unreasonably withheld, conditioned or delayed. Once Tenant submits a request to Landlord for approval in accordance with the notice requirements of this Lease, Landlord shall notify Tenant in writing within ten (10) business days whether such request is acceptable and, if not, Landlord shall set forth in reasonable detail those items which are not acceptable. Notwithstanding anything herein to the contrary, Tenant may make alterations, additions or improvements to the interior walls, ceiling and carpeting within the

Premises and non-structural alterations of less than $10,000) (collectively, "**Permitted Alterations**") without the having first received the consent of Landlord. If Landlord consents to such alterations, additions or improvements and with respect to any Permitted Alterations, before commencement of the work or delivery of any materials onto the Premises or into the Building, Tenant shall furnish to Landlord for approval (i) plans and specifications, (ii) names and addresses of contractors, (ill) copies of contracts, necessary permits and licenses and (iv) instruments of indemnification against any and all claims, costs, expenses, damages and liabilities which may arise in connection with such work, all in such form, substance and amount as may be satisfactory to Landlord. In addition, prior to commencement of any such work or delivery of any materials into the Premises, Tenant shall provide Landlord with appropriate evidence of Tenant's ability to pay for such work and materials in full, and if requested by Landlord, shall deposit with Landlord at such time such security for the payment of said work and materials as Landlord may require. All alterations, additions and improvements shall be' installed in a good, workmanlike manner and only new, high-grade materials shall be used. All such work shall be done only by contractors or mechanics approved by Landlord and shall be subject to Landlord's scheduling requirements and regulations. Tenant further agrees to hold Landlord harmless from any and all liabilities of every kind and description which may arise out of or be connected in any way with said alterations, additions or improvements. All contractors and subcontractors must execute a Tenant's Contractor and Subcontractor Agreement prior to beginning any work on the Premises. Before commencing any to the Building, including the Premises, occasioned by such alterations, additions and improvements work in connection with such alterations, additions or improvements, Tenant shall furnish Landlord with certificates of insurance from all contractors performing labor or furnishing materials insuring Landlord against any and all liabilities which may arise out of or be connected in any way with said alterations, additions or improvements. Tenant shall permit Landlord to supervise construction operations in connection with the foregoing work if Landlord requests to do so. Tenant shall pay the cost of all such alterations, additions and improvements, as well as the cost of decorating and repairing any damage, including the cost of labor and materials, contractors' profits, overhead and general conditions, and a reasonable fee to Landlord. Upon completing any alterations, additions or improvements, Tenant shall furnish Landlord with contractors' affidavits in form required by law, and full and final waivers of lien and receipted bills covering all labor and materials expended and used. All alterations, additions and improvements shall comply with all insurance requirements and with all city and county ordinances and regulations and with the requirements of all state and federal statutes and regulations.

ARTICLE 13

ASSIGNMENT AND SUBLETTING

13.1 **Assignment and Subletting**. Tenant shall not, without the prior written consent of Landlord, which consent shall not be unreasonably withheld, conditioned or delayed: (a) assign, transfer, mortgage, pledge, hypothecate or encumber or subject to or permit to exist upon or be subjected to any lien or charge, this Lease or any interest under it, (b) allow to exist or occur any transfer of or lien upon this Lease or Tenant's interest herein by operation of law, (c) sublet the Premises or any part thereof, or (d) permit the use or occupancy of the Premises or any part thereof for any purpose not provided for under Article 5 of this Lease or by anyone other than Tenant and Tenant's agents and employees. In no event shall this Lease be assigned or assignable by voluntary or involuntary bankruptcy proceedings or otherwise, and in no event shall this Lease or any rights or privileges hereunder be an asset of Tenant under any bankruptcy, insolvency or reorganization proceedings.

Notwithstanding the forgoing, any assignment or sublet must be in writing, and subject to all the terms and conditions of this Lease.

13.2 **Rentals Based on Net Income**. Without limiting the generality of the foregoing provisions of this Article 13, Tenant expressly covenants and agrees not to enter into any lease, ·sublease, license, concession or other agreement for use, occupancy or utilization of the Premises which provides for rental or other payment for such use, occupancy or utilization based in whole or in part on the net income or profits derived by any person from

the property leased, used, occupied or utilized (other than an amount based upon a fixed percentage or percentages of receipts or sales), and that any such purported lease, sublease, license, concession or other agreement shall be absolutely void and ineffective as a conveyance of any right or interest in the possession, use, occupancy or utilization of any part of the Premises.

13.3 **Consent by Landlord**. Consent by Landlord to any assignment, subletting, use, occupancy or transfer shall not operate to relieve Tenant from any covenant or obligation hereunder except to the extent, if any, expressly provided for in such consent, or be deemed to be a consent to or relieve Tenant from obtaining Landlord's consent to any subsequent assignment, transfer, lien, charge, subletting, use or occupancy. Tenant shall pay all of Landlord's costs, charges and expenses, including attorneys' fees, incurred in connection with any assignment, transfer, lien, charge, subletting, use or occupancy made or requested by Tenant. Tenant agrees that all advertising by Tenant or on Tenant's behalf with respect to the assignment of this Lease or subletting of space must be approved in writing by Landlord prior to publication.

13.4 **Tenant's Notice: Landlord's Right to Terminate**. Tenant, by notice in writing, shall advise Landlord of its intention from, on and after a stated date (which shall not be less than thirty (30) days after the date of Tenant's notice) to assign this Lease or sublet any part or all of the Premises for the balance or any part of the Term (the "**Assignment/Sublet Notice**"), and, in such event, and within ten (10) business days after Landlord's receipt of the Assignment/Sublet Notice, Landlord shall inform Tenant in writing whether or not (the "**Recapture Response**") Landlord will exercise its recapture right as set forth in this Section 13.4. If Landlord indicates in the Recapture Response that Landlord will not exercise its recapture right or Landlord fails to respond to the Assignment/Sublet Notice, Landlord shall not have the right of recapture with respect to such proposed assignment or sublet, provided however that such assignment or sublet shall be subject to the other provisions of this Article 13. If Landlord indicates in the Recapture Response that it desires to exercise its recapture right as set forth in this Section 13.4, Tenant may within ten (10) days after its receipt of the Recapture Response withdraw its Assignment/Sublet Notice and the Term of the Lease shall continue as if Tenant had not provided any such Assignment/Sublet Notice. In the event Tenant does not withdraw its Assignment/Sublet Notice, then Landlord shall have the right, to be exercised by giving written notice to Tenant within thirty (30) days after delivery of the Recapture Response, to recapture the space described in Tenant's Assignment/Sublet Notice and such recapture notice, if given, shall terminate this Lease with respect to the space therein described as of the date stated in Tenant's notice. Tenant's Assignment/Sublet Notice shall state the name and address of the proposed subtenant or assignee, and a true and complete copy of the proposed sublease or assignment and sufficient information to permit Landlord to determine the financial responsibility and character of the proposed subtenant or assignee shall be delivered to Landlord with said notice. If Tenant's notice covers all of the space hereby demised, and if Landlord gives its recapture notice with respect thereto, the Term of this Lease shall expire on the date stated in Tenant's Assignment/Sublet Notice as fully and completely as if that date had been herein definitely fixed for the expiration of the Term. If, however, this Lease is terminated pursuant to the foregoing with respect to less than the entire Premises, Base Rent and Tenant's Proportionate Share as defined herein shall be adjusted on the basis of the number of rentable square feet retained by Tenant, and this Lease as so amended shall continue thereafter in full force and effect; provided that Tenant shall pay all costs in connection with the physical subdivision of any portion of the Premises.

13.5 **Landlord's Consent**. If Landlord, upon receiving Tenant's notice with respect to any such space, does not exercise its right to terminate as aforesaid, Landlord will not unreasonably withhold, condition or delay its consent to Tenant's assignment of this Lease or subletting the space covered by its notice. Landlord shall not be deemed to have unreasonably withheld its consent to a sublease of part or all of the Premises or an assignment of this Lease if its consent is withheld because:

(a) Tenant is then in default hereunder;

(b) any notice of termination of this Lease or termination of Tenant's possession was given under Article 17;

(c) the portion of the Premises which Tenant proposes to sublease, including the means of ingress thereto and egress therefrom and the proposed use thereof, or the remaining portion of the Premises, or both, will violate any city, state or federal law, ordinance or regulation, including, without limitation, any applicable building code or zoning ordinances;

(d) the proposed use of the Premises by the subtenant or assignee does not conform with the use permitted by Article 5;

(e) the subtenant or assignee is not sufficiently financially responsible to perform its obligations under the proposed sublease or assignment; or

(f) the proposed subtenant or assignee is a government or a government agency; or

(g) the proposed subtenant or assignee is an occupant of the Office Complex or an entity to whom Landlord or Landlord's agent have been marketing space in the Office Complex.

Landlord shall consent or withhold such consent by written notice to Tenant within ten (10) business days of Tenant's written request for Landlord's consent. If Landlord fails to respond to Tenant's request within such ten (10) business day period, Landlord shall be deemed to have consented to such sublet or assignment.

13.6 **Profits**. If Tenant, having first obtained Landlord's consent to any sublease or assignment, or if Tenant or a trustee in bankruptcy for Tenant pursuant to the Bankruptcy Code, assigns this Lease or sublets the Premises, or any part thereof, at a rental or for other consideration in excess of the Rent or pro rata portion thereof due and payable by Tenant under this Lease, then Tenant shall pay to Landlord as additional rent one hundred percent (100%) of any such excess rent or other monetary consideration immediately upon receipt under any such assignment or, in the case of a sublease, (a) on the first day of each month during the term of any sublease, fifty percent (50%) of the excess of all rent and other consideration due from the subtenant for such month over the Rent then payable to Landlord pursuant to the provisions of this Lease for said month (or, if only a portion of the Premises is being sublet, fifty percent (50%) of the excess of all rent and other consideration due from the subtenant for such month over the portion of the Rent then payable to Landlord pursuant to the provisions of this Lease for said month which is allocable on a square footage basis to the space sublet) and (b) immediately upon receipt thereof, any other consideration realized by Tenant from such subletting; it being agreed, however, that Landlord shall not be responsible for any deficiency if Tenant assigns this Lease or sublets the Premises or any part thereof at a rental less than that provided for herein.

13.7 **Assignee to Assume Obligations**. If Tenant assigns this Lease as permitted herein, the assignee shall expressly assume all of the obligations of Tenant hereunder in a written instrument satisfactory to Landlord and furnished to Landlord not later than fifteen (15) days prior to the effective date of the assignment. If Tenant subleases the Premises as permitted herein, Tenant shall obtain and furnish to Landlord, not later than fifteen (15) days prior to the effective date of such sublease and in form satisfactory to Landlord, the written agreement of such subtenant to the effect that the subtenant, at Landlord's option and written request, will attorn to Landlord in the event this Lease terminates before the expiration of the sublease.

13.8 **Change of Control**. Notwithstanding anything to the contrary in this Article 13, if Tenant is a corporation (other than a corporation the stock of which is publicly traded) the term "**Change of Control**" shall mean any direct or indirect change in the legal or beneficial ownership or control of the shares of stock which constitute control of Tenant other than by reason of gift or death. The term "**control**" as used herein means the power, directly or indirectly, to direct or cause the direction of the management or policies of Tenant. If Tenant is

a partnership, whether general or limited, or a limited liability company, the term "**Change of Control**" shall mean any direct or indirect change in the legal or beneficial ownership or control of the partnership interests or, as the case may be, any change in the membership or control of said limited liability company, which constitute control of Tenant other than by reason of gift or death.

13.9 **Assignment or Sublet to Affiliate**. Notwithstanding anything set forth above to the contrary, provided Tenant is not in Default in the payment of Rent or any other sums due hereunder, Tenant shall have the right without the prior consent of Landlord (and without being subject to Section 13.4 of this Lease), except as provided below, to assign this Lease or sublet the Premises or any part thereof to: (a) an Affiliate, as hereinafter defined, of Tenant, or (b) any entity to which Tenant may merge or consolidate whether through a private placement, public offering, stock sale, or otherwise or to a purchaser of all or substantially all of the assets of Tenant or the business of Tenant, on the following conditions:

(a) Tenant shall notify Landlord in writing of such assignment, subletting or transfer prior to the effective date thereof, and furnish to Landlord such information (including the most recent financial statement, provided that Landlord executes and delivers to Tenant such confidentiality agreement as is reasonably requested by Tenant with regard to such information) regarding the identity, business, and financial condition of such Affiliate or other entity as Landlord may reasonably require;

(b) Tenant shall deliver to Landlord evidence reasonably satisfactory to Landlord that such Affiliate satisfies the requirements of this Section 13.9;

(c) Tenant shall deliver to Landlord copies of all operative documents effecting such assignment or subletting, which will be commercially reasonable in nature and which documents shall be subject to the terms and conditions of the Lease; and

(d) any such subletting, assignment or transfer shall not release or discharge the initial Tenant of or from any past or present liability (but not future liability), under this Lease and the initial Tenant shall continue fully liable hereunder; and (c) the creditworthiness of such Affiliate as described below.

As used herein, "**Affiliate**" is defined as any partnership or corporation that through one or more intermediaries, controls or is controlled by, or is under common control with, Tenant ("**control**" as used in this Section 13.9 means the direct or indirect ownership of more than fifty percent (50%) of the beneficial interest of the entity). If, after giving effect to any such assignment, subletting or transfer to an Affiliate, the net worth of the assignee, sublessee or transferee would not be substantially the same as or greater than the net worth of the Tenant (as of the Execution Date of the Lease) immediately prior to such assignment, sublease or transfer, then Landlord shall not be deemed to be acting unreasonably in determining the creditworthiness of the Affiliate not to be acceptable. Any change of ownership not resulting in a Change of Control will not be deemed an assignment or transfer requiring Landlord's consent.

ARTICLE 14

WAIVER OF CERTAIN CLAIMS; INDEMNITY BY TENANT

14.1 **Waiver of Certain Claims**. To the extent not prohibited expressly by law, Tenant releases Landlord and its beneficiaries, if any, and their agents, servants and employees, from and waives all claims for damages to person or property sustained by Tenant or by any occupant of the Premises or the Office Complex, or by any other person, resulting directly or indirectly from fire or other casualty, cause or any existing or future condition, defect, matter or thing in or about the Premises, the Office Complex or any part of it, or from any equipment or appurtenance therein, or from any accident in or about the Office Complex, or from any act or neglect of any tenant or other occupant of the Office Complex or any part thereof or of any other person, and its agents,

employees and contractors, provided however that the foregoing waiver shall not apply with respect to any claim or damage arising out of any act, neglect or omission of Landlord. This Section shall apply especially, but not exclusively, to damage caused by water, snow, frost, steam, excessive heat or cold, sewerage, gas, odors or noise, or the bursting or leaking of pipes or plumbing fixtures, broken glass, sprinkling or air conditioning devices or equipment, or flooding of basements, and shall apply (except as provided above) without distinction as to the person whose act or neglect was responsible for the damage and whether the damage was due to any of the acts specifically enumerated above, or from any other thing or circumstance, whether of a like nature or of a wholly different nature.

14.2 **Damage Caused by Tenant's Neglect**. If any damage to the Premises or the Office Complex or any equipment or appurtenance therein, whether belonging to Landlord or to other tenants or occupants of the Office Complex, results solely from any act or neglect of Tenant, its employees, agents, contractors, licensees or invitees, Tenant shall be liable therefore and Landlord, at its option, may repair such damage and Tenant, upon demand by Landlord, shall reimburse Landlord for all costs of such repairs and damages in excess of amounts, if any, paid to Landlord under insurance covering such damage.

14.3 **Tenant Responsible for Personal Property**. All personal property belonging to Tenant or any occupant of the Premises that is in the Project or the Premises shall be there at the risk of Tenant or other person only and Landlord shall not be liable for damage thereto or theft or misappropriation thereof.

14.4 **Indemnification**. To the extent not prohibited expressly by law, and subject to Landlord's gross negligence or willful misconduct Tenant agrees to hold Landlord and its agents, employees, and contractors harmless and to indemnify each of them against claims and liabilities, including reasonable attorneys' fees, for injuries to all persons and damage to or theft, misappropriation or loss of properly occurring in or about the Premises or the Office Complex arising from Tenant's occupancy of the Premises or the conduct of its business or from any activity, work or thing done, permitted or suffered by Tenant in or about the Premises or the Office Complex or from any breach or default on the part of Tenant in the performance of any covenant or agreement on the part of Tenant to be performed pursuant to the terms of this Lease or due to any other act or omission of Tenant, its agents, contractors, invitees, licensees or employees.

To the extent not prohibited expressly by law, and subject to Tenant's gross negligence or willful misconduct Landlord agrees to hold Tenant and its agents, employees, and contractors harmless and to indemnify each of them against claims and liabilities, including reasonable attorneys' fees, for injuries to all persons and damage to or theft, misappropriation or loss of properly occurring in or about the Office Complex arising from any activity, work or thing done, permitted or suffered by Landlord in or about the Office Complex or from any breach or default on the part of Landlord in the performance of any covenant or agreement on the part of Landlord to be performed pursuant to the terms of this Lease or due to any other act or omission of Landlord, its agents, contractors, invitees, licensees or employees.

ARTICLE 15

DAMAGE OR DESTRUCTION BY CASUALTY

15.1 **Damage or Destruction by Casualty**. If the Premises or the Building are damaged by fire or other casualty and if such damage does not render all or a substantial portion of the Premises or the Building untenantable, then Landlord shall proceed to repair and restore the same with reasonable promptness, subject to reasonable delays for insurance adjustments and delays caused by matters beyond Landlord's reasonable control. If any such damage renders all or a substantial portion of the Premises or the Building untenantable, Landlord, with reasonable promptness after the occurrence of such damage, shall estimate the length of time that will be required to substantially complete the repair and restoration of such damage and shall advise Tenant by notice of such estimate. If it is estimated that the amount of time required to substantially complete such repair and restoration

will exceed one hundred eighty (180) days from the date such damage occurred, then either Landlord or Tenant (but as to Tenant, only if all or a substantial portion of the Premises are rendered untenantable) shall have the right to terminate this Lease as of the date of such damage upon giving notice to the other at any time within twenty (20) days after Landlord gives Tenant the notice containing said estimate (it being understood that, if it elects to do so, Landlord may also give such notice of termination together with the notice containing said estimate). Unless this Lease is so terminated, Landlord shall proceed with reasonable promptness to repair and restore the Premises, subject to reasonable delays for insurance adjustments and delays caused by matters beyond Landlord's reasonable control, and also subject to zoning laws and building codes then in effect. Landlord shall have no liability to Tenant, and Tenant shall not be entitled to terminate this Lease, except as hereinafter provided, if such repairs and restoration in fact are not completed within the time period estimated by Landlord or within one hundred eighty (180) days. If the Premises are not repaired or restored within twelve (12) months after the date of such fire or other casualty, then either party may terminate this Lease, effective as of the date of such fire or other casualty, by written notice given to the other party not later than thirty (30) days after the expiration of said twelve (12) month period, but prior to substantial completion of repair or restoration. Notwithstanding anything to the contrary set forth herein, (a) Landlord shall have no duty pursuant to this Section to repair or restore any portion of the alterations, additions or improvements owned or made by or on behalf of Tenant in the Premises or existing in the Premises as of the date such space is leased to, or occupied by, Tenant, or to expend for any repair or restoration amounts in excess of insurance proceeds paid to Landlord and available for repair or restoration; and (b) if any such damage rendering all or a substantial portion of the Premises or the Building untenantable shall occur during the last two (2) years of the Term, either Tenant or Landlord shall have the option to terminate this Lease by giving written notice to the other party within sixty (60) days after the date such damage occurred, and if such option is so exercised, this Lease shall terminate as of the date of such notice.

15.2 **Abatement of Rent**. In the event any fire or casualty damage not caused solely by the act or neglect of Tenant, its agents or employees, renders the Premises untenantable and if this Lease is not terminated pursuant to Section 15.1 by reason of such damage, then Rent shall abate during the period beginning with the date of such damage and ending with the date Landlord tenders the Premises to Tenant as being ready for occupancy. Such abatement shall be in an amount bearing the same ratio to the total amount of Rent for such period as the portion of the Premises not ready for occupancy from time to time bears to the entire Premises. In the event of termination of this Lease pursuant to Section 15.1, Rent shall be apportioned on a per diem basis and shall be paid to the date of the fire or casualty.

ARTICLE 16

EMINENT DOMAIN

If the entire Building or a substantial part thereof, or any part thereof which includes all or a substantial part of the Premises, shall be taken or condemned by any competent authority for any public or quasi-public. use or purpose, the Term of this Lease shall end upon and not before the earlier of the date when the possession of the part so taken shall be required for such use or purpose or the effective date of the taking, and without apportionment of the award to or for the benefit of Tenant. If any condemnation proceeding shall be instituted in which it is sought to take or damage any part of the Building, the taking of which, in Landlord's opinion, would prevent the economical operation of the Building, or if the grade of any street or alley adjacent to the Building is changed by any competent authority, and such taking, damage or change of grade makes it necessary or desirable to remodel the Building to conform to the taking, damage or changed grade, Landlord shall have the right to terminate this Lease upon written notice given to Tenant not less than ninety (90) days prior to the date of termination designated in said notice. In either of these events, Rent at the then current rate shall be apportioned as of the date of the termination. No money or other consideration shall be payable by Landlord to Tenant for the right of termination, and Tenant shall have no right to share in the condemnation award, whether for a total or partial taking, for loss of Tenant's leasehold or improvements or other loss or expenses or to share in any judgment for damages caused by the change of grade.

