



A Commercial-Stage Bioelectronic  
Medicine Company

Corporate Presentation  
October 2019



# Disclaimer

In addition to historical information, this presentation may contain forward-looking statements with respect to our business, capital resources, strategy and growth reflecting the current beliefs and expectations of management made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. All forward-looking statements are subject to a number of risks, uncertainties and assumptions, and you should not rely upon forward-looking statements as predictions of future events. All forward-looking statements will be based upon current estimates and expectations about future events and financial and other trends. There is no guarantee that future results, performance or events reflected in the forward-looking statements will be achieved or occur. No person assumes responsibility for the accuracy and completeness of the forward-looking statements, and, except as required by law, no person undertakes any obligation to update any forward-looking statements for any reason after the date of this presentation.

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# electroCore At-a-Glance

NASDAQ: ECOR

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Headquarters: Basking Ridge, NJ

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No. of employees: 50

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Market cap: ~\$55M (10/1/19)

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Recent close: \$1.86 (10/1/19)

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Cash & marketable securities (6/30/19): \$41.1M

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Expected cash runway into beginning of 2021



gammaCore  
Sapphire™

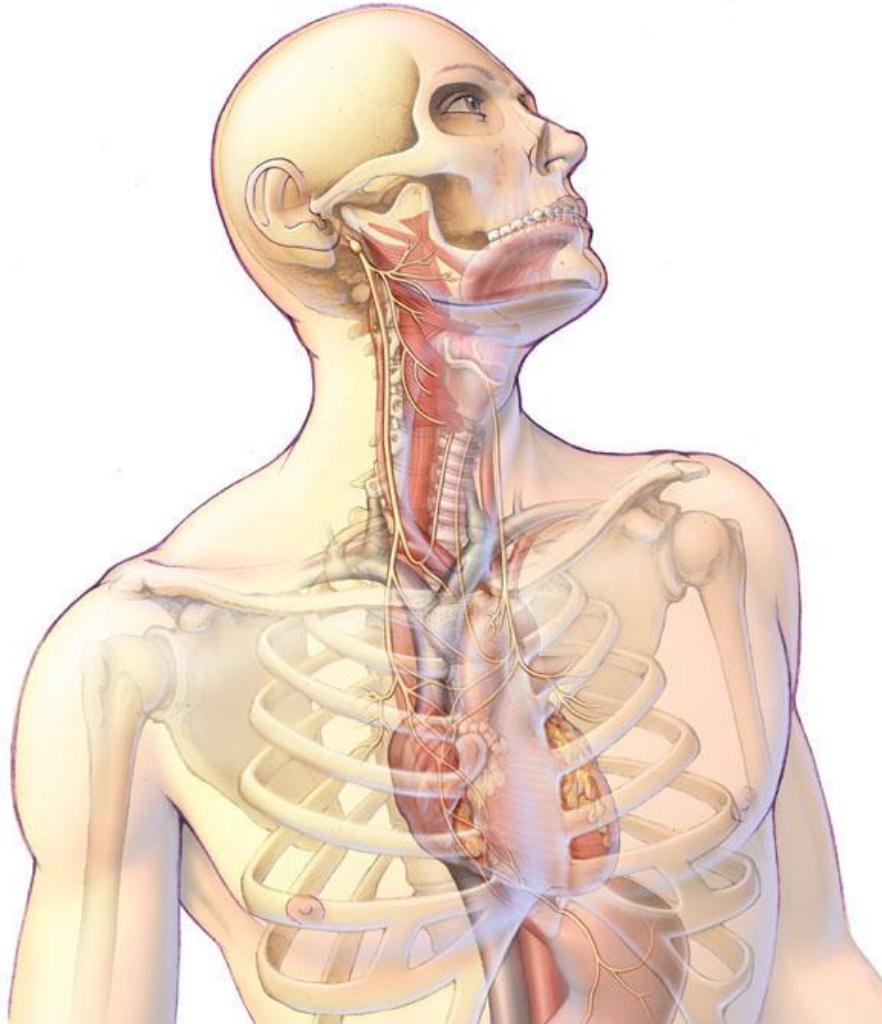
# Investment Highlights

<b>Platform Therapy</b>	Only FDA-cleared non-invasive vagus nerve stimulator positioned to unlock the broad potential of bioelectronic medicine
<b>Pharma Distribution</b>	Distributed through standard specialty pharmacy channels
<b>Large Initial Market</b>	Primary headache market opportunity for cluster headache and migraine estimated to be in excess of \$4 billion
<b>Pipeline in a Product</b>	Opportunity to expand into additional large-markets, including neurology and rheumatology
<b>High Margins</b>	Low one-time, upfront device cost followed by high-margin electronic refill model
<b>Strong IP Portfolio</b>	Key patent coverage extends through 2033