ARTICLE 17

DEFAULT

17.1 **Events of Default**. The occurrence of anyone or more of the following matters constitutes a default (each a "**Default**") by Tenant under this Lease:

(a) Failure by Tenant to pay any Rent within five (5) business days after written notice from Landlord to Tenant of said failure to pay the same on the due date;

(b) Failure by Tenant to pay, within five (5) business days after written notice from Landlord to Tenant of said failure to pay on the due date, any other monies required to be paid by Tenant under this Lease;

(c) Failure by Tenant to observe or perform any of the covenants with respect to assignment and subletting set forth in Article 13;

(d) Failure by Tenant to comply with Tenant's warranties, representations or covenants set forth in Article 26 within thirty (30) business days after written notice from Landlord to Tenant of said failure;

(e) Failure by Tenant to cure, immediately after receipt of notice from Landlord to Tenant, any hazardous condition which Tenant has created in violation of law or of this Lease;

(f) Failure by Tenant to cure a default arising pursuant to Section 21.4 of this Lease within the period of time provided in said Section; or any other failure by Tenant to maintain the insurance required to be maintained by Tenant pursuant to Article 21, if such failure continues for forty eight (48) hours following written notice thereof from Landlord to Tenant;

(g) Failure by Tenant to observe or perform any other covenant, agreement, condition or provision of this Lease not otherwise referred to in this Section 17.1, if such failure continues for thirty (30) days after notice thereof from Landlord to Tenant, provided however, that if the nature of Tenant's obligation is such that more than thirty (30) days are required for performance, then Tenant shall not be in default if Tenant commences performance within such thirty (30) day period and thereafter diligently and continuously prosecutes the same following the date of Landlord's written notice with respect to such failure;

(h) The levy upon, under writ of execution or the attachment by legal process of, the leasehold interest of Tenant, or the filing or creation of a lien with respect to such leasehold interest, which lien shall not be released or discharged within twenty (20) days from the date of such filing;

(i) Tenant fails to take possession of the Premises when available for occupancy unless continues to pay Rent due under this Lease;

(j) Tenant becomes insolvent or bankrupt or admits in writing its inability to pay its debts as they mature, or makes an assignment for the benefit of creditors, or applies for or consents to the appointment of a trustee or receiver for Tenant or for the major part of its property;

(k) A trustee or receiver is appointed for Tenant or for the major part of its property and is not discharged within sixty (60) days after such appointment; or

(1) Any bankruptcy, reorganization, arrangement, insolvency or liquidation proceeding, or other proceeding for relief under any bankruptcy law, or similar law for the relief of debtors, is instituted (i) by or on behalf of Tenant or (ii) against Tenant and is allowed against it or is consented to by it or is not dismissed within sixty (60) days after such institution.

17.2 **Rights and Remedies of Landlord**. If a Default occurs, Landlord shall have the rights and remedies set forth in this Article 17, which shall be distinct, separate and cumulative and shall not operate to exclude or deprive Landlord of any other right or remedy allowed it by law:

(a) Landlord may terminate this Lease by giving to Tenant notice of Landlord's election to do so, in which event the Term of this Lease shall end, and all right, title and interest of Tenant hereunder shall expire, on the date stated in such notice and demanding that Tenant deliver possession of the Premises on such date;

(b) Landlord may terminate the right of Tenant to possession of the Premises without terminating this Lease by giving notice to Tenant that Tenant's right to possession shall end on the date stated in such notice, whereupon the right of Tenant to possession of the Premises or any part thereof shall cease on the date stated in such notice and demanding that Tenant deliver possession of the Premises on such date; and

(c) Landlord may enforce the provisions of this Lease and may enforce and protect the rights of Landlord hereunder by a suit or suits in equity or at law for the specific performance of any covenant or agreement contained herein, or for the enforcement of any other appropriate legal or equitable remedy, including recovery of all moneys due or to become due from Tenant under any of the provisions of this Lease.

17.3 **Right to Re-Enter**. If Landlord exercises either of the remedies provided in Sections 17.2(a) or (b), Tenant shall surrender possession and vacate the Premises and immediately deliver possession thereof to Landlord, and Landlord may re-enter and take complete and peaceful possession of the Premises, with or without process of law, full and complete license to do so being hereby granted to Landlord, and Landlord may remove all occupants and property therefrom, using such force as may be necessary, without being deemed guilty in any manner of trespass, eviction or forcible entry and detainer and without relinquishing Landlord's right to Rent or any other right given to Landlord hereunder or by operation of law.

17.4 **Current Damages**. If Landlord terminates the right of Tenant to possession of the Premises without terminating this Lease, Landlord shall have the right to immediate recovery of all amounts then due hereunder. Such termination of possession shall not release Tenant, in whole or in part, from Tenant's obligation to pay Rent hereunder for the full Term, and Landlord shall have the right, from time to time, to recover from Tenant, and Tenant shall remain liable for, all Base Rent, Rent Adjustments and any other sums accruing as they become due under this Lease during the period from the date of such notice of termination of possession to the stated end of the Term. In any such case, Landlord may relet the Premises or any part thereof for the· account of Tenant for such rent, for such time (which may be for a term extending beyond the Term of this Lease) and upon such terms as Landlord shall determine and may collect the rents from such reletting. Landlord shall not be required to accept any tenant offered by Tenant or to observe any instructions given by Tenant relative to such reletting. Also, in any such case, Landlord may make repairs, alterations and additions in or to the Premises and redecorate the same to the extent deemed by Landlord necessary or desirable and in connection therewith change the locks or other access devices to the Premises, and Tenant upon demand shall pay the cost of all of the foregoing together with Landlord's expenses of reletting. The rents from any such reletting shall be applied first to the payment of the expenses of reentry, redecoration, repair and alterations and the expenses of reletting and second to the payment of Rent herein provided to be paid by Tenant. Any excess or residue shall operate only as an offsetting credit against the amount of Rent due and owing as the same thereafter becomes due and payable hereunder, and

the use of such offsetting credit to reduce the amount of Rent due Landlord, if any, shall not be deemed to give Tenant any right, title or interest in or to such excess or residue and any such excess or residue shall belong to Landlord solely, and in no event shall Tenant be entitled to a credit on its indebtedness to Landlord in excess of the aggregate sum (including Base Rent and Rent Adjustments) which would have been paid by Tenant for the period for which the credit to Tenant is being determined, had no Default occurred. No such reentry or repossession, repairs, alterations and additions, or reletting shall be construed as an eviction or ouster of Tenant or as an election on Landlord's part to terminate this Lease, unless a written notice of such intention is given to Tenant, or shall operate to release Tenant in whole or in part from any of Tenant's obligations hereunder, and Landlord, at any time and from time to time, may sue and recover judgment for any deficiencies remaining after the application of the proceeds of any such reletting.

17.5 **Final Damages**. If this Lease is terminated by Landlord pursuant to Section 17.2(a), Landlord shall be entitled to recover from Tenant all Rent accrued and unpaid for the period up to and including such termination date, as well as all other additional sums payable by Tenant, or for which Tenant is liable or for which Tenant has agreed to indemnify Landlord under any of the provisions of this Lease, which may be then owing and unpaid, and all costs and expenses, including court costs and attorneys' fees incurred by Landlord in the enforcement of its rights and remedies hereunder, and, in addition, Landlord shall be entitled to recover as damages for loss of the bargain and not as a penalty (a) the unamortized portion of any concessions offered by Landlord to Tenant in connection with this Lease, including without limitation Landlord's contribution to the cost of tenant improvements and alterations, if any, installed by either Landlord or Tenant pursuant to this Lease or any Work Letter, (b) the aggregate sum which at the time of such termination represents the excess, if any, of the present value of the aggregate rents which would have been payable after the termination date had this Lease not been terminated, including, without limitation, Base Rent at the annual rate or respective annual rates for the remainder of the Term provided for in Article 3 of this Lease or elsewhere herein and the amount projected by Landlord to represent Rent Adjustments for the remainder of the Term pursuant to Article 4 of this Lease, over the then present value of the then aggregate fair rental value of the Premises for the balance of the Term, such present worth to be computed in each case on the basis of a four percent (4 %) per annum discount from the respective dates upon which such rentals would have been payable hereunder had this Lease not been terminated, and (c) any damages in addition thereto, including reasonable attorneys' fees and court costs, which Landlord sustains as a result of the breach of any of the covenants of this Lease other than for the payment of Rent.

17.6 **Removal of Personal Property**. All property of Tenant removed from the Premises by Landlord pursuant to the provisions of this Article 17 may be handled, removed or stored by Landlord at the cost and expense of Tenant, and Landlord shall not be responsible in any event for the value, preservation or safekeeping thereof. Tenant shall pay Landlord for all expenses incurred by Landlord with respect to such removal and storage so long as the same is in Landlord's possession or under Landlord's control. All such property not removed from the Premises or retaken from storage by Tenant within thirty (30) days after the end of the Term, however terminated, at Landlord's option, shall be conclusively deemed to have been conveyed by Tenant to Landlord as by bill of sale without further payment or credit by Landlord to Tenant.

17.7 **Attorneys' Fees**. If any legal proceedings are commenced to secure or enforce any right under this Lease, and/or any other ancillary documents contemplated herein, the prevailing party, shall be entitled to recover from the other party its reasonable attorneys' fees and costs in addition to all other relief to which said party may be entitled. The term "**prevailing party**" shall mean that party whose position is substantially upheld in a final judgment rendered in such proceedings or, if the final judgment is appealed, that party whose position is substantially upheld by the decision of the final appellate body to consider the appeal.

17.8 **Assumption or Rejection in Bankruptcy**. If Tenant is adjudged bankrupt, or a trustee in bankruptcy is appointed for Tenant, Landlord and Tenant, to the extent permitted by law, agree to request that the trustee in bankruptcy determine within sixty (60) days thereafter whether to assume or to reject this Lease.

17.9 **Default Under Other Leases**. If the term of any lease, other than this Lease, for any space in the Project under which Tenant is now or hereafter the tenant, shall be terminated or terminable after the making of this Lease because of any default by Tenant under such other lease, such fact shall empower Landlord, at Landlord's sole option, to terminate this Lease by notice to Tenant or to exercise any of the rights or remedies set forth in Section 17.2.

17.10 **Waiver of Right of Redemption**. Tenant hereby waives all right of redemption to which Tenant or any person under Tenant may be entitled by any law now or hereafter in force. In addition, in the event of a Default consequent to which Landlord recovers possession of the Premises, Landlord shall however be under a duty to mitigate Landlord's damages.

ARTICLE 18

SUBORDINATION

18.1 **Subordination**. Landlord hereafter from time to time may execute and deliver a first mortgage or first trust deed in the nature of a mortgage (both hereinafter referred to as a "**First Mortgage**"), against the Land and Building or any interest therein. If requested by the mortgagee or trustee under any First Mortgage, Tenant will either: (a) subordinate its interest in this Lease to said First Mortgage, and to any and all advances made thereunder and to the interest thereon, and to all renewals, replacements, supplements, amendments, modifications and extensions thereof, or (b) make certain of Tenant's rights and interests in this Lease superior thereto; and Tenant will promptly execute and deliver such agreement or agreements as may be reasonably required by such mortgagee or trustee under any First Mortgage and which are reasonably acceptable to Tenant. Tenant covenants that it will not subordinate this Lease to any mortgage or trust deed other than a First Mortgage without the prior written consent of the holder of the First Mortgage.

18.2 **Liability of Holder of First Mortgage; Attornment**. It is further agreed that if any First Mortgage is foreclosed, (i) the holder of the First Mortgage or its grantees, or purchaser at any foreclosure sale (or grantee in a deed in lieu of foreclosure), as the case may be, shall not be (x) liable for any act or omission of any prior landlord (including Landlord), (y) subject to any offsets or counterclaims which Tenant may have against a prior landlord (including Landlord), or (z) bound by any prepayment of Base Rent or Rent Adjustments which Tenant may have made in excess of the amounts then due for the next succeeding month, (ii) the liability of the mortgagee or trustee hereunder or purchaser at such foreclosure sale or the liability of a subsequent owner designated as Landlord under this Lease shall exist only so long as such trustee, mortgagee, purchaser or owner is the owner of the Building or Land and such liability shall not continue or survive after further transfer of ownership; and (iii) upon request of the mortgagee or trustee, if the First Mortgage is foreclosed, Tenant will attorn, as Tenant under this Lease, to the purchaser at any foreclosure sale under any First Mortgage, and Tenant will execute such instruments as may be necessary or appropriate to evidence such attornment; and (b) this Lease may not be modified or amended so as to reduce the rent or shorten the term provided hereunder, or so as to affect adversely in any other respect to any material extent the rights of Landlord, nor shall this Lease be cancelled or surrendered, without the prior written consent, in each instance, of the mortgagee or trustee under any First Mortgage. Notwithstanding the foregoing, Landlord will use best efforts to secure, a mutually acceptable SNDA from its lender and provide to Tenant.

18.3 **Short Form Lease**. Should holder of a First Mortgage or any prospective mortgagee require execution of a short form of lease for recording (containing the names of the parties, a description of the Premises, and the term of this Lease) or a certification from Tenant concerning this Lease in such form as may be required by said holder of a First Mortgage or said prospective mortgagee, Tenant agrees to execute promptly such short form of lease or certificate and deliver the same to Landlord within ten (10) days following the request therefore.

ARTICLE 19

MORTGAGEE PROTECTION

Tenant agrees to give any holder of any First Mortgage, as defined in Section 18.1, against the Land or Building, or any interest therein, by registered or certified mail, a copy of any notice or claim of default served upon Landlord by Tenant, provided that prior to such notice Tenant has been notified in writing (by way of service on Tenant of a copy of an assignment of Landlord's interests in leases, or otherwise) of the address of such First Mortgage holder. Tenant further agrees that if Landlord has failed to cure such default within twenty (20) days after such notice to Landlord (or if such default cannot be cured or corrected within that time, then such additional time as may be necessary if Landlord has commenced cure or correction within such twenty (20) days and is pursuing diligently the remedies or steps necessary to cure or correct such default), then the holder of the First Mortgage shall have an additional thirty (30) days within which to cure or correct such default (or if such default cannot be cured or corrected within that time, then such additional time as may be necessary if such holder of the First Mortgage has commenced cure or correction within such thirty (30) days and is pursuing diligently the remedies or steps necessary to cure or correct such default, including the time necessary to obtain possession if possession is necessary to cure or correct such default).

ARTICLE 20

ESTOPPEL CERTIFICATE

Tenant agrees that from time to time within ten (10) days of written request received from Landlord, or the holder of any First Mortgage, Tenant (or any permitted assignee, subtenant, licensee, concessionaire or other occupant of the Premises claiming by, through or under Tenant) will deliver to Landlord or to the holder of any First Mortgage, a statement in writing signed by Tenant (and/or such other party) certifying (a) that this Lease is unmodified and in full force and effect (or if there have been modifications, that this Lease as modified is in full force and effect and identifying the modifications); (b) the date upon which Tenant began paying Rent and the dates to which Rent and other charges have been paid; (c) that Landlord is not in default under any provision of this Lease, or, if in default, the nature thereof in detail; (d) that the Premises have been completed in accordance with the terms hereof and Tenant is in occupancy and paying Rent on a current basis with no rental offsets or claims; (e) that there has been no prepayment of Rent other than that provided for in this Lease; (f) that there are no actions, whether voluntary or involuntary, pending against Tenant under the bankruptcy laws of the United States or any State thereof; and (g) such other matters as may be required by Landlord or the holder of the First Mortgage.

Landlord agrees that from time to time within twenty (20) days of written request received from Tenant, Landlord will deliver to Tenant, a statement in writing signed by Landlord certifying (i) that this Lease is unmodified and in full force and effect (or if there have been modifications, that this Lease as modified is in full force and effect and identifying the modifications); (ii) the date upon which Tenant began paying Rent and the dates to which Rent and other charges have been paid; (iii) that Tenant is not in default under any provision of this Lease, or, if in default, the nature thereof in detail; (iv) that there has been no prepayment of Rent other than that provided for in this Lease; and (v) such other matters as may be required by Tenant.

ARTICLE 21

SUBROGATION AND INSURANCE

21.1 **Waiver of Subrogation**. Landlord and Tenant agree to have all fire and extended coverage and other property damage insurance which may be carried by either of them endorsed with a clause providing that any release from liability of or waiver of claim for recovery from the other party entered into in writing by the insured thereunder prior to any loss or damage shall not affect the validity of such policy or the right of the insured to

recover thereunder, and providing further that the insurer waives all rights of subrogation which such insurer might have against the other party. Without limiting any release or waiver of liability or recovery set forth elsewhere in this Lease, and notwithstanding anything in this Lease which may appear to be to the contrary, each of the parties hereto waives all claims for recovery from the other party for any loss or damage to any of its property insured under valid and collectible insurance policies to the extent of any recovery collectible under such insurance policies. Notwithstanding the foregoing or anything contained in this Lease to the contrary, any release or any waiver of claims shall not be operative, nor shall the foregoing endorsements be required, in any case where the effect of such release or waiver is to invalidate insurance coverage or to invalidate the right of the insured to recover thereunder or to increase the cost thereof (provided that in the case of increased cost, the other party shall have the right, within ten (10) days following written notice thereof, to pay such increased cost and thereby keep such release or waiver in full force and effect).

21.2 **Tenant's Insurance**. Tenant shall carry insurance during the entire Term hereof with terms, coverages and companies (which shall be licensed to do business in the State of New Jersey and shall be rated no lower than A+XV by A.M. Best Company) satisfactory to Landlord and with such increases in limits as Landlord may request from time to time, but initially Tenant shall maintain the following coverages in the following amounts:

(a) Comprehensive or commercial general liability insurance, including contractual liability and the broad or extended liability endorsement, insuring against claims for death, bodily injury, personal injury and property damage occurring upon, in or about the Premises or the Office Complex on an occurrence basis, in an amount not less than One Million Dollars ($1,000,000.00) combined single limit per occurrence, and umbrella coverage in an amount not less than Three Million Dollars ($3,000,000.00), both comprehensive or commercial general liability insurance and umbrella coverage covering Tenant as a named insured and Landlord, the managing agent for the Building and their respective officers, directors, shareholders, partners, members, agents and employees as additional insureds.

(b) Insurance against fire, sprinkler leakage and vandalism, and the extended coverage perils for the full replacement cost of all additions, improvements and alterations to the Premises whether owned, made or installed by or on behalf of Tenant or existing in the Premises as of the date such space is leased to, or occupied by, Tenant, if any, and of all office furniture, trade fixtures, office equipment, merchandise and all other items of Tenant's property on the Premises, with loss or damage payable to Landlord and Tenant as their interests may appear.

(c) Business interruption insurance in such amounts as will reimburse Tenant for direct or indirect loss of earnings attributable to all perils covered by the insurance described in clause (b) above or attributable to prevention or denial of access to the Premises, Building or Project as a result of such perils.

21.3 **Certificates of Insurance**. Tenant shall furnish to Landlord, prior to the commencement of the Term, policies or certificates evidencing such coverage, which policies or certificates shall state that such insurance coverage may not be reduced, cancelled, modified or not renewed without at least thirty (30) days' prior written notice to Landlord, Tenant and any holder of a First Mortgage (unless such cancellation is due to nonpayment of premium, and in that case, only ten (10) days' prior written notice shall be sufficient).

21.4 **Compliance with Requirements**. Landlord hereby represents that to the best of its knowledge to Tenant that as of the date of this Lease and as of the Commencement Date, the Office Complex, including the Premises comply with all applicable laws and ordinances, all court orders and decrees and all requirements of other governmental authorities. Subject to the foregoing, Tenant shall comply and cause the Premises to comply with all applicable laws and ordinances, all court orders and decrees and all requirements of other governmental authorities. Tenant shall not make, directly or indirectly, any use of the Premises which may be prohibited thereby, which may be dangerous to person or property, which may jeopardize any insurance coverage or which may increase the cost

of insurance or require additional insurance coverage. If any insurance policy carried by Landlord or Tenant shall be cancelled or cancellation shall be threatened or the coverage thereunder reduced or threatened to be reduced in any way by reason of the use or occupation of the Premises, the Building or the Project or any part thereof by Tenant, any party claiming by, through or under Tenant or anyone permitted by Tenant to be upon the Premises, and if Tenant fails to remedy the conditions giving rise to said cancellation or threatened cancellation or reduction in coverage on or before the earlier of (i) forty eight (48) hours after notice thereof from Landlord, or (ii) prior to said cancellation or reduction becoming effective, Tenant shall be in default hereunder and Landlord shall have all of the remedies available to Landlord pursuant to this Lease. The parties hereto acknowledge that Landlord shall obtain the Certificate of Occupancy for the Premises.

ARTICLE 22

NONWAIVER

No waiver of any condition expressed in this Lease shall be implied by any neglect of Tenant or Landlord to enforce any remedy on account of the violation of such condition whether or not such violation is continued or repeated subsequently, and no express waiver shall affect any condition other than the one specified in such waiver and that one only for the time and in the manner specifically stated. Without limiting Landlord's rights under Article 9, it is agreed that no receipt of moneys by Landlord from Tenant after the termination in any way of the Term or of Tenant's right to possession hereunder or after the giving of any notice shall reinstate, continue or extend the Term or affect any notice given to Tenant prior to the receipt of such moneys. It is also agreed that after the service of notice or the commencement of a suit or after final judgment for possession of the Premises, Landlord may receive and collect any moneys due, and the payment of said moneys shall not waive or affect said notice, suit or judgment.

ARTICLE 23

TENANT AND LANDLORD REPRESENTATIONS, WARRANTIES AND COVENANTS; QUIET ENJOYMENT

23.1 **Tenant Representations, Warranties and Covenants**. In case Tenant is a corporation, (a) Tenant represents and warrants that this Lease has been duly authorized, executed and delivered by and on behalf of Tenant and constitutes the valid and binding agreement of Tenant in accordance with the terms hereof and (b) if Landlord so requests, Tenant shall deliver to Landlord or its agent, concurrently with the delivery of this Lease executed by Tenant, certified resolutions of the board of directors (and shareholders, if required) authorizing Tenant's execution and delivery of this Lease and the performance of Tenant's obligations hereunder. In case Tenant is a partnership, Tenant represents and warrants that all of the persons who are general or managing partners in the partnership have executed this Lease on behalf of Tenant, or that this Lease has been executed and delivered pursuant to and in conformance with a valid and effective authorization therefore by all of the general or managing partners of such partnership, and constitutes the valid and binding agreement of the partnership and each and every partner therein in accordance with its terms. In case Tenant is a limited liability company, Tenant represents and warrants that all of the persons who are managing members of the limited liability company have executed this Lease on behalf of Tenant, or that this Lease has been executed and delivered pursuant to and in conformance with a valid and effective authorization therefore by all of the managing members of such limited liability company, and constitutes the valid and binding agreement of the limited liability company in accordance with its terms.

23.2 **Landlord Representations, Warranties and Covenants**. Landlord represents and warrants to Tenant that the following are true and correct as of the date hereof, and shall continue to be true and correct as of the Commencement Date, as well as covenants with Tenant as follows: (a) Landlord is a limited liability company duly organized, validly existing and in good standing under the laws of the state of its formation and Landlord has

the requisite power to own and lease those parts of the Office Complex that are subject of this Lease and to the extent stated herein, including, without limitation, the various rights conferred hereby with respect to the Common Areas (including, without limitation, the parking areas) and the Premises, and to carry on its business as and where presently conducted; (b) Landlord has the full right, power and lawful authority to enter into this Lease, to lease the Premises to Tenant, to grant to Tenant the licenses set forth in herein and to perform all of Landlord's obligations hereunder and all proceedings required by, or on the part of, Landlord and/or its principals to authorize Landlord to execute, deliver and carry out this Lease have been duly and properly taken and this Lease constitutes a legal, valid, binding and enforceable obligation of Landlord; (c) the execution and delivery of this Lease by Landlord, and Landlord's compliance with its terms and consummation of the transactions contemplated hereby, to the best of its knowledge will not violate, conflict with, or result in a breach of any provisions of the limited liability company agreement of Landlord, or constitute a default, require third party consent that has not been obtained by Landlord, or result in the creation of a lien or a right of acceleration under, or otherwise result in a breach or violation of, any contract, commitment, indenture, mortgage, easement, restriction, covenant, note, bond, license, lease, deed of trust, or other instrument or obligation, or any judgment, order, or decree of any court, administrative agency, or other governmental authority, to which Landlord or any of its principals is a party or by which the Property (including, without limitation, the Premises) may otherwise be bound; (d) Landlord has insurable fee simple title to the Office Complex (including, without limitation, the Premises, the Common Areas and the parking areas); (e) to the best of Landlord's knowledge all Taxes on the Property are current, and Landlord has received no written notice from any taxing authority, of any special charges, impact fees, or assessments levied, or proposed to be levied, against the Office Complex or any part thereof; (f) to the best of Landlord's knowledge, the Office Complex is in compliance with all applicable laws, including all Environmental Laws (as hereafter defined) and ADA (as hereafter defined) and Landlord has complied, and shall continue to comply, with all applicable laws, including Environmental Laws and ADA, pertaining to and affecting the Office Complex and Landlord to the best of its knowledge has received no notice, that the Office Complex violates any applicable zoning ordinance, fire regulation, building code, health code, or other governmental ordinances, orders, or restrictions and Landlord shall cause the Office Complex, as well as the operation and maintenance thereof, to comply with all applicable laws and Landlord shall, if Tenant's rights under this Lease are adversely affected maintain and keep all covenants, restrictions and other agreements of record affecting the Office Complex or any portion thereof free from any default; (g) except as described in this Lease, there are no written agreements with any municipality, governmental unit, or subdivision relating to the Office Complex or the Building that could result in any increased Expense; (h) there is no pending or, to the best of Landlord's knowledge, threatened condemnation or similar proceeding affecting the Office Complex or any part thereof (including, without limitation, the Building and/or any of the Common Areas), and Landlord is not aware of any facts or circumstances that might result in such a suit or other proceedings; and (i) all structural aspects of the Premises (including, without limitation, the foundations) are to the best of Landlord's knowledge, and shall be at the time the Premises are delivered to Tenant, in good physical condition, free from defects.

23.3 **Quiet Enjoyment**. Landlord hereby covenants and agrees that Tenant (and all other permitted transferees), upon paying the Rent and keeping the covenants of this Lease, shall have the right to lawfully and quietly hold, occupy, and enjoy the Premises during the Term without any interference, ejection or molestation.

ARTICLE 24

REAL ESTATE BROKERS

Tenant represents that Tenant has dealt with and only with Cornerstone Real Estate Group LLC and Cushman and Wakefield whose commission, if any, shall be paid by Landlord pursuant to a separate agreement. Both parties hereto agree to protect, indemnify and hold harmless the other from and against any and all expenses with respect to any compensation, commissions and charges claimed by any other broker, agent or finder not identified above with respect to this Lease or the negotiation thereof that is made by reason of any action or agreement by such party. Landlord shall pay any fees owed to Cornerstone Real Estate Group LLC and Cushman and Wakefield in connection with this Lease pursuant to a separate agreement.

ARTICLE 25

NOTICES

All notices, demands and requests which may be given or which are required to be given by either party to the other must be in writing. All notices, demands and requests by Landlord or Tenant shall be (i) delivered personally, (ii) sent by a recognized overnight courier, or (iii) sent by United States certified mail, postage prepaid, and addressed as follows or at such substitute addresses as may be specified by either party by written notice furnished to the other in accordance herewith:

If to Landlord: 150 Allen Road LLC
788 Morris Turnpike
Short Hills, NJ 07078
Attention: Mark Steinbauer, VP Real Estate

If to Tenant: Electrocore, LLC
150 Allen Road, Suite 201
Liberty Corner, NJ 07920
Attention: JP Errico

With a copy to: SNR Denton US LLP
101 JFK Parkway
Short Hills, NJ 07078-2708
Attention: John L. Cleary, II

Notices, demands and requests delivered in the manner provided hereinabove will be deemed received: (i) upon receipt or refusal, if delivered personally, (ii) if sent by recognized overnight courier, on the next business day following deposit therewith, and (iii) if sent by certified mail, three (3) business days after the date of postmark thereof. Notices and demands from Landlord to Tenant may be signed by Landlord, its beneficiaries, the managing agent for the Real Property or the agent of any of them.

ARTICLE 26

ENVIRONMENTAL MATTERS

26.1 **Tenant's Obligations with Respect to Environmental Matters**. Nothing contained in the Lease shall be deemed or construed to place responsibility upon Tenant for any Hazardous Materials located in on or about the Premises which was not actually deposited in the Premises by Tenant after the Commencement Date. Tenant hereby represents, warrants and covenants that, during the Term of this Lease, (i) Tenant shall comply at its sole cost and expense with all federal, state and local statutes, ordinances, regulations and rules in effect and as amended from time to time relating to Hazardous Materials, environmental quality, health, safety, contamination and cleanup, including, without limitation, the Clean Air Act, 42 U.S.C. Section 7401 et seq; the Clean Water Act,

33 D.S.C. Section 1251 et seq., and the Water Quality Act of 1987; the Occupational Safety and Health Act, 29 D.S.C. Section 651 et seq.; the Resource Conservation and Recovery Act ("**RCRA**"), 42 U.S.C. Section 6901 et seq., as amended by the Hazardous and Solid Waste Amendments of 1984; the Safe Drinking Water Act, 42 D.S.C. Section 300f et seq.,; the Comprehensive Environmental Response, Compensation and Liability Act ("**CERCLA**"), 42 U.S.C. Section 9601 et seq., as amended by the Superfund Amendments and Reauthorization Act, the Emergency Planning and Community Right-to-Know Act, and the Radon Gas and Indoor Air Quality' Research Act; the Toxic Substances Control Act, 15 U.S.C. Section 2601 et seq.; the New Jersey Environmental Cleanup Responsibility Act, as amended by the Industrial Site Recovery Act, N.J.S.A. 13:1K-6 et seq. ("**ISRA**"), the New Jersey Spill Compensation and Control Act, as amended, N.J.S.A. 58:10-23.11b et seq.; and all state, regional, county, municipal, and other local laws, regulations, and ordinances insofar as they are equivalent or similar to the federal laws recited above or purport to regulate Hazardous Materials ("**Environmental Laws**"). "**Hazardous Materials**" shall mean and include the following, including mixtures thereof: any hazardous substance, pollutant, contaminant, waste, by-product or constituent regulated under any Environmental Law, including but not limited to oil, petroleum products, natural gas, natural gas liquids, liquified natural gas and synthetic gas usable for fuel, pesticides, asbestos, asbestos-containing materials and PCBs; (ii) Tenant shall not install any underground storage tanks without prior written disclosure to and prior written approval by Landlord; (iii) Tenant shall not take any action that would subject the Premises to the permit requirements under RCRA for storage, treatment or disposal of Hazardous Materials; (iv) Tenant shall not dispose of Hazardous Materials in dumpsters provided by Landlord for tenant use; (v) Tenant shall not discharge Hazardous Materials into Project drains or sewers; (vi) Tenant shall not cause or allow the Release of any Hazardous Materials on, to or from the Project or land. For purposes of this Article 26, "**Release**" or "**Released**" shall mean any actual or threatened spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing of Hazardous Materials into the environment; and (vii) if Tenant's use, including treatment, storage and disposal of Hazardous Materials at the Premises (a) gives rise to liability or to a claim under any Environmental Law, or any common law theory of tort or otherwise, (b) causes a threat to, or endangers human health or the environment, or (c) creates a nuisance or trespass, Tenant shall, at its sole cost and expense, promptly take all actions as are necessary to return the Premises or any adjacent property to the condition existing prior to the introduction of any such Hazardous Material and to comply with all applicable Environmental Laws and eliminate or avoid any liability claim with respect thereto. Landlord's written approval of such actions to be taken with respect to the Premises or any adjacent property shall first be obtained.

(a) Tenant represents to Landlord that Tenant's NAICS Number as designated in the Standard Industrial Classification Manual prepared by the Office of Management and Budget in the Executive Office of the President of the United States will not subject the Premises to ISRA applicability. Any change by Tenant to an operation with an NAICS Number subject to ISRA shall require Landlord's prior written consent. Any such proposed change shall be sent in writing to Landlord sixty (60) days prior to the proposed change. Landlord, at its sole option, may withhold consent.

(b) Tenant hereby agrees to execute such documents as Landlord reasonably deems necessary and to make such applications as Landlord reasonably requires to assure compliance with ISRA. Tenant shall bear all costs and expenses incurred by Landlord associated with any required ISRA compliance resulting from Tenant's use of the Premises including but not limited to state agency fees, engineering fees; cleanup costs, filing fees and suretyship expenses. As used in this Lease, ISRA compliance shall include applications for determinations of nonapplicability by the appropriate governmental authority. The foregoing undertaking shall survive the termination or sooner expiration of the Lease and surrender of the Premises and shall also survive sale or lease or assignment of the Premises by Landlord. Tenant shall immediately provide Landlord with copies of all correspondence, reports, notices, orders, findings, declarations and other materials pertinent to Tenant's compliance and the requirements of the New Jersey Department of Environmental Protection ("**NJDEP**") under ISRA as they are issued or received by Tenant.

(c) In the event Tenant fails to comply with ISRA as stated in this Article 26 or any other governmental law as of the termination or sooner expiration of this Lease, and as a consequence thereof, Landlord is unable to rent the Premises, then Landlord shall treat Tenant as one who has not removed at the end of its Term, and thereupon be entitled to all remedies against Tenant provided by law in that situation, including a monthly rental of two hundred percent (200%) of the Monthly Base Rent for the last month of the Term of this Lease or any renewal term, payable in advance on the first day of each month, until such time as Tenant provides Landlord with a negative declaration or confirmation that any required cleanup plan has been successfully completed.

26.2 **Landlord's Right to Inspect**. Landlord and Landlord's employees shall have the right to enter the Premises and conduct such inspections or tests, including soil and groundwater sampling, as Landlord in its sole discretion deems appropriate or necessary, for the purpose of determining Tenant's compliance with Tenant's environmental obligations pursuant to this Lease and this Article 26. Tenant agrees to cooperate with such investigations and to provide any relevant information requested by Landlord.

26.3 **Copies of Notices and Documentation**. Within ten (10) days of Tenant's receipt of a written request by Landlord, Tenant shall provide Landlord with (i) copies of all environmental reports and tests obtained by Tenant; (ii) copies of transportation and disposal contracts (and related manifests, schedules, reports, and other information) entered into or obtained by Tenant with respect to any Hazardous Materials; (iii) copies of any permits issued to Tenant under Environmental Laws with respect to the Premises; (iv) copies of any and all reports, notifications, and other filings made by Tenant to any federal, state, or local environmental authorities or agencies; and (v) any other applicable documents and information with respect to environmental matters relating to the Premises. During the Term of this Lease, Tenant shall provide Landlord promptly with copies of all summonses, citations, directives, information inquiries or requests, notices of potential responsibility, notices of violation or deficiency, orders or decrees, claims, complaints, investigations, judgments, letters, notices of environmental liens or response actions in progress, and other communications, written or oral, actual or threatened, from any federal, state, or local agency or authority, or any other entity or individual, concerning (i) any actual or alleged Release of a Hazardous Material on, to or from the Premises; (ii) the imposition of any lien on the Premises; (iii) any actual or alleged violation of, or responsibility under, any Environmental Laws; or (iv) any actual or alleged liability under any theory of common law tort or toxic tort, including without limitation, negligence, trespass, nuisance, strict liability, or ultra hazardous activity.

26.4 **Landlord's Right to Act**. In the event that Tenant shall fail to comply with any of its obligations under this Article 26 as and when required hereunder, Landlord shall have the right (but not the obligation) to take such action as is required to be taken by Tenant hereunder and in such event, Tenant shall be liable and responsible to Landlord for all costs, expenses, liabilities, claims and other obligations paid, suffered, or incurred by Landlord in connection with such matters. Tenant shall reimburse Landlord immediately upon demand for all such amounts for which Tenant is liable.

26.5 **Indemnification**. Notwithstanding anything contained in this Lease to the contrary, Tenant shall reimburse, defend, indemnify and hold Landlord, and its beneficiaries, officers, directors, shareholders, employees, and agents, free and harmless from and against any and all claims, response costs, losses, liabilities, damages, costs, and expenses, including, but not limited to, the costs and expenses of investigations, studies, health or risk assessments and consulting fees, and including, without limitation, loss of rental income, loss due to business interruption, and reasonable attorneys' fees and costs, arising out of or in any way connected with any or all of the following:

(i) any Hazardous Materials which, at any time during the Term, are or were actually or allegedly generated, stored, treated, released, disposed of, used or otherwise located on or at the Premises by Tenant, including but not limited to, any and all (a) liabilities under any common law theory of tort, nuisance, strict liability, ultra hazardous activity, negligence or otherwise based

upon, resulting from or in connection with any Hazardous Material; and (b) obligations to take response, cleanup or corrective action pursuant to any investigation or remediation in connection with the decontamination, removal, transportation, incineration, or disposal of any of the foregoing; and

(ii) any actual or alleged illness, disability, injury, or death of any person in any manner arising out of or allegedly arising out of exposure to Hazardous Materials present at the Premises, regardless of when any such illness, disability, injury, or death shall have occurred or been incurred or manifested itself; and

(iii) any actual or alleged failure of Tenant or the Premises at any time and from time to time to comply with all applicable Environmental Laws, whether before or after the effective date of this Lease; and

(iv) any failure by Tenant to comply with its obligations under this Article 26. In the event any claims or other assertion of liability shall be made against Landlord for which Landlord is entitled to indemnity hereunder, Landlord shall notify Tenant of such claim or assertion of liability and thereupon Tenant shall, at its sole cost and expense, assume the defense of such claim or assertion of liability and continue such defense at all times thereafter until completion. The obligations of Tenant under this Article 26 shall survive any termination or expiration of this Lease.

Notwithstanding the foregoing, Landlord will hold harmless and will indemnify Tenant for any pre-existing environmental conditions at the Premises. To the best of Landlord's knowledge, the Building is free of environmental conditions.

ARTICLE 27

SECURITY DEPOSIT

27.1 **Security Deposit**. Upon execution of this lease Tenant will deposit with Landlord the sum of One hundred and one thousand four hundred seventy seven dollars and twenty five cents ($101,477.25) as security ("**Security Deposit**") for the full and faithful performance of every provision of this Lease to be performed by Tenant. If Tenant is in Default with respect to any provision of this Lease, including, but not limited to, the provisions relating to the payment of Rent, Landlord may use, apply or retain all or any part of the security deposit for the payment of any Rent and any other sum with respect to which Tenant is in Default, or for the payment of any other amount which Landlord may spend or become obligated to spend by reason of Tenant's Default or to compensate Landlord for any other loss or damage which Landlord may suffer by reason of Tenant's Default. If any portion of the security deposit is to be used or applied, Tenant, within five (5) days after written demand therefore, shall deposit cash with Landlord in an amount sufficient to restore the security deposit to its original amount and Tenant's failure to do so shall be a material breach of this Lease. Landlord shall not be required to keep the security deposit separate from its general funds and Tenant shall not be entitled to interest on any security deposit. Provided Tenant has not been in default under the Lease, the Security Deposit, will be reduced by one (1) month following the completion of every two (2) years of the Lease. If Tenant fully and faithfully performs every provision of this Lease to be performed by it, the security deposit or any balance thereof shall be returned to Tenant (or at Landlord's option to the last assignee of Tenant's interest hereunder) within thirty (30) days after the expiration of the Term and Tenant's vacation of the Premises.

27.2 **Transfer of Security Deposit**. Tenant hereby agrees not to look to any mortgagee as mortgagee, mortgagee in possession, or successor in title to the Building for accountability for any security deposit required by Landlord hereunder, unless said sums have actually been received by said mortgagee as security for Tenant's

performance of this Lease. Landlord may deliver the funds deposited hereunder by Tenant to the purchaser of Landlord's interest in the Building, in the event that such interest is sold, and thereupon Landlord, and its beneficiaries, if any, shall be discharged from any further liability with respect to such security deposit.

ARTICLE 28

INTENTIONALLY DELETED

ARTICLE 29

TITLE AND COVENANT AGAINST LIENS

Landlord's title is paramount and always shall be paramount to the title of Tenant and nothing contained in this Lease shall empower Tenant to do any act which can, shall or may encumber the title of Landlord. Tenant covenants and agrees not to do any act, make any contract or suffer or permit anything to occur which may create or be the foundation for any lien or other encumbrance upon or against the Premises, the Building, the Land, the Project or against Tenant's leasehold interest in the Premises and, in case of any such lien attaching, to pay and remove the same immediately. Tenant has no authority or power to cause or permit any lien or encumbrance of any kind whatsoever, whether created by act of Tenant, operation of law or otherwise, to attach to or be placed upon the Premises, the Building, the Project or the Land, and any and all liens and encumbrances created by Tenant shall attach only to Tenant's interest in the Premises. If any such liens so attach and Tenant fails to pay and remove the same within twenty (20) days, Landlord, at its election, may pay and satisfy the same and in such event the sums so paid by Landlord, with interest from the date of Landlord's payment thereof at the rate set forth in Section 30.8 for amounts owed to Landlord by Tenant, shall be deemed to be additional rent due and payable by Tenant at once without notice or demand. All materialmen, contractors, artisans, mechanics, laborers, and any other persons now or hereafter contracting with Tenant or any contractor or subcontractor of Tenant for the furnishing of any labor services, materials, supplies, or equipment with respect to any portion of the Premises, at any time from the date hereof until the end of the Term, are hereby charged with notice that they look exclusively to Tenant to obtain payment for same.

In the event Tenant, its subtenants or assigns acquires and/or leases personal property to be installed and used upon the Premises, Landlord hereby waives any claim arising by way of any Landlord's lien (whether created by statute, contract or otherwise) with respect to such personal property and agrees to execute and deliver to any such secured creditor and/or lessor a waiver of any lien Landlord may have upon such personal property.

ARTICLE 30

MISCELLANEOUS

30.1 **Successors and Assigns**. Each provision of this Lease shall extend to and shall bind and inure to the benefit not only of Landlord and Tenant, but also of their respective heirs, legal representatives, successors and assigns, but this provision shall not operate to permit any transfer, assignment, mortgage, encumbrance, lien, charge or subletting contrary to the provisions of this Lease.

30.2 **Modifications in Writing**. No modification, waiver or amendment of this Lease or of any of its conditions or provisions shall be binding upon either party unless in writing signed by Landlord and Tenant.

30.3 **No Option; Irrevocable Offer**. Submission of this instrument for examination shall not constitute a reservation of or option for the Premises or in any manner bind Landlord and no lease or obligation on Landlord shall arise until this instrument is signed and delivered by Landlord and Tenant; provided, however, the execution and delivery by Tenant of this Lease to Landlord or the agent of Landlord's beneficiary, if any, shall constitute an irrevocable offer by Tenant to lease the Premises on the terms and conditions herein contained, which offer may not be revoked for ten (10) days after such delivery.

30.4 **Definition of Tenant**. The word "**Tenant**" whenever used herein shall be construed to mean the party named above as Tenant or anyone or more of them in all cases where there is more than one party named above as Tenant; and the necessary grammatical changes required to make the provisions hereof apply either to corporations, partnerships or other entities or individuals shall in all cases be assumed as though in each case fully expressed. In all cases where there is more than one party named above as Tenant, the liability of each shall be joint and several.

30.5 **Definition of Landlord**. The term "**Landlord**" as used in this Lease means only the owner or owners at the time being of the Building, so that in the event of any assignment, conveyance or sale, once or successively, of the Building, or any assignment of this Lease by Landlord, said Landlord making such sale, conveyance or assignment shall be and hereby is entirely freed and relieved of all covenants and obligations of Landlord hereunder accruing after such sale, conveyance or assignment, and Tenant agrees to look solely to such purchaser, grantee or assignee with respect thereto, provided however that Tenant may seek recourse against Landlord with respect to all covenants and obligations of Landlord hereunder accruing prior to such sale, conveyance or assignment. This Lease shall not be affected· by any such assignment, conveyance or sale, and Tenant agrees to attorn to the purchaser, grantee or assignee.

30.6 **Headings**. The headings of Articles and Sections are for convenience only and do not limit, expand or construe the contents of the Articles and Sections.

30.7 **Time of Essence**. Time is of the essence of this Lease and of all provisions hereof.

30.8 **Default Rate of Interest**. All amounts, including, without limitation, Base Rent and Rent Adjustments, owed by Tenant to Landlord pursuant to any provision of this Lease shall bear interest from the date due until paid at the annual rate of three percent (3 %) in excess of the rate of interest announced from time to time by the national banking association which has the largest assets of all national banking associations with headquarters in New York, New York, as its prime, reference or corporate base rate, changing as and when said prime, reference or corporate base rate changes, unless a lesser rate is then the maximum rate permissible by law with respect thereto, in which event said lesser rate shall be charged.

30.9 **Severability**. The invalidity of any provision of this Lease shall not impair or affect in any manner the validity, enforceability or effect of the rest of this Lease.

30.10 **Entire Agreement**. All understandings and agreements, oral or written, previously made between the parties hereto are merged in this Lease, which alone fully and completely expresses the agreement between Landlord (and its beneficiaries, if any, and their agents) and Tenant. This Lease cannot be amended or modified except by a written instrument executed by Landlord and Tenant.

30.11 **Force Majeure**. If Landlord fails to perform timely any of the terms, covenants or conditions of this Lease to be performed by Landlord and such failure is due in whole to any strike, lockout, labor trouble, civil disorder, inability to procure materials, failure of power, restrictive governmental laws or regulations, riots, insurrections, war, fuel shortages, accidents, casualties, acts of God, acts caused directly or indirectly by Tenant, or by Tenant's agents, employees, contractors, licensees or invitees, or any other cause beyond the reasonable control of Landlord, then Landlord shall not be deemed in default under this Lease as a result of such failure and any time for performance by Landlord provided for herein shall be extended by the period of delay resulting from such cause.

30.12 **Choice of Law**. This Lease shall be governed by and all of its terms construed according to the laws of the State of New Jersey.

30.13 **Relationship**. The relationship of Landlord and Tenant hereunder is solely that of landlord and tenant and the parties disclaim any intention to create a joint venture, partnership or agency relationship.

30.14 **No Recording**. Except as provided in Section 18.4, Tenant shall not record this Lease or any memorandum or short form of this Lease without the prior written consent of Landlord, which may be withheld in Landlord's sole and absolute discretion.

ARTICLE 31

AMERICANS WITH DISABILITIES ACT

The parties acknowledge that the Americans With Disabilities Act of 1990 (42 U.S.C. § 12101 et seq.) and regulations and guidelines promulgated thereunder, as all of the same may be amended and supplemented from time to time (collectively referred to herein as the "**ADA**") establish requirements under Title III of the ADA ("**Title III**") pertaining to business operations, accessibility and barrier removal, and that such requirements may be unclear and may or may not apply to the Premises and the Building depending on, among other things: (1) whether Tenant's business operations are deemed a "place of public accommodation" or a "commercial facility," (2) whether compliance with such requirements is "readily achievable" or "technically infeasible," and (3) whether a given alteration affects a "primary function area" or triggers so called "path of travel" requirements. The parties acknowledge and agree that Tenant has been provided an opportunity to inspect the Premises and the Building sufficient to determine whether or not the Premises and the Building in their condition current as of the date hereof deviate in any manner from the ADA Accessibility Guidelines ("**ADAAG**") or any other requirements under the ADA pertaining to the accessibility of the Premises or the Building. Tenant further acknowledges and agrees that except as may otherwise be specifically provided herein, Tenant accepts the Premises and the Building in "as-is / where-is'' condition and agrees that Landlord makes no representation or warranty as to whether the Premises or the Building conform to the requirements of the ADAAG or any other requirements under the ADA pertaining to the accessibility of the Premises or the Building. Tenant has prepared or reviewed the plans and specifications for the Work (as such term is defined in the Work Letter) and has independently determined that such plans and specifications are in conformance with the ADAAG and any other requirements of the ADA. Tenant further acknowledges and agrees that to the extent that Landlord prepared, reviewed or approved any of those plans and specifications, such action shall in no event be deemed any representation or warranty that the same comply with any requirements of the ADA.

Notwithstanding anything to the contrary in this Lease, the parties hereby agree to allocate responsibility for Title III compliance as follows: (a) Tenant shall be responsible for all Title III compliance and costs in connection with the Premises, including structural work, if any, and including any leasehold improvements or other work to be performed in the Premises under or in connection with this Lease except for the initial build out which will be the sole responsibility of the Landlord, and (b) Landlord shall perform, and Tenant shall be responsible for the cost of, any so-called Title III "path of travel" requirements triggered by any construction activities or alterations in the Premises. Except as set forth above with respect to Landlord's Title III obligations, Tenant shall be solely responsible for all other requirements under the ADA relating to Tenant or any affiliates or persons or entities related to Tenant (collectively, "**Affiliates**"), operations of Tenant or Affiliates, or the Premises, including, without limitation, requirements under Title I of the ADA pertaining to Tenant's employees.

To the best of Landlord's knowledge, the Premises and Building are ADA complaint.

ARTICLE 32

EXCULPATORY PROVISIONS

It is understood and agreed expressly by and between the parties hereto, anything herein to the contrary notwithstanding, that each and all of the representations, warranties, covenants, undertakings and agreements made herein on the part of Landlord, while in form purporting to be the representations, warranties, covenants, undertakings and agreements of Landlord, are nevertheless each and every one of them made and intended, not as personal representations, warranties, covenants, undertakings and agreements by Landlord or for the purpose or with the intention of binding Landlord personally, but are made and intended for the purpose only of subjecting Landlord's interest in the Building, the Land and the Premises to the terms of this Lease and for no other purpose whatsoever, and in case of default hereunder by Landlord, Tenant shall look solely to the interests of Landlord in the Building and Land; that Landlord shall have no personal liability whatsoever to pay any indebtedness accruing hereunder or to perform any covenant, either express or implied, contained herein; and that no personal liability or personal responsibility of any sort is assumed by, nor shall at any time be asserted or enforceable against, said Landlord, individually or personally, on account of any representation, warranty, covenant, undertaking or agreement of Landlord in this Lease contained, either express or implied, all such personal liability, if any, being expressly waived and released by Tenant and by all persons claiming by, through or under Tenant.

ARTICLE 33

PATRIOT ACT

Landlord and Tenant represent and warrant that they are not acting, directly or indirectly, for or on behalf of any person, group, entity, or nation named by the United States Treasury Department as a Specially Designated National and Blocked Person, or for or on behalf of any person, group, entity, or nation designated in Presidential Executive Order 13224 as a person who commits, threatens to commit, or supports terrorism; and that they are not engaged in this transaction directly or indirectly on behalf of, or facilitating this transaction directly or indirectly on behalf of, any· such person, group, entity, or nation. Each party hereby agrees to defend, indemnify, and hold harmless the other party from and against any and all claims, damages, losses, risks, liabilities, and expenses (including reasonable attorneys' fees and costs) arising from or related to any breach of the foregoing representation and warranty.

ARTICLE 34

EMERGENCY DIRECTIVES

Notwithstanding anything contained in this Lease to the contrary, Tenant and all persons within the Premises or within or under Tenant's control, shall comply with any and all reasonable orders and directives that may be given by Landlord (or its agents, including for these purposes only, building management and security personnel) to Tenant in connection with Landlord's reasonable, good faith belief that there exists an life-threatening emergency or an imminent and material destruction of the Building and/or the Premises, which may include, among other things, for Tenant and its agents, employees, contractors and those under Tenant's control, to vacate the Premises and/or the Building and/or not enter or re-enter the Premises and/or the Building. Without limiting the foregoing: (a) Tenant shall designate, in writing, a person or persons who shall serve as its emergency contact for purposes of this Article 34; (b) notices and directives under this Article 34 may be given orally or in writing or by any other reasonable means (including, if applicable, the public address system of the Building); (c) if so directed by Landlord or its agents, all persons within the Premises and persons outside the Premises and within Tenant's control shall immediately vacate the Building and/or not enter or re-enter the Premises and/or the Building in accordance with Landlord's direction; (d) Landlord shall have the right with reasonable advance notice to Tenant to conduct -a reasonable number of "fire drills" during Business Hours in any calendar year, and Tenant shall

comply with the direction given by Landlord or its agents in connection with such "fire drills" as if a real emergency existed; and (e) without limiting Landlord's rights and remedies in connection with Tenant's obligations under this Article 34, (i) Tenant shall indemnify, defend (with counsel reasonably acceptable to Landlord) and hold harmless Landlord and Landlord's agents, employees, contractors, officers, directors and partners from and against any and all loss, claim, expense, suit, damage, injury and/or liability (including reasonable attorneys' fees and court costs) which arise out of or in connection with any failure by Tenant or any person within the Premises or within Tenant's control to comply with the provisions of this Article 34, and (ii) except for the gross negligence or willful misconduct of Landlord, Tenant on its behalf and on behalf of its employees, officers, directors and partners hereby waives and releases Landlord and Landlord's agents, employees, contractors, officers, directors and partners from and against any and all claims expenses, suits, damages, injuries and/or liabilities (including, without limitation, reasonable attorneys' fees and court costs) that arise out of any actions by Landlord in accordance with this Article 34 or the failure by Tenant to comply with this Article 34.

ARTICLE 35

OPTION TO EXTEND

Provided that Tenant is not then in Default under this Lease, and provided further that this Lease shall not have theretofore been assigned, Tenant shall have the right, at Tenant's option, to extend the Term of this Lease for one (1) additional period of five (5) years (such additional period being herein referred to as the "**Optional Extension Term**"), Such option to extend (the "**Option to Extend**") shall be exercised by Tenant giving written notice of the exercise thereof to Landlord at least nine (9) months before the Expiration Date. The Optional Extension Term shall be upon the same terms, covenants, and conditions as set forth in this Lease with respect to the Term, except that (a) Landlord shall have no obligation whatsoever to alter, improve or remodel the Premises and (b) the Base Rent and Rent Adjustments payable during the Optional Extension Term, if exercised, shall equal to 95% of the then-prevailing Fair Market Rental· Rate for the Premises, as defined below. At any time within twelve (12) months prior to the Expiration Date, Tenant may request in writing that Landlord provide Tenant with its determination of the Fair Market Rental Rate for this Premises which shall apply during the Optional Extension Term and Landlord shall furnish same in writing to Tenant within thirty (30) days after such request. For purposes of this Article 35, the term "**Fair Market Rental Rate**" shall mean a rate comprised of the average annual base rental and additional rental rates per square foot of rentable area (including one hundred percent (100%) of any escalation of any such base rental and additional rental rates based upon a fixed step and/or index), then being offered by Landlord for comparable space in the Building for a comparable term on an "as is" basis, taking into account any tenant improvement allowance or other leasing concessions, if any, offered by Landlord in connection therewith, but in no event less than the full escalated base rental and additional rental payable in the final year of the initial Term of this Lease.

ARTICLE 36

LANDLORD BUILDOUT

a) Landlord will at its sole cost and expense provide to Tenant a turnkey buildout utilizing standard parts, finishes and materials for tenant improvements pursuant to a work letter ("**Work Letter**") attached hereto as **Exhibit E**. The Tenant Improvements ("**Tenant Improvements**") for the Premises are more particularly described as **Exhibit E-1**.

b) Landlord, at Landlord's sole cost and expense, will provide a space plan for Tenant's review and revision, if needed.

ARTICLE 37

SIGNAGE

Landlord will provide at its sole cost and expense a standard building monument at Allen Road, building directory and suite entry door signage.

ARTICLE 38

TENANT ALLOWANCES

38.1 Tenant will be provided with an Architectural Allowance ("**Architectural Allowance**") of $0.10 per square foot from Landlord. Tenant will provide Landlord with receipts for payment and Landlord will reimburse Tenant for its architectural costs, in an amount not to exceed the Architectural Allowance, within thirty (30) days after receipt of Tenant's invoices therefor provided such invoices are not in dispute.

38.2 Tenant will be provided with a moving allowance ("**Moving Allowance**") of $7.00 per square foot to be used for Tenant relocation to the Premises. Tenant will provide Landlord with receipts for payment and Landlord will reimburse Tenant for its moving costs, in an amount not to exceed the Moving Allowance, within thirty (30) days after receipt of Tenant's invoices therefor provided such invoices are not in dispute. In the event that any Moving Allowance is unused following the completion of the move, Tenant can apply the remainder as a credit against rent.

[EXECUTION PAGE FOLLOWS]

IN WITNESS WHEREOF, the parties hereto have caused this Lease to be executed as of the date first written above.

LANDLORD:

150 Allen Road LLC a New Jersey limited liability company

By: /s/ Blake Sherman
Name: Blake Sherman
Its: Member

TENANT:

Electrocore, LLC, a Delaware limited liability company

By: /s/ J.P. Errico
Name: J.P. Errico
Its: Authorized Officer

Exhibit 10.22

NEITHER THIS WARRANT NOR THE SECURITIES FOR WHICH THIS WARRANT IS EXERCISABLE HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT") NOR ANY OTHER SECURITIES LAWS AND MAY NOT BE OFFERED FOR SALE, SOLD, DELIVERED AFTER SALE, TRANSFERRED, PLEDGED OR HYPOTHECATED IN THE ABSENCE OF (1) AN EFFECTIVE REGISTRATION STATEMENT COVERING THE SALE OF THIS WARRANT OR THE SECURITIES FOR WHICH THIS WARRANT IS EXERCISABLE UNDER THE ACT AND ANY OTHER APPLICABLE SECURITIES LAWS, OR (2) AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED.

THE SALE, TRANSFER, ASSIGNMENT OR OTHER DISPOSITION OF THIS WARRANT AND THE SECURITIES FOR WHICH THIS WARRANT IS EXERCISABLE, WHETHER VOLUNTARY, INVOLUNTARY, OR BY OPERATION OF LAW, IS SUBJECT TO SUBSTANTIAL RESTRICTIONS ON TRANSFER AS SET FORTH HEREIN AND IN THE OPERATING AGREEMENT (AS DEFINED BELOW). COPIES OF SUCH AGREEMENT MAY BE OBTAINED FROM THE COMPANY BY REQUESTING SUCH AGREEMENT IN WRITING ADDRESSED TO THE CHIEF EXECUTIVE OFFICER OF THE COMPANY AT ITS PRINCIPAL EXECUTIVE OFFICE.

ELECTROCORE, LLC

WARRANT TO PURCHASE COMMON UNITS

Original Issue Date: , 2017

FOR VALUE RECEIVED, ELECTROCORE, LLC, a Delaware limited liability company (the "Company"), hereby certifies that , or its registered transferees, successors or assigns (each person or entity holding all or part of this Warrant being referred to as a "Holder"), is the registered holder of this warrant (the "Warrant") to subscribe for and purchase, from time to time up to the Expiration Time, up to the number of Warrant Units at a purchase price per unit equal to the Warrant Price, subject to the provisions and upon the terms and conditions hereinafter set forth. Capitalized terms used herein and not otherwise defined herein shall have the respective meanings ascribed to such terms in the Operating Agreement (as defined below).

Reference is hereby made to the Series B Preferred Unit financing by the Company (the "Offering") conducted beginning in August 2017 of up to $65,000,000 (subject to increase with Board approval) of Series B Preferred Units and related common warrants, at one or more closings pursuant to a Series B Preferred Unit Purchase Agreement dated as of August 18, 2017 (as such agreement may be amended from time to time, the "Series B Purchase Agreement") by and among the Company and the purchasers party thereto. This Warrant is being issued pursuant to the Series B Purchase Agreement.

The Company and Holder herby agree as follows:

Article 1. Definitions. For purposes of this Warrant, the following terms shall have the following definitions:

1.1 "Business Day" means any day other than a Saturday or Sunday on which commercial banks located in New Jersey are open for the general transaction of business.

1.2 "Current Market Price" means a price per Warrant Unit determined mutually by the Board of Directors and the Holder or, if the Board of Directors and the Holder shall fail to agree, at the Company's expense by an appraiser chosen by the Board of Directors and reasonably acceptable to the Holder; provided that in the event exercised in connection with an IPO or a Merger Event, then the Current Market Price shall be deemed to be the (i) lowest offering price in an IPO or (ii) the per Warrant Unit value in the Merger Event, respectively. Any determination of the Market Price by an appraiser shall be based on a valuation of the Company as an entirety without regard to any discount for minority interests or disparate voting rights among classes of capital stock.

1.3 "Expiration Time" means the earlier of (x) 5:00 p.m. Eastern Standard Time on August 31, 2022, (y) the sale by the Company or its successor of its equity securities to the public in a firm commitment underwriting ("an "IPO") pursuant to a registration statement filed pursuant to the Securities Act of 1933, as amended, and (z) as provided in Section 4.3(iii), if applicable, upon the closing of a Merger Event; provided that in the event that the Warrant has not been exercised prior to the Expiration Time in connection with a Merger Event, the Warrant shall be deemed to have been automatically exercised immediately prior to such time in accordance with Section 2.1(e).

1.4 "GAAP" means generally accepted accounting principles as in effect in the United States on the date hereof, consistently applied.

1.5 "Operating Agreement" means the Second Amended and Restated Limited Liability Company Operating Agreement of the Company dated as of August 18, 2017, as such agreement may be further amended from time to time.

1.6 "Noncompensatory Option" has the meaning set forth in Treasury Regulation Section 1.721-2(f).

1.7 "Warrant Coverage Amount" means an amount equal to fifty percent (50%) of the aggregate purchase price for the Series B Preferred Units purchased by Purchaser pursuant to the Purchase Agreement divided by the Warrant Price.

1.8 "Warrant Price" means $1.25 (subject to adjustment as provided herein).

1.9 "Warrant Units" means the number of Common Units (or Common Stock to be issued in exchange for Common Units as contemplated by Section 11.7 of the Operating Agreement) equal to the quotient obtained by dividing the Warrant Coverage Amount by the Warrant Price.

Article 2. Exercise; Capital Account Adjustments.

2.1 Method of Exercise; Payment; Issuance of New Warrant.

(a) Subject to the provisions hereof, the Holder may exercise this Warrant, in whole or part and from time to time prior to the Expiration Time, by the surrender of this Warrant (together with the Notice of Exercise attached hereto as **Appendix A** duly executed and completed) at the principal office of the Company, or such other office or agency of the Company as it may reasonably designate by written notice to the Holder, during normal business hours on any Business Day (the date of surrender may hereinafter be referred to as an "Exercise Date"). In the event that the Warrant is automatically exercised in accordance herewith in connection with a Merger Event, a Notice of Exercise shall not be required.

(b) On the Exercise Date, subject to Section 2.1(e), the Holder shall deliver to the Company payment by the Holder in cash, certified check payable to the Company or wire transfer of immediately available funds to an account designated to the Holder by the Company of an amount equal to the Warrant Price multiplied by the number of Warrant Units then being purchased pursuant to the exercise of this Warrant (the "Exercise Price"). The Holder (or such other person or persons as directed by the Holder) shall be treated for all purposes as the holder of record of such Warrant Units as of the close of business on the date on which the Holder shall have delivered such payment to the Company.

(c) In the event of any exercise of the rights represented by this Warrant, the Company shall reflect on its Members Schedule the issuance to the Holder of the whole number of Warrant Units so purchased hereunder as of the applicable Exercise Date, and, unless this Warrant has been fully exercised, a new Warrant (in the same form as this Warrant) representing the unexercised portion of this Warrant, shall also be issued to the Holder as soon as reasonably practicable thereafter after the applicable Exercise Date.

(d) As a precondition to any exercise of the rights represented by this Warrant, the Holder shall, if required by the Company, execute and become a party to the Operating Agreement, and any stockholder agreement, voting agreement, right of first refusal and co-sale agreement and all other agreements between or among the Company and its equity holders then in effect.

(e) In connection with the expiration of this Warrant in connection with a Merger Event, in lieu of the payment of the aggregate Exercise Price, the Holder shall have the right (but not the obligation), to require the Company to convert this Warrant, in whole or in part, into Warrant Units (the "Conversion Right") as provided for in this Section 2.1(e). Upon exercise of the Conversion Right, the Company shall deliver to the Holder (without payment by the Holder of any of the Exercise Price) in accordance with this Section 2.1 that number of shares of Warrant Units determined as follows:

$$X = Y (A-B)/A$$

where:

X = the number of Warrant Units to be issued to the Holder;

Y = the number of Warrant Units subject to this Warrant for which the Conversion Right is being exercised;

A = the Current Market Price of one Warrant Unit as of the date of exercise of the Conversion Right;

B = the Exercise Price

The Conversion Right may be exercised by the Holder on any Business Day prior to (and conditioned upon) the closing in respect of the Merger Event by surrender of this Warrant to the Company. The Company agrees that the Warrant Units issued upon exercise of the Conversion Right shall be deemed to be issued to the Holder as the record owner of such Warrant Units as of the close of business on the date on which this Warrant shall have been exercised (together with the Notice of Exercise attached hereto as **Appendix A** duly executed and completed) or deemed exercised.

2.2 Capital Account Adjustments Upon Exercise; Tax Treatment.

(a) So long as the Company is a limited liability company, upon the exercise of this Warrant, (i) any amount paid or deemed paid by the Holder upon the exercise of this Warrant shall be deemed to be a Capital Contribution made with respect to the corresponding Warrant Unit received upon such exercise and the Capital Account of Holder shall be adjusted accordingly; and (ii) if, as a result of the exercise of a Warrant, a capital account reallocation is required under U.S. Treasury regulation Section 1.704-1(b)(2)(iv)(s), the Company shall specially allocate items of gain and loss to its Members pursuant to U.S. Treasury regulation Section 1.704-1(b)(4)(x).

(b) The Company and the Holder agree (i) the Warrant is properly treated, for U.S. federal income tax purposes, as a Noncompensatory Option; (ii) the Warrant will not be treated as exercised for U.S. federal income tax purposes and is not treated as a partnership interest pursuant to Treasury Regulation Section 1.761-3(a), upon issuance, thus, the Holder will not receive any allocation of income, gain, loss or deduction prior to the receipt of Common Units acquired upon exercise of the Warrant; and (iii) to follow the U.S. Treasury regulations regarding the exercise of Noncompensatory Options with respect to the U.S. federal income tax treatment of the Warrant and the capital account treatment with respect to the Common Units acquired upon exercise of the Warrant, including with respect to a capital account reallocation in connection with the revaluation of property in accordance with U.S. Treasury regulation Section 1.704-1(b)(2)(iv)(s).

Article 3. Reservation of Units. Upon receipt of a Notice to Exercise (or reasonably in advance of such notice if the holder indicates an intent to exercise this Warrant), the Company shall take all necessary action to amend its Operating Agreement to ensure that a sufficient number of units are reserved, to provide for the exercise of the rights of purchase represented by this Warrant in compliance with its terms, and to ensure compliance with Section 2.2 hereof.

Article 4. Adjustments and Distributions. The number and kind of units purchasable upon the exercise of this Warrant shall be subject to adjustment from time to time upon the occurrence of certain events, as follows:

4.1 Splits, Dividends and Subdivisions. If the Company shall at any time or from time to time while this Warrant is outstanding, pay a dividend or make a distribution on its units, subdivide its outstanding units into a greater number of units or combine its outstanding units into a smaller number of units, then the number of Warrant Units purchasable upon exercise of this Warrant in effect immediately prior to the date upon which such change shall become effective, and the applicable Warrant Price, shall be proportionally adjusted by the Company so that the Holder thereafter exercising this Warrant shall be entitled to receive the number of units which the Holder would have received if this Warrant had been fully exercised immediately prior to such event at a proportionate exercise price. Such adjustments shall be made successively whenever any event listed above shall occur.

4.2 Recapitalization, Reclassification, Conversion or Reorganization. If any recapitalization, reclassification, conversion or reorganization of the Membership Interests of the Company (other than a subdivision or combination as provided for in Section 4.1 above) shall be effected in such a manner (including, without limitation, in connection with a consolidation or merger in which the Company is the continuing entity) that holders of Membership Interests shall be entitled to receive units, securities, or other assets or property (a "Reorganization"), then, as a condition of such Reorganization, lawful and adequate provisions shall be made by the Company whereby the Holder hereof shall thereafter have the right to purchase and receive (in lieu of the units of the Company immediately theretofore purchasable and receivable upon the exercise of the rights represented hereby) such units, securities or other assets or property as may be issued or payable with respect to or in exchange for a number of outstanding units equal to the number of units immediately theretofore purchasable and receivable upon the exercise of the rights represented hereby in the Reorganization, appropriate provision shall be made by the Company with respect to the rights and interests of the Holder of this Warrant such that the provisions hereof (including, without limitation, provisions for adjustments of the Warrant Price and of the number of Warrant Units) shall thereafter be applicable, in relation to any units, securities or assets thereafter deliverable upon the exercise hereof. The provisions of this Section 4.2 shall similarly apply to successive Reorganizations.

4.3 Consolidation or Merger.

(a) For purposes of this Warrant, "Merger Event" shall mean (a) the acquisition of the Company by another entity by means of any transaction or series of related transactions (including, without limitation, any stock acquisition, reorganization, merger or consolidation but excluding any sale of stock for capital raising purposes) other than a transaction or series of transactions in which the holders of the voting securities of the Company outstanding immediately prior to such transaction continue to retain (either by such voting securities remaining outstanding or by such voting securities being converted into voting securities of the surviving entity), more than fifty percent (50%) of the total voting power represented by the voting securities of the Company or such surviving entity outstanding immediately after such transaction or series of transactions; or (b) a sale of all or substantially all of the assets of the Company.

(b) If upon the closing of a Merger Event the successor entity assumes the obligations of this Warrant, then this Warrant shall be exercisable for the same securities, cash, and property as would be payable for the securities issuable upon exercise of the unexercised portion of this Warrant as if such securities were outstanding on the record date for the Merger Event and subsequent closing. The Exercise Price shall be adjusted accordingly. The Company shall use reasonable efforts to cause the surviving corporation to assume the obligations of this Warrant.

(c) If upon the closing of a Merger Event the successor entity does not assume the obligations of this Warrant, the Holder shall be provided with reasonable prior written notice of such event, and, if the Holder has not otherwise exercised this Warrant in full prior to the closing of such Merger Event, then this Warrant shall be deemed to have been automatically terminated as of the closing of such Merger Event.

4.4 Distributions. In case the Company shall fix a payment date for the making of a distribution to all holders of Membership Interests or evidences of indebtedness or assets (other than dividends or distributions referred to in Section 4.1 hereof), or any other distribution not covered by the foregoing provisions, other than tax distributions under the Operating Agreement, the Company shall mail to the Holder, at least ten (10) days prior to such payment date, a notice specifying the date on which any such record is to be taken for the purpose of such distribution and the Holder shall be entitled, upon exercise of this Warrant, to receive from the Company its pro rata share of any such distribution such that the Holder receives, upon exercise of this Warrant, the same type and amount of property which such Holder would have received if such Holder had exercised this Warrant immediately prior to such distribution or the date the Company shall take a record of the holders of its units for purposes of such distribution, as applicable, and, from and after the date of such distribution, the Company shall hold and set aside (or cause to be held and set aside in a commercially reasonable manner), for so long as this Warrant shall remain outstanding, an amount of such property equal to the Holder's pro rata portion thereof for distribution to the Holder pursuant hereto.

4.5 Other Securities. In the event that, as a result of an adjustment made pursuant to this Article 4, the Holder shall become entitled to receive any securities of the Company other than units, the number of such other units so receivable upon exercise of this Warrant shall be subject thereafter to adjustment from time to time in a manner and on terms as nearly equivalent as practicable to the provisions with respect to the Warrant Units contained in this Warrant.

4.6 Notice of Adjustments. With each adjustment pursuant to this Article 4 the Company shall deliver a certificate setting forth in reasonable detail the adjustment, the method by which such adjustment was calculated, the Warrant Price and the number of Warrant Units purchasable hereunder after giving effect to such adjustment.

Article 5. Mutilated or Missing Warrants. In case this Warrant shall be mutilated, lost, stolen, or destroyed, the Company shall issue in exchange and substitution of and upon cancellation of the mutilated Warrant, or in lieu of and substitution for the Warrant lost, stolen or destroyed, a new Warrant of like tenor and for the purchase of a like number of Warrant Units, but only upon receipt of evidence reasonably satisfactory to the Company of such loss, theft or destruction of the Warrant, and with respect to a lost, stolen or destroyed Warrant, reasonable assurance or bond with respect thereto, if requested by the Company.

Article 6. Fractional Units. No fractional units shall be issued in connection with any exercise hereunder, and in lieu of any such fractional units the Company shall make a cash payment therefor to the Holder (or such other person or persons as directed by the Holder) based on the Fair Market Value of a Warrant Unit on the date of exercise of this Warrant.

Article 7. Compliance with Securities Act and Legends. The Holder, by acceptance hereof, agrees that this Warrant and the units to be issued upon exercise hereof, are being acquired for investment and that such Holder will not offer, sell or otherwise dispose of this Warrant, or any units to be issued upon exercise hereof except (i) under circumstances which will not result in a violation of the Securities Act of 1933, as amended, or the rules and regulations promulgated thereunder, as amended (the "Act"), or any state's securities laws, and (ii) upon full compliance with the transfer restrictions set forth in the Operating Agreement which are incorporated herein by reference. Holder hereby agrees to be bound by such provisions. All units upon exercise of this Warrant (unless registered under the Act) shall be stamped or imprinted with the legends required by applicable state and federal securities laws in the opinion of counsel to the Company. The Company may require the Holder to provide to the Company an opinion of counsel selected by the Holder and reasonably acceptable to the Company, the form and substance of which opinion shall be reasonably satisfactory to the Company and its counsel, to the effect that any such transfer does not require registration of this Warrant under the Securities Act and that such transfer complies with the Operating Agreement. As a condition of transfer, the transferee shall agree in writing to be bound by the terms of this Warrant and the Operating Agreement applicable to holders of the Warrants.

Article 8. No Rights as a Member. Except as expressly provided in this Warrant, no Holder, as such, shall be entitled to vote or receive dividends or be deemed the holder of units or any other securities of the Company which may at any time be issuable on the exercise hereof for any purpose, nor shall anything contained herein be construed to confer upon the Holder, as such, any of the rights of a member of the Company or any right to vote for the election of the directors or their equivalent or upon any matter submitted to members at any meeting thereof, or to receive notice of meetings, or to receive dividends or subscription rights or otherwise, until this Warrant shall have been exercised and the Warrant Units purchasable upon the exercise hereof shall have become deliverable. as provided herein.

Article 9. Modification and Waiver. This Warrant and any provision hereof may be amended, changed, waived, discharged or terminated only by an instrument in writing signed by (i) the Company, with the approval of the Company's Board of Managers (the "Board"), and (ii) the Required Series B Consent.

Article 10. Notices. All notices and other communications given or made pursuant to this Warrant shall be in writing and shall be deemed effectively given upon the earlier of actual receipt or: (a) personal delivery to the party to be notified, (b) when sent, if sent by electronic mail or facsimile during normal business hours of the recipient, and if not sent during normal business hours, then on the recipient's next business day, (c) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one (1) business day after deposit with a nationally recognized overnight courier, freight prepaid, specifying next business day delivery, with written verification of receipt. All communications shall be sent to the respective parties at their address set forth herein, or to such e-mail address, facsimile number or address as subsequently modified by written notice given in accordance with this Section.

Article 11. Descriptive Headings. The descriptive headings contained in this Warrant are inserted for convenience only and do not constitute a part of this Warrant.

Article 12. Governing Law; Consent to Jurisdiction. This Warrant shall be governed by, and construed in accordance with, the internal laws of the State of Delaware, without reference to the choice of law principles thereof. Each of the Company and Holder (i) submits to the exclusive jurisdiction of the Chancery Court of the State of Delaware (or, if the Chancery Court of the State of Delaware declines to accept jurisdiction over a particular matter, any state or federal court within the State of Delaware) in any action or proceeding arising out of or relating to this Warrant, (ii) agrees that all claims in respect of such action or proceeding may be heard and determined in any such court and (iii) agrees not to bring any action or proceeding arising out of or relating to this Warrant or the subject matter hereof in any other court. Each party hereto waives any defense of inconvenient forum to the maintenance of any action or proceeding so brought and waives any bond, surety or other security that might be required of any other party hereto with respect thereto. Each party hereto agrees that service of summons and complaint or any other process that might be served in any action or proceeding may be made on such party hereto by sending or delivering a copy of the process to the party hereto to be served at the last known business address of the party. Nothing in this Section however, shall affect the right of any party hereto to serve legal process in any other manner permitted by applicable law. Each party hereto agrees that a final, non-appealable judgment in any action or proceeding so brought shall be conclusive and may be enforced by suit on the judgment or in any other manner provided by law.

Article 13. Acceptance. Receipt of this Warrant by the Holder hereof shall constitute acceptance of and agreement to the foregoing terms and conditions.

Article 14. No Impairment of Rights. The Company shall not, by amendment of its Operating Agreement or through any other means, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such action as may be necessary or appropriate in order to protect the rights of the holder of this Warrant against material impairment.

Article 15. Severability. In the event that any court of competent jurisdiction shall determine that any provision, or any portion thereof, contained in this Warrant shall be unenforceable in any respect, then such provision shall be deemed limited to the extent that such court deems it enforceable, and as so limited shall remain in full force and effect. In the event that such court shall deem any such provision, or portion thereof, wholly unenforceable, the remaining provisions of this Warrant shall nevertheless remain in full force and effect.

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed on its behalf by one of its officers thereunto duly authorized as of the date first above written.

COMPANY:

ELECTROCORE, LLC

By: _____

Name: Francis R. Amato
Title: Chief Executive Officer

Acknowledged and Agreed:

HOLDER:

By: _____
Name:
Title:
Address:

APPENDIX A

NOTICE OF EXERCISE

To: ElectroCore, LLC **("Company")**

1. The undersigned hereby elects to purchase of the outstanding common units of **COMPANY** pursuant to the terms of the attached Warrant [and pursuant to an exercise of its Conversion Right].

2. Such Common Units should be registered in the name or names as are specified below:

[TO BE COMPLETED]

By: _____
Name: _____
Title: _____
Date: _____

3. Please issue a new Warrant of equivalent form and tenor for the unexercised portion of the attached Warrant in the name of the undersigned or in such other name as is specified below:

[TO BE COMPLETED]

By: _____
Name: _____
Title: _____
Date: _____

Exhibit 10.23

THIS WARRANT HAS NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT") OR ANY OTHER SECURITIES LAWS AND MAY NOT BE OFFERED FOR SALE, SOLD, DELIVERED AFTER SALE, TRANSFERRED, PLEDGED OR HYPOTHECATED IN THE ABSENCE OF (1) AN EFFECTIVE REGISTRATION STATEMENT COVERING THIS WARRANT UNDER THE ACT AND ANY OTHER APPLICABLE SECURITIES LAWS, OR (2) AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED.

ELECTROCORE, LLC

WARRANT TO PURCHASE UNITS

Original Issue Date: [ ]

FOR VALUE RECEIVED, ELECTROCORE, LLC, having an address at 150 Allen Road 51, Basking Ridge, NJ 07920, a Delaware limited liability company (the "Company"), hereby certifies that [ ], or its registered transferees, successors or assigns (each person or entity holding all or part of this Warrant being referred to as a "Holder"), is the registered holder of this warrant (the "Warrant") to subscribe for and purchase the number of Series A Preferred Units of the Company in an amount equal to the Warrant Units (as herein defined) at a purchase price per unit equal to the Warrant Price, on or before, 5:00 P.M., Eastern Time, on [ ] (the "Expiration Date"), subject to the provisions and upon the terms and conditions hereinafter set forth. As used in this Warrant, the term "Business Day" means any day other than a Saturday or Sunday on which commercial banks located in New Jersey are open for the general transaction of business.

The Company and Holder hereby agree as follows:

Article 1. Definitions. For purposes of this Warrant, the following terms shall have the following definitions:

1.1 "GAAP" means generally accepted accounting principles as in effect in the United States on the date hereof, consistently applied.

1.2 "Warrant Coverage Amount" means $.

1.3 "Warrant Price" means $.

1.4 "Warrant Units" means [ ]Series A Preferred Units of the Company (the number of units of the Company equal to the quotient obtained by dividing the Warrant Coverage Amount by the Warrant Price).

Article 2. Exercise.

2.1 Method of Exercise; Payment; Issuance of New Warrant.

(a) Subject to the provisions hereof, the Holder may exercise this Warrant, in whole or part and from time to time, by the surrender of this Warrant (together with the Notice of Exercise attached hereto as **Appendix A** duly executed and completed) at the principal office of the Company, or such other office or agency of the Company as it may reasonably designate by written notice to the Holder, during normal business hours on any Business Day (the date of surrender may hereinafter be referred to as an "Exercise Date").

(b) On the Exercise Date, the Holder shall deliver to the Company payment by the Holder in cash, certified check payable to the Company or wire transfer of immediately available funds to an account designated to the Holder by the Company of an amount equal to the Warrant Price multiplied by the number of Warrant Units for which this Warrant is then being exercised. The Holder (or such other person or persons as directed by the Holder) shall be treated for all purposes as the holder of record of such Warrant Units as of the close of business on the date on which the Holder shall have delivered such payment to the Company.

(c) In the event of any exercise of the rights represented by this Warrant, certificates for the whole number of Warrant Units so purchased shall be delivered to the Holder (or such other person or persons as directed by the Holder) as promptly as is reasonably practicable after the applicable Exercise Date, at the Company's expense, and, unless this Warrant has been fully exercised, a new Warrant (in the same form as this Warrant) representing the unexercised portion of this Warrant, shall also be issued to the Holder as soon as reasonably practicable thereafter.

(d) As a precondition to any exercise of the rights represented by this Warrant, the Holder must, unless waived by the Company, execute and become a party to any operating agreement, stockholder agreement, voting agreement, right of first refusal and co-sale agreement and all other agreements between or among the Company and its equity holders then in effect.

Article 3. Reservation of Units; Units Fully Paid; Listing. Upon receipt of a Notice to Exercise (or reasonably in advance of such notice if the holder indicates an intent to exercise this Warrant), the Company shall take all necessary action to amend its Operating Agreement to ensure that a sufficient number of units are reserved, to provide for the exercise of the rights of purchase represented by this Warrant in compliance with its terms.

Article 4. Adjustments and Distributions. The number and kind of units purchasable upon the exercise of this Warrant shall be subject to adjustment from time to time upon the occurrence of certain events, as follows:

4.1 Splits, Dividends and Subdivisions. If the Company shall at any time or from time to time while this Warrant is outstanding, pay a dividend or make a distribution on its units (other than tax distributions), subdivide its outstanding units into a greater number of units or combine its outstanding units into a smaller number of units, then the number of Warrant Units purchasable upon exercise of this Warrant in effect immediately prior to the date upon which

such change shall become effective, and the applicable Warrant Price, shall be proportionally adjusted by the Company so that the Holder thereafter exercising this Warrant shall be entitled to receive the number of units which the Holder would have received if this Warrant had been fully exercised immediately prior to such event at a proportionate exercise price. Such adjustments shall be made successively whenever any event listed above shall occur.

4.2 Recapitalization, reclassification, conversion or reorganization. If any recapitalization, reclassification, conversion or reorganization of the Membership Interests of the Company (other than a subdivision or combination as provided for in Section 4.1 above) shall be effected in such a manner (including, without limitation, in connection with a consolidation or merger in which the Company is the continuing entity) that holders of Membership Interests shall be entitled to receive units, securities, or other assets or property (a "Reorganization"), then, as a condition of such Reorganization, lawful and adequate provisions shall be made by the Company whereby the Holder hereof shall thereafter have the right to purchase and receive (in lieu of the units of the Company immediately theretofore purchasable and receivable upon he exercise of the rights represented hereby) such units, securities or other assets or properly as may be issued or payable with respect to or in exchange for a number of outstanding units equal to the number of units immediately theretofore purchasable and receivable upon the exercise of the rights represented hereby in the Reorganization, appropriate provision shall be made by the Company with respect to the rights and interests of the Holder of this Warrant to the end that the provisions hereof (including, without limitation, provisions for adjustments of the Warrant Price and of the number of Warrant Units) shall thereafter be applicable, in relation to any units, securities or assets thereafter deliverable upon the exercise hereof. The provisions of this Section 4.2 shall similarly apply to successive Reorganizations.

4.3 Consolidation or Merger. If any consolidation or merger of the Company with another entity in which the Company is not the survivor, or sale, transfer or other disposition of all or substantially all of the Company's assets to another entity shall be effected where the consideration for such consolidation or merger is entirely Membership Interests (i.e., it is a unit for unit transfer), then, as a condition of such consolidation, merger, sale, transfer or other disposition, lawful and adequate provision shall be made whereby the Holder shall thereafter have the right to purchase and receive upon the basis and upon the terms and conditions herein specified and in lieu of the Warrant Units immediately theretofore issuable upon exercise of this Warrant, such units, securities or assets as would have been issuable or payable with respect to or in exchange for a number of Warrant Units equal to the number of Warrant Units immediately theretofore issuable upon exercise of this Warrant, had such consolidation, merger, sale, transfer or other disposition not taken place, and in any such case appropriate provision shall be made with respect to the rights and interests of each Holder to the end that the provisions hereof (including, without limitation, provision for adjustment of the Warrant Price and of the number of Warrant Units) shall thereafter be applicable, as nearly equivalent as may be practicable in relation to any units, securities or properties thereafter deliverable upon the exercise thereof. The Company shall not effect any such consolidation, merger, sale, transfer or other disposition unless prior to or simultaneously with the consummation thereof the successor entity (if other than the Company) resulting from such consolidation or merger, or the entity purchasing or otherwise acquiring such assets or other appropriate entity shall assume the obligation to deliver to the Holder such units, securities or assets as, in accordance with the foregoing provisions, such Holder may be entitled to purchase, and the other obligations under this Warrant. The provisions of this Section 4.3 shall similarly apply to successive consolidations, mergers, sales, transfers or other dispositions.

4.4 Distributions. In case the Company shall fix a payment date for the making of a distribution to all holders of Membership Interests of evidences of indebtedness or assets (other than dividends or distributions referred to in Section 4.1 hereof), or any other distribution not covered by the foregoing provisions, the Company shall mail to the Holder, at least ten (10) days prior to such payment date, a notice specifying the date on which any such record is to be taken for the purpose of such distribution and the Holder shall be entitled, upon exercise of this Warrant, to receive from the Company its pro rata share of any such distribution such that the Holder receives, upon exercise of this Warrant, the same type and amount of property which such Holder would have received if such Holder had exercised this Warrant immediately prior to such distribution or the date the Company shall take a record of the holders of its units for purposes of such distribution, as applicable, and, from and after the date of such distribution, the Company shall hold and set aside (or cause to be held and set aside in a commercially reasonable manner), for so long as this Warrant shall remain outstanding, an amount of such property equal to the Holder's pro rata portion thereof for distribution to the Holder pursuant hereto.

4.5 Other Securities. In the event that, as a result of an adjustment made pursuant to this Article 4, the Holder shall become entitled to receive any securities of the Company other than units, the number of such other units so receivable upon exercise of this Warrant shall be subject thereafter to adjustment from time to time in a manner and on terms as nearly equivalent as practicable to the provisions with respect to the Warrant Units contained in this Warrant.

4.6 Notice of Adjustments. With each adjustment pursuant to this Article 4 the Company shall deliver a certificate setting forth in reasonable detail the adjustment, the method by which such adjustment was calculated, the Warrant Price and the number of Warrant Units purchasable hereunder after giving effect to such adjustment.

4.7 Acquisition. Notwithstanding anything in this Warrant to the contrary, prior to the closing of any Acquisition, the Company shall provide Holder with reasonable prior written notice of such closing to enable Holder to exercise this Warrant and participate in the Acquisition on the same terms as other holders of the same class of securities of the Company. Upon such closing, unless the acquiror agrees to assume the obligations under this Warrant, the unexercised portion of this Warrant shall immediately terminate and expire. For the purpose of this warrant, "Acquisition" means (a) any sale, license, or other disposition of all or substantially all of the assets (including intellectual property) of the Company or of any material medical indication, (b) any reorganization, consolidation, merger or sale of the voting securities of the Company or any other transaction where the holders of the Company's securities before the transaction beneficially own less than 50% of the outstanding voting securities of the surviving entity after the transaction, or (c) the liquidation, dissolution, or winding up of the Company. For the avoidance of doubt, the term "Acquisition" shall not include a bona fide equity financing or series of financings solely for capital raising purposes.

Article 5. Mutilated or Missing Warrants. In case this Warrant shall be mutilated, lost, stolen, or destroyed, the Company shall issue in exchange and substitution of and upon cancellation of the mutilated Warrant, or in lieu of and substitution for the Warrant lost, stolen or destroyed, a new Warrant of like tenor and for the purchase of a like number of Warrant Units, but only upon receipt of evidence reasonably satisfactory to the Company of such loss, theft or destruction of the Warrant, and with respect to a lost, stolen or destroyed Warrant, reasonable assurance or bond with respect thereto, if requested by the Company.

Article 6. Fractional Units. No fractional units shall be issued in connection with any exercise hereunder, and in lieu of any such fractional units the Company shall make a cash payment therefor to the Holder (or such other person or persons as directed by the Holder) based on the Fair Market Value of a Warrant Unit on the date of exercise of this Warrant.

Article 7. Compliance with Securities Act and Legends. The Holder, by acceptance hereof, agrees that this Warrant and the units to be issued upon exercise hereof, are being acquired for investment and that such Holder will not offer, sell or otherwise dispose of this Warrant, or any units to be issued upon exercise hereof except under circumstances which will not result in a violation of the Securities Act of 1933, as amended, or the rules and regulations promulgated thereunder, as amended (the "Act"), or any state's securities laws. All units upon exercise of this Warrant (unless registered under the Act) shall be stamped or imprinted with the legends required by applicable state and federal securities laws in the opinion of counsel to the Company.

Article 8. No Rights as a Member. Except as expressly provided in this Warrant, no Holder, as such, shall be entitled to vote or receive dividends or be deemed the holder of units or any other securities of the Company which may at any time be issuable on the exercise hereof for any purpose, nor shall anything contained herein be construed to confer upon the Holder, as such, any of the rights of a member of the Company or any right to vote for the election of the directors or their equivalent or upon any matter submitted to members at any meeting thereof, or to receive notice of meetings, or to receive dividends or subscription rights or otherwise, until this Warrant shall have been exercised and the Warrant Units purchasable upon the exercise hereof shall have become deliverable. as provided herein.

Article 9. Modification and Waiver. This Warrant and any provision hereof may be changed, waived, discharged or terminated only by an instrument in writing signed by the Company and the Holder.

Article 10. Notices. All notices and other communications given or made pursuant to this Warrant shall be in writing and shall be deemed effectively given upon the earlier of actual receipt or: (a) personal delivery to the party to be notified, (b) when sent, if sent by electronic mail or facsimile during normal business hours of the recipient, and if not sent during normal business hours, then on the recipient's next business day, (c) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one (1) business day after deposit with a nationally recognized overnight courier, freight prepaid, specifying next business day delivery, with written verification of receipt. All communications shall be sent to the respective parties at their address set forth herein, or to such e-mail address, facsimile number or address as subsequently modified by written notice given in accordance with this Section.

Article 11. Descriptive Headings. The descriptive headings contained in this Warrant are inserted for convenience only and do not constitute a part of this Warrant.

Article 12. Governing Law; Consent to Jurisdiction. This Warrant shall be governed by, and construed in accordance with, the internal laws of the State of New Jersey, without reference to the choice of law principles thereof. Any legal action, suit or proceeding arising out of or relating to this Warrant, or the transactions contemplated hereby, shall only be instituted, heard and adjudicated (excluding appeals) in a federal court located in the State of New Jersey, and each party hereto knowingly, voluntarily and intentionally waives any objection which such party may now or hereafter have to the laying of the venue of any such action, suit or proceeding, and irrevocably submits to the exclusive personal jurisdiction of any such court in any such action, suit or proceeding. Service of process in connection with any such action, suit or proceeding may be served on each party hereto anywhere in the world by the same methods as are specified for the giving of notices under this Warrant except as otherwise required by law.

Article 13. Acceptance. Receipt of this Warrant by the Holder hereof shall constitute acceptance of and agreement to the foregoing terms and conditions.

Article 14. No Impairment of Rights. The Company shall not, by amendment of its Operating Agreement or through any other means, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such action as may be necessary or appropriate in order to protect the rights of the holder of this Warrant against material impairment.

Article 15. Severability. In the event that any court of competent jurisdiction shall determine that any provision, or any portion thereof, contained in this Warrant shall be unenforceable in any respect, then such provision shall be deemed limited to the extent that such court deems it enforceable, and as so limited shall remain in full force and effect. In the event that such court shall deem any such provision, or portion thereof, wholly unenforceable, the remaining provisions o this Warrant shall nevertheless remain in full force and effect.

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed on its behalf by one of its officers thereunto duly authorized as of the date first above written.

COMPANY:

ELECTROCORE, LLC

By: _____
Name:
Title:

Acknowledged and Agreed:

[ ]

By: _____
Name:
Title:
Address:

APPENDIX A

NOTICE OF EXERCISE

To: ElectroCore, LLC **("Company")**

1. The undersigned hereby elects to purchase of the outstanding Series A Preferred Units of **COMPANY** pursuant to the terms of the attached Warrant.

2. Such Units should be registered in the name or names as are specified below:

[TO BE COMPLETED]

By: _____
Name: _____
Title: _____
Date: _____

3. Please issue a new Warrant of equivalent form and tenor for the unexercised portion of the attached Warrant in the name of the undersigned or in such other name as is specified below:

[TO BE COMPLETED]

By: _____
Name: _____
Title: _____
Date: _____

Exhibit 10.24

THIS WARRANT HAS NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT") OR ANY OTHER SECURITIES LAWS AND MAY NOT BE OFFERED FOR SALE, SOLD, DELIVERED AFTER SALE, TRANSFERRED, PLEDGED OR HYPOTHECATED IN THE ABSENCE OF (1) AN EFFECTIVE REGISTRATION STATEMENT COVERING THIS WARRANT UNDER THE ACT AND ANY OTHER APPLICABLE SECURITIES LAWS, OR (2) AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED.

ELECTROCORE, LLC

WARRANT TO PURCHASE UNITS

Original Issue Date: , 20 Warrant No. B'16 - ____

FOR VALUE RECEIVED, ELECTROCORE, LLC, a Delaware limited liability company (the "Company"), hereby certifies that , or its registered transferees, successors or assigns (each person or entity holding all or part of this Warrant being referred to as a "Holder"), is the registered holder of this warrant (the "Warrant") to subscribe for and purchase the number of membership units or shares of the same securities ("Conversion Securities") issued by the Company in the Qualified Equity Financing (as defined in the Notes) in an amount equal to the Warrant Units (as herein defined) at a purchase price per unit equal to the Warrant Price, on or before, 5:00 P.M., Eastern Time, on June 24, 2021 (the "Expiration Date"), subject to the provisions and upon the terms and conditions hereinafter set forth. As used in this Warrant, the term "Business Day" means any day other than a Saturday or Sunday on which commercial banks located in New Jersey are open for the general transaction of business.

Reference is hereby made to the bridge financing by the Company (the "Offering") conducted beginning in June 2016 of up to $,000,000 (subject to increase) in convertible promissory notes ("Notes"), and related warrants and common units, pursuant to one or more Note and Warrant Purchase Agreements (individually, the "Purchase Agreement" and collectively, the "Purchase Agreements") by and between the Company and the purchasers (collectively, the "Bridge Holders") of securities in the Offering. This Warrant is being issued pursuant to a Purchase Agreement between the Company and Holder.

The Company and Holder herby agree as follows:

Article 1. Definitions. For purposes of this Warrant, the following terms shall have the following definitions:

1.1 "GAAP" means generally accepted accounting principles as in effect in the United States on the date hereof, consistently applied.

1.2 "Warrant Coverage Amount" means an amount equal to twenty percent (20%) of the aggregate original principal amount of the Notes purchased by Purchaser pursuant to the Purchase Agreements divided by the Warrant Price.

1.3 “Warrant Price” means the price per unit or share at which the Conversion Securities were issued in the Qualified Equity Financing.

1.4 “Warrant Units” means the number of Conversion Securities equal to the quotient obtained by dividing the Warrant Coverage Amount by the Warrant Price.

Article 2. Exercise; Capital Account Adjustments.

2.1 Method of Exercise; Payment; Issuance of New Warrant .

(a) Subject to the provisions hereof, the Holder may exercise this Warrant, in whole or part and from time to time, by the surrender of this Warrant (together with the Notice of Exercise attached hereto as **Appendix A** duly executed and completed) at the principal office of the Company, or such other office or agency of the Company as it may reasonably designate by written notice to the Holder, during normal business hours on any Business Day (the date of surrender may hereinafter be referred to as an “Exercise Date”).

(b) On the Exercise Date, the Holder shall deliver to the Company payment by the Holder in cash, certified check payable to the Company or wire transfer of immediately available funds to an account designated to the Holder by the Company of an amount equal to the Warrant Price multiplied by the number of Warrant Units then being purchased (the “Exercise Price”). The Holder (or such other person or persons as directed by the Holder) shall be treated for all purposes as the holder of record of such Warrant Units as of the close of business on the date on which the Holder shall have delivered such payment to the Company.

(c) In the event of any exercise of the rights represented by this Warrant, certificates for the whole number of Warrant Units so purchased shall be delivered to the Holder (or such other person or persons as directed by the Holder) as promptly as is reasonably practicable after the applicable Exercise Date, at the Company’s expense, and, unless this Warrant has been fully exercised, a new Warrant (in the same form as this Warrant) representing the unexercised portion of this Warrant, shall also be issued to the Holder as soon as reasonably practicable thereafter, but not later than three (3) Business Days, after the applicable Exercise Date.

(d) As a precondition to any exercise of the rights represented by this Warrant, the Holder must, unless waived by the Company, execute and become a party to any operating agreement, stockholder agreement, voting agreement, right of first refusal and co-sale agreement and all other agreements between or among the Company and its equity holders then in effect.

2.2 Capital Account Adjustments Upon Exercise . (a) So long as the Company is a limited liability company, upon the exercise of this Warrant, (i) any amount paid or deemed paid by the Holder upon the exercise of this Warrant shall be deemed to be a Capital Contribution made with respect to the corresponding Warrant Unit received upon such exercise and the Capital Account of Holder shall be adjusted accordingly; and (ii) consistent with the provisions of Proposed Treasury Regulation §1.704-1(b), the Company shall revalue the Gross Asset Values of its property and adjust the Capital Accounts of its Members. The Company shall specially allocate items of gain and loss otherwise includable in the computation of profit and loss and attributable to

such revaluation (and, if necessary, Company gain and loss not attributable to such revaluation) to Holder receiving Warrant Units on the Warrant Exercise Date in a manner that eliminates (to the fullest extent possible) the Capital Account Shortfall or Capital Account Excess associated with the applicable Warrant Units received on the exercise of this Warrant. It is understood and agreed that the provisions of this Section shall be applied (a) whether or not the proposed Regulations referred to above are adopted and become part of the Regulations and (b) if the final Regulations adopted differ materially from the provisions applied by this Section, the Company may recommend such amendments to this Warrant and the Company's Operating Agreement as it believes to be required to satisfy the Regulations as adopted. In the event the capital account adjustments made pursuant to this Section are insufficient to eliminate the Capital Account Shortfall or Capital Account Excess associated with the applicable Warrant Units, such Capital Account Shortfall or Capital Account Excess shall be eliminated by direct adjustments among the Capital Accounts of the Members.

(b) For purposes of this Warrant, "Capital Account Shortfall" shall mean, with respect to the Capital Account associated with the Warrant Units issued upon exercise of this Warrant, the excess (if any) of Holder's Targeted Account in respect of such Warrant Units over Holder's Capital Account in respect of such Warrant Units; "Capital Account Excess" shall mean, with respect to the Capital Account associated with the Warrant Units issued upon exercise of this Warrant, the excess (if any) of Holder's Capital Account in respect of such Warrant Units over Holder's Targeted Account in respect of such Warrant Units; and "Targeted Account" shall mean, with respect to each Warrant Unit issued upon exercise of this Warrant, an amount equal to the Holder's proportionate share (based on the number of Warrant Units acquired upon such exercise as it relates to the total outstanding Units as of such date) of the hypothetical aggregate distribution all of the Members would receive if all assets of the Company, including money at the end of such period: (a) were sold for cash equal to their gross asset value (taking into account any adjustments to gross asset value for such period); (b) all liabilities allocable to such assets were then due and were satisfied according to their terms; (c) all Minimum Gain chargebacks required by the Operating Agreement were made; (d) and all obligations of Members to contribute additional capital to the Company were satisfied; and (e) all remaining proceeds from such sale were distributed to the Members as if the Company were liquidated.

Article 3. Reservation of Units; Units Fully Paid; Listing. Upon receipt of a Notice to Exercise (or reasonably in advance of such notice if the holder indicates an intent to exercise this Warrant), the Company shall take all necessary action to amend its Operating Agreement to ensure that a sufficient number of units are reserved, to provide for the exercise of the rights of purchase represented by this Warrant in compliance with its terms, and to ensure compliance with Section 2.2 hereto.

Article 4. Adjustments and Distributions. The number and kind of units purchasable upon the exercise of this Warrant shall be subject to adjustment from time to time upon the occurrence of certain events, as follows:

4.1 Splits, Dividends and Subdivisions. If the Company shall at any time or from time to time while this Warrant is outstanding, pay a dividend or make a distribution on its units, subdivide its outstanding units into a greater number of units or combine its outstanding units into a smaller number of units, then the number of Warrant Units purchasable upon exercise of this Warrant in effect immediately prior to the date upon which such change shall become

effective, and the applicable Warrant Price, shall be proportionally adjusted by the Company so that the Holder thereafter exercising this Warrant shall be entitled to receive the number of units which the Holder would have received if this Warrant had been fully exercised immediately prior to such event at a proportionate exercise price. Such adjustments shall be made successively whenever any event listed above shall occur.

4.2 Recapitalization, reclassification, conversion or reorganization. If any recapitalization, reclassification, conversion or reorganization of the Membership Interests of the Company (other than a subdivision or combination as provided for in Section 4.1 above) shall be effected in such a manner (including, without limitation, in connection with a consolidation or merger in which the Company is the continuing entity) that holders of Membership Interests shall be entitled to receive units, securities, or other assets or property (a "Reorganization"), then, as a condition of such Reorganization, lawful and adequate provisions shall be made by the Company whereby the Holder hereof shall thereafter have the right to purchase and receive (in lieu of the units of the Company immediately theretofore purchasable and receivable upon he exercise of the rights represented hereby) such units, securities or other assets or properly as may be issued or payable with respect to or in exchange for a number of outstanding units equal to the number of units immediately theretofore purchasable and receivable upon the exercise of the rights represented hereby in the Reorganization, appropriate provision shall be made by the Company with respect to the rights and interests of the Holder of this Warrant to the end that the provisions hereof (including, without limitation, provisions for adjustments of the Warrant Price and of the number of Warrant Units) shall thereafter be applicable, in relation to any units, securities or assets thereafter deliverable upon the exercise hereof. The provisions of this Section 4.2 shall similarly apply to successive Reorganizations.

4.3 Consolidation or Merger.

(i) For purposes of this Warrant, "Merger Event" shall mean (a) the acquisition of the Company by another entity by means of any transaction or series of related transactions (including, without limitation, any stock acquisition, reorganization, merger or consolidation but excluding any sale of stock for capital raising purposes) other than a transaction or series of transactions in which the holders of the voting securities of the Company outstanding immediately prior to such transaction continue to retain (either by such voting securities remaining outstanding or by such voting securities being converted into voting securities of the surviving entity), more than fifty percent (50%) of the total voting power represented by the voting securities of the Company or such surviving entity outstanding immediately after such transaction or series of transactions; or (b) a sale of all or substantially all of the assets of the Company.

(ii) If upon the closing of a Merger Event the successor entity assumes the obligations of this Warrant, then this Warrant shall be exercisable for the same securities, cash, and property as would be payable for the securities issuable upon exercise of the unexercised portion of this Warrant as if such securities were outstanding on the record date for the Merger Event and subsequent closing. The Exercise Price shall be adjusted accordingly. The Company shall use reasonable efforts to cause the surviving corporation to assume the obligations of this Warrant.

(iii) If upon the closing of a Merger Event the successor entity does not assume the obligations of this Warrant, the Holder shall be provided with reasonable prior written notice of such event, and, if the Holder has not otherwise exercised this Warrant in full prior to the closing of such Merger Event, then this Warrant shall be deemed to have been automatically terminated as of the closing of such Merger Event.

4.4 Distributions. In case the Company shall fix a payment date for the making of a distribution to all holders of Membership Interests of evidences of indebtedness or assets (other than dividends or distributions referred to in Section 4.1 hereof), or any other distribution not covered by the foregoing provisions, the Company shall mail to the Holder, at least ten (10) days prior to such payment date, a notice specifying the date on which any such record is to be taken for the purpose of such distribution and the Holder shall be entitled, upon exercise of this Warrant, to receive from the Company its pro rata share of any such distribution such that the Holder receives, upon exercise of this Warrant, the same type and amount of property which such Holder would have received if such Holder had exercised this Warrant immediately prior to such distribution or the date the Company shall take a record of the holders of its units for purposes of such distribution, as applicable, and, from and after the date of such distribution, the Company shall hold and set aside (or cause to be held and set aside in a commercially reasonable manner), for so long as this Warrant shall remain outstanding, an amount of such property equal to the Holder's pro rata portion thereof for distribution to the Holder pursuant hereto.

4.5 Other Securities. In the event that, as a result of an adjustment made pursuant to this Article 4, the Holder shall become entitled to receive any securities of the Company other than units, the number of such other units so receivable upon exercise of this Warrant shall be subject thereafter to adjustment from time to time in a manner and on terms as nearly equivalent as practicable to the provisions with respect to the Warrant Units contained in this Warrant.

4.6 Notice of Adjustments. With each adjustment pursuant to this Article 4 the Company shall deliver a certificate setting forth in reasonable detail the adjustment, the method by which such adjustment was calculated, the Warrant Price and the number of Warrant Units purchasable hereunder after giving effect to such adjustment.

Article 5. Mutilated or Missing Warrants. In case this Warrant shall be mutilated, lost, stolen, or destroyed, the Company shall issue in exchange and substitution of and upon cancellation of the mutilated Warrant, or in lieu of and substitution for the Warrant lost, stolen or destroyed, a new Warrant of like tenor and for the purchase of a like number of Warrant Units, but only upon receipt of evidence reasonably satisfactory to the Company of such loss, theft or destruction of the Warrant, and with respect to a lost, stolen or destroyed Warrant, reasonable assurance or bond with respect thereto, if requested by the Company.

Article 6. Fractional Units. No fractional units shall be issued in connection with any exercise hereunder, and in lieu of any such fractional units the Company shall make a cash payment therefor to the Holder (or such other person or persons as directed by the Holder) based on the Fair Market Value of a Warrant Unit on the date of exercise of this Warrant.

Article 7. Compliance with Securities Act and Legends. The Holder, by acceptance hereof, agrees that this Warrant and the units to be issued upon exercise hereof, are being acquired for investment and that such Holder will not offer, sell or otherwise dispose of this Warrant, or any units to be issued upon exercise hereof except under circumstances which will

not result in a violation of the Securities Act of 1933, as amended, or the rules and regulations promulgated thereunder, as amended (the "Act"), or any state's securities laws. All units upon exercise of this Warrant (unless registered under the Act) shall be stamped or imprinted with the legends required by applicable state and federal securities laws in the opinion of counsel to the Company.

Article 8. No Rights as a Member. Except as expressly provided in this Warrant, no Holder, as such, shall be entitled to vote or receive dividends or be deemed the holder of units or any other securities of the Company which may at any time be issuable on the exercise hereof for any purpose, nor shall anything contained herein be construed to confer upon the Holder, as such, any of the rights of a member of the Company or any right to vote for the election of the directors or their equivalent or upon any matter submitted to members at any meeting thereof, or to receive notice of meetings, or to receive dividends or subscription rights or otherwise, until this Warrant shall have been exercised and the Warrant Units purchasable upon the exercise hereof shall have become deliverable. as provided herein.

Article 9. Modification and Waiver. This Warrant and any provision hereof may be amended, changed, waived, discharged or terminated only by an instrument in writing signed by the Company, with the approval of the Special Committee (the "Committee") of the Company's Board of Managers (the "Board") established to review the transactions contemplated hereunder (or a majority of the disinterested members of the Board if the Special Committee is no longer in place) and the Holder.

Article 10. Notices. All notices and other communications given or made pursuant to this Warrant shall be in writing and shall be deemed effectively given upon the earlier of actual receipt or: (a) personal delivery to the party to be notified, (b) when sent, if sent by electronic mail or facsimile during normal business hours of the recipient, and if not sent during normal business hours, then on the recipient's next business day, (c) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one (1) business day after deposit with a nationally recognized overnight courier, freight prepaid, specifying next business day delivery, with written verification of receipt. All communications shall be sent to the respective parties at their address set forth herein, or to such e-mail address, facsimile number or address as subsequently modified by written notice given in accordance with this Section.

Article 11. Descriptive Headings. The descriptive headings contained in this Warrant are inserted for convenience only and do not constitute a part of this Warrant.

Article 12. Governing Law; Consent to Jurisdiction. This Warrant shall be governed by, and construed in accordance with, the internal laws of the State of New Jersey, without reference to the choice of law principles thereof. Any legal action, suit or proceeding arising out of or relating to this Warrant, or the transactions contemplated hereby, shall only be instituted, heard and adjudicated (excluding appeals) in a federal court located in the State of New Jersey, and each party hereto knowingly, voluntarily and intentionally waives any objection which such party may now or hereafter have to the laying of the venue of any such action, suit or proceeding, and irrevocably submits to the exclusive personal jurisdiction of any such court in any such action, suit or proceeding. Service of process in connection with any such action, suit or proceeding may be served on each party hereto anywhere in the world by the same methods as are specified for the giving of notices under this Warrant except as otherwise required by law.

Article 13. Acceptance. Receipt of this Warrant by the Holder hereof shall constitute acceptance of and agreement to the foregoing terms and conditions.

Article 14. No Impairment of Rights. The Company shall not, by amendment of its Operating Agreement or through any other means, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such action as may be necessary or appropriate in order to protect the rights of the holder of this Warrant against material impairment.

Article 15. Severability. In the event that any court of competent jurisdiction shall determine that any provision, or any portion thereof, contained in this Warrant shall be unenforceable in any respect, then such provision shall be deemed limited to the extent that such court deems it enforceable, and as so limited shall remain in full force and effect. In the event that such court shall deem any such provision, or portion thereof, wholly unenforceable, the remaining provisions o this Warrant shall nevertheless remain in full force and effect.

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed on its behalf by one of its officers thereunto duly authorized as of the date first above written.

COMPANY:

ELECTROCORE, LLC

By: _____
Name: Francis R. Amato
Title: Chief Executive Officer

Acknowledged and Agreed:

_____

By: _____
Name:
Title:
Address:

APPENDIX A

NOTICE OF EXERCISE

To: ElectroCore, LLC **("Company")**

1. The undersigned hereby elects to purchase of the outstanding units of **COMPANY** pursuant to the terms of the attached Warrant.

2. Such Units should be registered in the name or names as are specified below:

[TO BE COMPLETED]

By: _____
Name: _____
Title: _____
Date: _____

3. Please issue a new Warrant of equivalent form and tenor for the unexercised portion of the attached Warrant in the name of the undersigned or in such other name as is specified below:

[TO BE COMPLETED]

By: _____
Name: _____
Title: _____
Date: _____

Exhibit 10.25

MASTER SERVICES AGREEMENT

This Master Services Agreement ("Agreement") is made as of this 17th day of October, 2016 (the "Effective Date") by and between Asembia LLC, a limited liability corporation incorporated under the laws of the State of Delaware having an address of 200 Park Ave, Suite 300, Florham Park, New Jersey 07932, its subsidiaries, divisions and affiliated business units under its common control or ownership, including but not limited to, ASPN Pharmacies, LLC, Bioridge Pharma, LLC, ReachRx OTM, LLC, Asembia Specialty Pharmacy Summit, LLC, ApproveRx, LLC and Asembia Technology, LLC (collectively, "Provider") and electroCore LLC, having an address of 150 Allen Road, Suite 201 Basking Ridge, NJ 07920, including any and all affiliates ("Company"). Provider and Company may be referred to in this Agreement individually as a "Party" or collectively as the "Parties".

1. Services; Incorporation of Terms

1.1. **Scope of Work**. During the term of this Agreement, Provider shall provide to Company the services (the "Services"), described in one or more Statements of Work (each, a "SOW") that may be executed from time to time by Provider and Company. The terms and conditions of this Agreement shall apply to any and all SOWs executed by the Parties that reference this Agreement. An affiliate of Company may execute an SOW with Provider and, in such circumstances, all references in this Agreement to Company shall be deemed to be to the applicable affiliate of Company, which shall be entitled to enforce this Agreement with respect to such SOW in its own name and which shall be solely liable to Provider for any obligations and liabilities undertaken pursuant to such SOW.

1.2. **Hierarchy of Terms**. In the event that there are any conflicts between the terms of this Agreement and the terms of any SOW, the terms of this Agreement shall control. The terms of this Agreement and the SOW shall be controlling over any terms of any purchase order, sales acknowledgement, invoice or other such documents issued by either Party. Any amendment of this Agreement shall be effective for all subsequently executed SOWs.

1.3. **No Guarantee of Work**. Notwithstanding anything in this Agreement to the contrary, until the Parties have executed and delivered an SOW, nothing in this Agreement shall be construed as the engagement by Company of Provider for the provision of any Services.

2. Provider's Responsibilities

Provider to Control. Provider shall have the complete professional, managerial and technical responsibility for the quality, validity, accuracy, timeliness and reliability of the Services and the Work Product (as defined in Section 6.1), whether such Services and Work Product are performed by employees or agents of Provider, its affiliates or its subcontractors (all collectively referred to as "Provider" or "its Personnel").

2.1. **Provider to Designate Manager**. Provider shall designate a manager in charge of the Services on a continuous basis with responsibility for providing adequate supervision or direction and having authority to take all action that may be required in performance of the applicable SOW.

2.2. **AE Reporting**. Provider agrees to maintain, on a continuous basis, designated staff and resources for prompt management of technical complaints and adverse event reports related to the Product. Provider shall within twenty-four (24) hours notify Company, if it receives any information that relates, refers or pertains to adverse events. Reporting shall be done using the form provided by Company. Adverse event reports shall be provided to Company in a manner mutually agreed to by the parties. An adverse event shall include, but is not limited to, the following:

2.2.1. An adverse or unexpected event in humans occurring while patient is using the Product;

2.2.2. A technical complaint relating to the Product;

2.2.3. Any report of any other problem involving the Product (e.g., contamination, discoloration, improper labeling, adulteration, etc.);

2.2.4. Any complaint or the initiation of any claim, lawsuit, or other proceeding against Provider that relates to the Product; or

2.2.5. Any local, state or federal investigation of or request for information sent to Provider or its pharmacists or other employees relating to Company or the Product.

2.3. **Company Policies**. Provider shall ensure that Provider and its employees and subcontractors comply with all of the policies, regulations and directives of Company, including but not limited to compliance with laws and regulations, and security (including data security), as such policies may be revised from time-to-time and provided to Provider.

2.4. **Due Diligence**. Provider acknowledges that Company is subject to various governmental and regulatory compliance requirements. Accordingly, Provider agrees that it shall, as reasonably requested by Company, provide information regarding Provider and its operations that will assist Company in its efforts to ensure compliance with various laws and regulations, including but not limited to Provider's interaction with government officials and Provider's data security controls and procedures.

3. Company's Responsibilities

3.1. **Company's Representative**. Company shall designate a person to act as Company's representative who shall have the authority to transmit instructions, receive information, interpret and define Company's policies and make decisions and in general to act as liaison between Company and Provider relating to this Agreement. In addition, for each SOW, Company shall designate its representative who shall act as a liaison between Company and Provider relating to such SOW. The initial Company representative shall be Dan Duhart.

4. Payments

4.1. **Fees**. As full and complete compensation for satisfactory performance of the Services, Company shall pay provider the fees and other compensation set forth in the applicable SOW. Provider shall be entitled to reimbursement of out-of-pocket expenses directly related to performing the Services, subject to Company's prior written approval of such expenses. Out-of-pocket expenses shall include reasonable and verifiable coach class travel, hotel accommodations and meal expenses that are incurred by Provider and are directly related to the Services. All such expenses shall be reimbursed at cost; no mark-up shall be permitted. Any individual expense in excess of $500 shall require the prior written approval of Company.

4.2. **Invoicing**. Provider shall invoice Company for all fees and expenses payable by Company under this Agreement as set forth in the applicable SOW. Such invoices shall set forth in detail the basis for the charges reflected therein. Each invoice shall include copies of receipts for all out-of-pocket expenses incurred. Provider shall send all invoices to the address set forth in the relevant Company purchase order or SOW. All invoices shall be payable within the period set forth in the applicable SOW.

4.3. **Taxes**. The fee set forth in each SOW shall include all applicable taxes, including without limitation, all sales and use taxes and value-added taxes that Provider is required to collect from Company. Provider shall be solely responsible for the timely payment of all such taxes to the applicable taxing authority, and Provider shall be responsible for the payment of any penalties, interest or additional taxes that may be levied or assessed as a result of the failure or delay of Provider to pay any taxes.

5. Scope Changes

5.1. **Changes by Company; Adjustments Due to Changes**. Company may, from time to time, by written order, and without invalidating this Agreement or the applicable SOW, or any portion thereof, make changes in the Services, or the conditions under which Services are to be performed, or may increase or decrease the Services to be performed. No change shall be made by Provider in its performance or its manner of performance of the Services without prior written authorization or instructions from Company, specifying the details of the change, and specifying whether there is to be an adjustment in the price or time for performance. If such changes increase or decrease either the cost or time required to perform the Services, then the Parties will mutually agree to an equitable adjustment to the price and/or the time to perform the Services. For the avoidance of doubt, it is agreed that there will be no increase in the fee schedule in the event Company expands distribution of products to additional pharmacies within the Provider network.

5.2. **Changes to be in Writing**. Any change to any SOW shall be in writing, shall define the extent of the change, the price or basis of pricing the change, the impact of the change on the schedule, and shall be signed by the Parties. No additional work by the Provider shall be paid for unless authorized in advance, in writing, by Company or its affiliate.

6. Representations and Warranties

6.1. Provider's Representations and Warranties

6.1.1. Provider represents and warrants to Company that:

(a) **Performance Standards**. Provider shall perform, and shall cause Provider's Personnel to perform, all of its obligations under this Agreement: (i) in strict accordance with the terms of this Agreement and the applicable SOW, including all amendments, work orders and other related documents; and (ii) in a professional, commercially diligent basis, in accordance with the generally accepted industry and professional standards, procedures and practices.

(b) **Qualifications of Provider's Personnel**. All of Provider's Personnel shall be well qualified to perform such Services and shall maintain all professional licenses, permits, certificates and registrations required for their performance of the Services.

(c) **Compliance with Laws**. Provider shall comply and shall cause Provider's Personnel to comply, with all applicable laws, ordinances, codes, rules and regulations. Provider shall have all professional licenses, permits, certificates and registrations required for its performance of the Services.

(d) **Anti-Bribery**. Provider has not and will not directly or indirectly offer or pay, or authorize such offer or payment, of any money or anything of value or improperly seek to influence any Government Official. For purposes of this Section, a "Government Official" is broadly defined as and includes: (i) any elected or appointed government official (e.g., a member of a ministry of health) and (ii) any employee or person acting for or on behalf of a government official, agency, or enterprise performing a governmental function; where "government" is meant to include all levels and subdivisions of non-US governments (i.e., local, regional, or national and administrative, legislative or executive).

(e) **Work Product**. All Work Product shall be performed in strict conformity with the specifications or descriptions of the Work Product or Services set forth in the applicable SOW and shall not infringe upon the patent, copyright or other intellectual property rights of any third party.

(f) **Conflicts**. The execution, delivery and performance of this Agreement by Provider does not conflict with any agreement, instrument or understanding, oral or written, to which it is a party or by which it may be bound, and does not violate any law or regulation of any court, governmental body or administrative or other agency having authority over Provider. Provider is not currently a party to, and during the term of this Agreement will not enter into, any agreements, oral or written, that are inconsistent with its obligations under this Agreement or any SOW.

(g) **Authority**. Provider is validly existing and in good standing under the laws of the jurisdiction of its organization and has the power and authority to enter into this Agreement. This Agreement has been duly executed and delivered by Provider and constitutes the valid and binding obligation of Provider, enforceable against it in accordance with its terms. The execution, delivery and performance of this Agreement have been duly authorized by all necessary action on the part of Provider, its officers and directors.

(h) **Debarment**. Provider is not debarred by any applicable authority, including without limitation under subsections 306(a) or (b) of the Federal Food, Drug, and Cosmetic Act (as amended, the "Act") and Provider has not and will not use in any capacity the services of any person or entity who has been debarred by any applicable authority with respect to Services. Provider will immediately notify Company in the event that Provider, or any of its Personnel becomes debarred or excluded during the term of this Agreement. Provider acknowledges that debarment of the Company shall be grounds for termination of this Agreement and any or all SOWs by Company for cause.

(i) **No Actions Pending**. There is no action, suit or proceeding, at law or in equity, before or by any court or governmental authority, pending or, to the best of Provider's knowledge, threatened against Provider, wherein an unfavorable decision, ruling or filing would materially adversely affect the performance by Provider of its obligations hereunder or the other transactions contemplated hereby, or which, in any way, would adversely affect the enforceability of this Agreement, or any other agreement or instrument entered into by Provider in connection with the transactions contemplated hereby. In the event Provider becomes aware of such action, suit or proceeding, Provider shall immediately notify Company.

6.2. Company Representations and Warranties

6.2.1. Company represents and warrants to Provider that:

(a) **Conflicts**. The execution, delivery and performance of this Agreement by Company does not conflict with any agreement, instrument or understanding, oral or written, to which it is a party or by which it may be bound, and does not violate any law or regulation of any court, governmental body or administrative or other agency having authority over it. Company is not currently a party to, and during the term of this Agreement will not enter into, any agreements, oral or written, that are inconsistent with its obligations under this Agreement or any SOW.

(b) **Authority**. Company is validly existing and in good standing under the laws of the jurisdiction of its organization and has the power and authority to enter into this Agreement. This Agreement has been duly executed and delivered by Company and constitutes the valid and binding obligation of Company, enforceable against it in accordance with its terms. The execution, delivery and performance of this Agreement has been duly authorized by all necessary actions on the part of Company, its officers and directors.

7. Proprietary Rights

7.1. **Company's Materials**. All drawings, materials, specifications, designs, clinical trial information and results, regulatory interaction information and other data of any nature furnished by Company to Provider for the performance of the Services may be used by Provider only in connection with its performance of the Services and shall remain the property of Company. Any notes, analyses, compilations studies, interpretations, memoranda or other documents prepared by Provider which contain, reflect or are based on, in whole or in part, Company proprietary materials shall be treated as Company proprietary materials. Upon termination or expiration of this Agreement, Provider shall promptly return all Company proprietary materials and shall certify to Company that all notes, analyses, compilations studies, interpretations, memoranda or other documents prepared by Provider which contain, reflect or are based on, in whole or in part, Company proprietary materials have been destroyed. Company shall retain all rights, title and interest in and to such materials, including, without limitation, patents, copyrights and other intellectual property rights in any ideas, concepts, designs, inventions and expressions embodied in such materials. No license, right or ownership interest in Company proprietary information is conveyed to Provider, except that Provider may use Company proprietary materials during the term of this Agreement to perform Services. Notwithstanding any provision to the contrary, Provider shall retain full ownership rights in its processes and business methods which are not unique to Company. Company shall retain all ownership interest in its intellectual property.

8. Insurance Requirements

Prior to the commencement of any Services under this Agreement or any SOW, Provider shall provide and maintain such insurance coverage as will protect it and Company from all claims which may arise out of or result from Provider's performance under this Agreement and any SOW, whether such operations be by itself or by its Personnel or by anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable.

8.1. The insurance required under Section 8.1 above shall be written for not less than any limits of liability specified herein or as required by law, whichever is greater. Provider shall have the right to provide the total limits required by any combination of primary and Umbrella/Excess coverage; said insurance to include, without limitation, the following:

(a) Insurance for liability under the Workers' Compensation or occupational disease laws of any state or other jurisdiction in which the Services are performed (or be a qualified self-insurer in those states and jurisdictions) or otherwise applicable with respect to persons performing the Services and Employer's Liability insurance covering all claims by or in respect to the employees of Provider and all Consultants, providing:

(i). Coverage for the statutory limits of all claims under the applicable State Workers' Compensation Act or Acts.

(ii). Employer's Liability Insurance with a limit of not less than $1,000,000;

(iii). Voluntary Compensation insurance covering all employees not subject to the applicable state Workers' Compensation Act or Acts.

(b) Commercial General Liability insurance with the following limits and forms/endorsements:

Each Occurrence	$1,000,000
Products & Completed Operations Aggregate	$2,000,000

(c) In the event Provider is furnishing design services or other professional services, Provider shall obtain Professional Liability or Errors & Omissions Insurance for the Services. Such insurance shall have a limit of $1,000,000 per occurrence. Coverage shall be maintained for a period of (3) years following final completion and acceptance of the Services specified in Scope of Work.

(d) Umbrella (Excess) Liability Coverage (follow form) in an amount not less than $1,000,000 per occurrence.

(e) If Provider has care, custody or control of Company property or inventory, Provider shall be responsible for any loss or damage to it, and provide all risk Property Coverage at full replacement cost for same.

9. Records and Audits

9.1. **Records**. Provider will maintain complete and accurate records of all matters relating to Services that enable Provider to demonstrate compliance with its obligations under this Agreement and any SOW, including, without limitation, Provider's compliance with applicable laws and regulations. Financial records such as, but not limited to, time sheets, billing records, invoices, payment applications, payments of consultants and receipts relating to reimbursable expenses shall be maintained in accordance with generally accepted accounting principles. As used in this provision, records include books, documents, accounting procedures and practices, and other data regardless of type or form. Provider shall maintain such records for a period of six (6) years after the expiration or termination of (x) this Agreement or (y) the last SOW in effect, whichever occurs later.

9.2. **Audits**. Company or its representatives including but not limited to Company's external auditors, may audit such records of Provider at any time during the term of this Agreement during normal business hours and upon reasonable notice to Provider. Provider shall make such records readily available for such audit. Any adjustment to charges by Provider to Company as a result of such inspection shall (i) be paid to Company within ten (10) days if the changes are in Company's favor or (ii) shall be added to Provider's next invoice to Company if in Provider's favor.

10. Term and Termination

10.1. **Term**. This Agreement shall be effective as of the Effective Date and shall remain in effect for a period of three (3) years, unless sooner terminated as provided under this Agreement (the "Initial Term"). This Agreement shall automatically renew for additional one (1) year terms thereafter, unless either Party delivers written notice of non-renewal to the other Party at least ninety (90) days prior to the expiration of the initial or any renewal term or this Agreement is otherwise terminated as set forth herein.

10.2. **Termination by Company for Convenience**. Company may terminate this Agreement or all or any part of any SOW at any time without cause and in its sole discretion upon ninety (90) days prior written notice to Provider. In the event of such termination of any SOW by Company for convenience, Company shall pay Provider in accordance with the terms of this Agreement and the applicable SOW for all Services performed in conformance with the terms of this Agreement and the applicable SOW prior to the effective date of such termination.

10.3. **Termination for Cause**. Either Provider or Company may terminate this Agreement and/or any and all SOWs for cause immediately upon written notice to the other Party in the event that such other Party materially breaches this Agreement, which breach remains uncured for thirty (30) calendar days following written notice to such Party of the deficiency. In the event the material breach solely relates to an SOW, then the non-breaching Party may only terminate such SOW under this Section. In the event of termination of any SOW by Company under this Section, Company shall pay Provider in accordance with the terms of this Agreement and the applicable SOW for Services performed in conformance with the terms of this Agreement and the applicable SOW prior to the effective date of such termination.

10.4. **Termination for Insolvency**. In the event that either Party (the "Insolvent Party"): (i) becomes insolvent, or institutes or has instituted against it a petition for bankruptcy or is adjudicated bankrupt; (ii) executes a bill of sale, deed of trust, or a general assignment for the benefit of creditors; (iii) is dissolved or transfers a substantial portion of its assets to a third party as part of any such insolvency proceeding or reorganization; or (iv) a receiver is appointed for the benefit of its creditors, or a receiver is appointed on account of insolvency; then the Insolvent Party shall immediately notify the other Party of such event and such other Party shall be entitled to: (a) terminate this Agreement and/or any or all SOWs for cause immediately upon written notice to the Insolvent Party or (b) request that the Insolvent Party or its successor provide adequate assurances of continued and future performance in form and substance acceptable to such other Party, which shall be provided by the Insolvent Party within ten (10) calendar days of such request, and the other Party may terminate this Agreement and/or any or all SOWs for cause immediately upon written notice to the Insolvent Party in the event that the Insolvent Party fails to provide such assurances acceptable to the other Party within such ten (10) day period. Notwithstanding the foregoing, and for the avoidance of doubt, Provider shall have no right to terminate this Agreement in the event of a change of control of Company as a result of financing or merger and acquisition activity. As used in this Agreement, a change of control shall mean a transaction or series of transactions through or as a result of which the owners of the Company prior to such transaction or series of transactions own less than 50% of the voting interest of the Company or otherwise cease to hold sufficient voting interest to direct the management decisions of the Company.

10.5. **Effect of Termination or Expiration**. Any termination or expiration of this Agreement shall not terminate or affect the obligations of the Parties to each other under existing SOWs issued pursuant to this Agreement, and such SOWs shall continue in full force and effect and shall continue to be governed by the terms of this Agreement until their expiration or completion or until any such SOWs are themselves terminated pursuant to this Article.

10.6. **Transitional Services**. Provider, if requested by Company, agrees to use reasonable commercial efforts to assist Company in the transition of the performance of the Services in those instances where Company elects to use another provider or its own employees to perform the Services ("Transitional Services"). Provider's compensation for such Transitional Services shall be comparable to the rates for similar services provided by Provider, but shall in no event exceed the rates Provider charges for the Services.

10.7. **Survival of Obligations**. The termination or expiration of this Agreement or any SOW shall not affect the survival and continuing validity of Articles 4 (Payments, but only to the extent of fees and expenses incurred prior to such termination or expiration), 7 (Proprietary Rights), 8 (Insurance Requirements), 9 (Records and Audits), 10 (Term and Termination), 11 (Confidentiality), 12 (Indemnification) and 13 (Miscellaneous).

11. Confidentiality

11.1. **Confidential Information**. "Confidential Information" shall mean all information relating to Company's or Provider's business or business plans, including but not limited to suppliers, customers, prospective customers, contractors, clinical data, the content and format of various clinical and medical databases, utilization data, cost and pricing data, disease management data, software products, programming techniques, data warehouse and methodologies, all proprietary information, know-how, trade secrets, technical and non-technical materials, products, specifications, processes, sales and marketing plans and strategies, designs, and any discussions and proceedings relating to any of the foregoing, whether disclosed in oral, electronic, visual, written or any other form, disclosed to the other Party. Confidential Information includes, without limitation, the terms and conditions of this Agreement and any SOW. Company shall own any Confidential Information generated by Company or Provider in the course of the Services, only to the extent such Confidential Information is entirely unique to Company or Company products, including but not limited to data regarding and use of Company products. Confidential Information shall not include information which is: (i) known to a Party or its Personnel which have been reduced to writing prior to disclosure by the Party and that are not subject to another obligation of secrecy; (ii) hereafter lawfully obtained from other sources on a non-confidential basis; or (iii) otherwise generally available to the public, absent any breach of this Section 11 by the Party.

11.2. **Restricted Disclosure and Use of Confidential Information**. Provider and Company shall keep strictly confidential and not disclose to any third party Confidential Information of the other Party. Each Party shall not use, and shall not permit its Personnel to use, the Confidential Information except in accordance with this Agreement. In the event a Party becomes aware of any breach of the confidentiality and non-use obligation contained in this Section by it or its Personnel, the Party shall promptly notify the other Party of such breach.

11.3. **Permitted Disclosures**. Notwithstanding the foregoing, Confidential Information may be disclosed by a Party to the extent required: (a) for the performance of Provider's Services; (b) in order to comply with professional standards of conduct to which Provider may be bound by law for preservation of the public safety, health, and welfare; and (c) in order to comply with any court order, statute or governmental directive. In the event that such court order, statute or governmental directive requires disclosure of Confidential Information, to the extent permitted by law the disclosing Party shall provide prompt notice to the other Party before such Confidential Information is disclosed and cooperate with the other Party if the other Party seeks a protective order or other appropriate remedy for such Confidential Information, and if no such protective order or other remedy is obtained, the disclosing Party will furnish only that portion of the Confidential Information which it is advised by its counsel it is legally required to furnish.

11.4. **Precautions**. In order to comply with its confidentiality and non-use obligations, each Party shall take at least the following precautions: (a) exercise all reasonable efforts to prevent unauthorized employees and unauthorized third parties from gaining access to Confidential Information; (b) disclose Confidential Information only to such of its Personnel who have a need to know such Confidential Information; provided, however, before any release of Confidential Information, each Party shall bind its Personnel receiving such Confidential Information to a written agreement of confidentiality at least as restrictive as this Agreement; and (c) prior to any disclosure, each Party shall instruct its Personnel of the confidential nature of, and to maintain the confidentiality of, the Confidential Information. Each Party shall be responsible for all actions of its Personnel, including without limitation any breach of the terms hereof.

11.5. **Survival**. Upon the later of a Party's request or termination or expiration of this Agreement, the other Party shall promptly return all of the Confidential Information. However, each Party may retain one copy of any written documents containing Confidential Information in its confidential files for the sole purpose of determining its continuing obligations under this Agreement.

12. **Indemnification; Limitation of Liability**

12.1. **Indemnification**. Each party shall indemnify and hold harmless the other party, its affiliates and their respective officers, directors, managers, members, shareholders, employees and other agents and representatives, from and against any claims, liabilities, damages, judgments or other losses (including reasonable attorneys' fees) imposed upon or incurred by them arising out of or as a result of any grossly negligent act or omission or willful misconduct by such party, except to the extent that such claims, liabilities, damages, judgments or other losses arise from the bad faith, willful misconduct or gross negligence of the party seeking indemnification hereunder. A Party seeking indemnification (the "Indemnified Party") from the other Party shall give prompt notice to the other Party (the "Indemnifying Party") of the claim and shall inform the Indemnifying Party of all facts and circumstances related to the claim. The Indemnified Party shall permit the Indemnifying Party to fully control the defense of such claim using counsel of the Indemnifying Party's choice at the Indemnifying Party's expense, and shall cooperate fully with the Indemnifying Party and the Indemnifying Party's selected counsel in connection with the defense and resolution of such claim.

12.2. **Limitation of Liability**. EXCEPT AS EXPRESSLY PROVIDED IN THIS AGREEMENT, NEITHER PARTY SHALL BE LIABLE TO THE OTHER PARTY FOR ANY INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING WITHOUT LIMITATION, DAMAGES RESULTING FROM LOSS OF USE, LOSS OF PROFITS, INTERRUPTION OR LOSS OF BUSINESS, LOST GOODWILL, LOST REVENUE AND LOST OPPORTUNITY) ARISING OUT OF ANY OF THE TERMS OR CONDITIONS OF THIS AGREEMENT OR WITH RESPECT TO ITS PERFORMANCE HEREUNDER. The foregoing limitation of liability and exclusion of damages applies even if a Party had or should have had knowledge, actual or constructive, of the possibility of such damages. The foregoing limitation of liability and exclusion of damages shall apply whether a claim is based on breach of contract, breach of warranty, tort (including negligence), product liability, strict liability or otherwise, and notwithstanding any failure of essential purpose of any limited remedy herein.

13. **Miscellaneous**

13.1. **Notices**. Any notice required to be given hereunder shall be in writing and deemed to have been sufficiently given, (i) when delivered in person, (ii) on the fifth business day after mailing by registered or certified mail, postage prepaid, return receipt requested, or (iii) on the next business day after mailing by overnight courier service, to the addresses specified below:

If to Company:	electroCore LLC 150 Allen Road. Suite 201 Basking Ridge, NJ 07920
Attn:	President
If to Provider: Attn:	Asembia LLC General Counsel Provider Legal: 200 Park Ave, Suite 300 Florham Park, New Jersey 07932

Provider or Company may, by notice to the other, change the addresses and names given above.

13.2. **Governing Law, Waiver of June Trial and Dispute Resolution.**

13.2.1. **Negotiations of Dispute**. With respect to any controversy, claim, counterclaim, dispute, difference or misunderstanding arising out of or relating to the interpretation or application of any term or provisions of this Agreement or an SOW or any related documents, a Party shall provide written notice to the other Party of the existence of such dispute. The Parties shall for a period of thirty (30) days following such notice, enter into good faith discussions and negotiations in an attempt to resolve such dispute. If, by the end of such thirty (30) day period, unless such period is extended by mutual agreement of the Parties, the Parties have been unable to resolve such dispute, either Party may initiate litigation. The procedures specified in this Section is a precondition to the initiation of litigation by a Party, in connection with disputes between the Parties arising out of or relating to this Agreement and any SOW; provided, however, that a Party may seek a preliminary injunction or other preliminary judicial relief, without attempting to resolve such dispute as provided in this Section, if in its judgment such action is necessary to avoid irreparable harm. Further, the requirement to attempt to resolve a dispute in accordance with this Section 13.2.1 does not affect a party's right to terminate this Agreement or an SOW as provided in Section 10 hereof.

13.2.2. **Governing Law**. The validity, interpretation and performance of this Agreement shall be governed by and construed in accordance with the laws of the State of New Jersey without regard to the principles of conflicts of law.

13.2.3. **Waiver of Jury Trial**. In any controversy or claim, whether based in contract, tort or other legal theory, arising out of or relating to this Agreement, SOWs or any related documents, their negotiation, enforceability or validity, or the performance or breach thereof or the relationships established thereunder, all Parties hereby waive their right to trial by jury.

13.2.4. **Continuing Work during Dispute**. Pending resolution of any dispute under this Agreement or any SOW by settlement or by final judgment, Provider shall proceed diligently with its performance in accordance with this Agreement and the applicable SOW, and maintain the project schedule during any dispute proceedings unless otherwise instructed by Company.

13.3. **Independent Contractor**. Provider shall perform the Services as an independent contractor with exclusive control of the manner and means of performing the Scope of Work in accordance with the requirements of this Agreement and the SOW. Provider has no authority to act or make any agreements or representations on behalf of Company or its affiliates. This Agreement or SOW is not intended to create, and shall not be construed as creating, between Company and Provider, the relationship of principal and agent, joint venturers, co-partners or any other such relationship, the existence of which is hereby expressly denied. No employee, or agent engaged by Provider shall be, or shall be deemed to be, an employee or agent of Company or its affiliate and shall not be entitled to any benefits that the Company or its affiliate provides to its own employees.

13.4. **No Publicity**. Neither Party shall use the name, trade name, service marks, trademarks, trade, dress or logos of the other Party in publicity releases, advertising or any other publication without the prior written consent of that Party.

13.5. **Amendments**. No modification, alteration of this Agreement or any SOW, amendments, work orders or other related documents shall be binding upon the Parties unless contained in a writing signed by a duly authorized agent for each respective Party and specifically referring hereto or thereto.

13.6. **Force Majeure**. No Party shall be liable for any failure to perform or any delays in performance, and no Party shall be deemed to be in breach or default of its obligations set forth in this Agreement and any SOWs, if, to the extent, and for as long as such failure or delay is due to any causes that are beyond its reasonable control and not to its acts or omissions, including, without limitation, such causes as acts of God, fire, flood, severe storm, earthquake, civil disturbance, lockout, riot, order of any court or administrative body, embargo, acts of government, war (whether or not declared), acts of terrorism, or other similar causes ("Force Majeure Event"). For clarity, labor disputes shall not be deemed a Force Majeure Event. In the event of a Force Majeure Event, the Party prevented from or delayed in performing shall promptly give notice to the other Party and shall use commercially reasonable efforts to avoid or minimize the delay. The Party affected by the other Party's delay may elect to: (a) suspend performance and extend the time for performance for the duration of the Force Majeure Event or (b) cancel all or any part of the unperformed part of this Agreement or any applicable SOW.

13.7. **Rule of Construction**. The Parties have participated jointly in the negotiation and drafting of this Agreement. In the event that an ambiguity or question of intent or interpretation arises, this Agreement shall be construed as if drafted jointly by the Parties and no presumption or burden of proof shall arise favoring or disfavoring any Party by virtue of the authorship of any of the provisions of this Agreement.

13.8. **No Waiver**. A waiver by a Party of any term or condition of this Agreement or SOW in any instance shall not be deemed or construed to be a waiver of such term or condition for the future, or of any subsequent breach thereof.

13.9. **Severability**. If and to the extent that any court or tribunal of competent jurisdiction holds any provision of this Agreement or any SOW to be unenforceable in a final non-appealable order, such unenforceable provision shall be stricken and the remainder of this Agreement shall not be affected thereby. Company and Provider shall in good faith attempt to replace any unenforceable provision of this Agreement or the SOW with a provision that is enforceable and that comes as close as possible to expressing the intention of the original provision.

13.10. **Headings**. Headings of sections or other parts of this Agreement and SOWs are included herein for convenience of reference only, and shall not constitute a part of this Agreement and SOWs or change the meaning of this Agreement and SOWs, as the case may be.

13.11. **Entire Agreement**. This Agreement, together with any SOW, amendments, work orders or other related documents, constitutes the entire agreement of the Parties with respect to its subject matter and merges and supersedes all prior discussions and writings with respect thereto.

13.12. **Binding Effect**. This Agreement shall apply to, inure to the benefit of and be binding upon the Parties hereto and upon their respective successors and permitted assigns. The Parties agree that this Agreement is not intended by any Party to give any benefits, rights, privileges, actions or remedies to any person or entity, partnership, firm or corporation as a third party beneficiary or otherwise under any theory of law. Notwithstanding the foregoing, and for the avoidance of doubt, this Agreement shall be binding upon and shall inure to the benefit of and be enforceable by any successor in interest to either party through a change of control or otherwise.

13.13. **Counterparts**. This Agreement may be executed in two or more counterparts, each of which shall be deemed to be an original, and all of which shall together constitute one and the same agreement, and shall become effective when signed by each of the parties hereto and delivered to the other party in person or by facsimile or other reliable electronic means. The parties agree that this Agreement, once validly executed, may be stored by electronic means and that either an original or an electronically stored copy of this Agreement can be used for all purposes, including in any proceeding to enforce the rights and/or obligations of the parties to this Agreement.

IN WITNESS WHEREOF, Provider and Company have caused this Agreement to be duly executed and delivered as of the date first written above.

ASEMBIA, LLC		**electroCore, LLC**	
By:	/s/ Benjamin DiMarco	By:	/s/ Glenn S. Vraniak
Name:	Benjamin DiMarco	Name:	Glenn S. Vraniak
Title:	General Counsel	Title:	CFO
Date:	10-17-2016	Date:	10-17-2016

Exhibit 21.1

List of Subsidiaries of electroCore, LLC

Subsidiary	Jurisdiction of Incorporation or Organization
electroCore Bermuda, Ltd.	Bermuda
electroCore Germany GmbH	Germany
electroCore UK Ltd.	United Kingdom

Exhibit 23.2

Consent of Independent Registered Public Accounting Firm

The Board of Directors
Electrocore, LLC, Subsidiaries and Affiliate:

We consent to the use of our report included herein and to the reference to our firm under the heading “Experts” in the prospectus.

/s/ KPMG LLP

Short Hills, New Jersey
May 21, 2018

Exhibit 99.1

CONSENT OF DIRECTOR NOMINEE

ElectroCore, LLC
150 Allen Road, Suite 201
Basking Ridge, New Jersey 07920

Ladies and Gentlemen:

In accordance with Rule 438 promulgated under the Securities Act of 1933, as amended, and in connection with the Registration Statement on Form S-1 (the "Registration Statement") filed by ElectroCore, LLC (the "Issuer"), I hereby consent to being named and described as a prospective member of the board of directors of the Issuer in the Registration Statement and any amendment thereto. I also consent to the filing of this consent as an exhibit to such Registration Statement and any amendments thereto. I confirm that I intend to join the board of directors of the Issuer if (i) I am appointed to such board by the existing board and (ii) the closing of the initial public offering of common stock of the Issuer has occurred.

Dated: May 21, 2018

/s/ Michael G. Atieh
Michael G. Atieh

Exhibit 99.2

CONSENT OF DIRECTOR NOMINEE

ElectroCore, LLC
150 Allen Road, Suite 201
Basking Ridge, New Jersey 07920

Ladies and Gentlemen:

In accordance with Rule 438 promulgated under the Securities Act of 1933, as amended, and in connection with the Registration Statement on Form S-1 (the "Registration Statement") filed by ElectroCore, LLC (the "Issuer"), I hereby consent to being named and described as a prospective member of the board of directors of the Issuer in the Registration Statement and any amendment thereto. I also consent to the filing of this consent as an exhibit to such Registration Statement and any amendments thereto. I confirm that I intend to join the board of directors of the Issuer if (i) I am appointed to such board by the existing board and (ii) the closing of the initial public offering of common stock of the Issuer has occurred.

Dated: May 21, 2018

/s/ Stephen L. Ondra
Stephen L. Ondra