# Portfolio & Pipeline

Indication	PreClinical / Pilot Trials	Pivotal Trials	FDA Clearance	Commercial Launch	Key Milestones
Acute Treatment of Episodic Cluster Headaches	ACT 1 & 2				FDA clearance April 2017 Full commercial launch 3Q 2018 Final NICE guidance in 4Q 2019
Acute Treatment of Migraine	PRESTO				FDA label expansion January 2018 Full commercial launch 3Q 2018 Possible start of adolescent migraine study (ATOM) in 1H 2020
Cluster Headache Prevention	PREVA				FDA label expansion November 2018 Full commercial launch 4Q 2018
Migraine Prevention	PREMIUM 1 & 2				Final PREMIUM 1 data published in September 2019 50% of PREMIUM 2 enrollment achieved in 4Q 2019 Additional feedback on FDA submission in 4Q 2019
Neurology					Ongoing proof-of-concept investigator-initiated trials in secondary headache, stroke, PTSD and gait disturbance in Parkinson's
Gastroenterology					Ongoing proof-of-concept investigator-initiated trials in gastroparesis and post-operative ileus
Inflammation					Ongoing proof-of-concept investigator-initiated trials in rheumatoid arthritis, Sjogren's syndrome and others

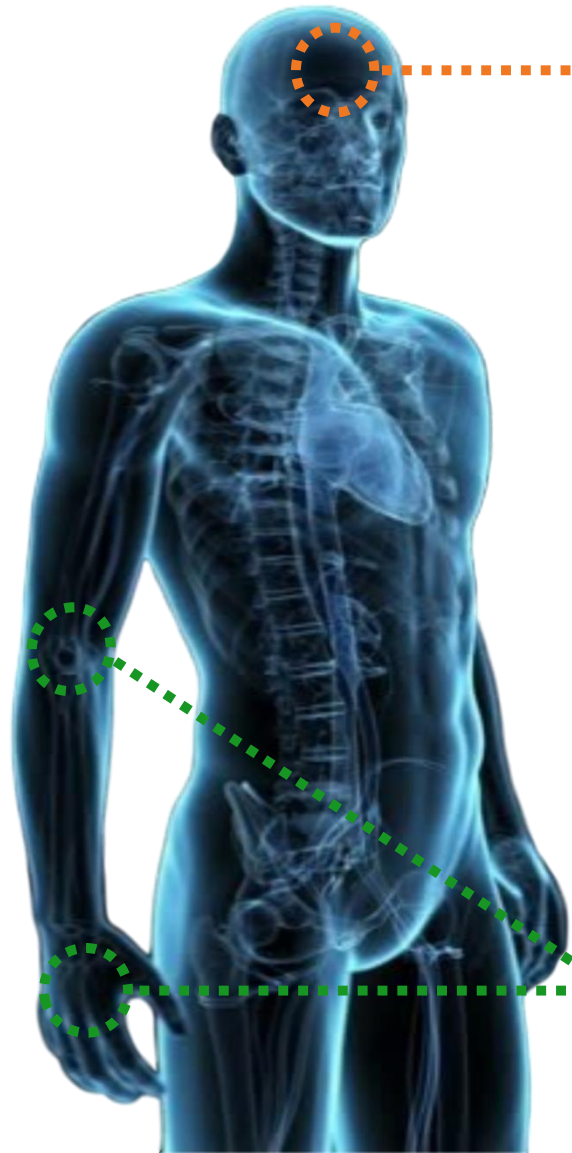
# The Vagus Nerve



The longest cranial nerve in the body; the communication link between the brain and the body

*Stimulation of the vagus nerve affects many important autonomic functions in the brain and in the body, including neurotransmitter levels, inflammation levels, and metabolism*

# Clinical Potential of VNS



## Neurological Disorders

In the CNS, VNS effects *are similar to multiple major classes of drugs, including SSRIs, SNRIs, GABA analogues, and acetylcholine esterase inhibitors*

Peripherally, VNS affects immune activity, *suppressing the expression of TNF- $\alpha$  and other inflammatory cytokines*, resulting in effects similar to drugs used to suppress severe inflammation

## Autoimmune Diseases



Bluetooth-  
enabled

Hand-held,  
simple-to-use,  
highly targeted  
therapy

Rechargeable  
unit refilled by  
RFID cards



# gammaCore Sapphire™

1<sup>st</sup> FDA-cleared non-invasive  
vagus nerve stimulator

- Fast acting, comfortable option for **acute treatment and prevention**, with only local, mild, and transient side effects
- Initial indications in **cluster headache and migraine**
- **Unique RFID card authorization** system for on-site specialty pharmacy encoding
- **Bluetooth-enabled** for novel web-based delivery of the therapy



# Unmet Need in Cluster Headache & Migraine

20X

Cluster Headache

Suicide rate vs. the U.S. average



**350,000 U.S. patients (approx. market \$400M<sup>1</sup>)**

Up to eight 15-180 min attacks per day

Typically occur 4-24 weeks per year

Only FDA-cleared therapy for acute and preventive treatment of Cluster Headache

#3

Migraine

Most prevalent illness



**36 million U.S. patients (\$3.8B<sup>1</sup> approx. market)**

Triptans represent 80% of prescribed acute therapies

40% of patients are dissatisfied or unresponsive to triptans<sup>2</sup>

More than half of insured migraineurs are untreated<sup>2</sup>

1. Estimated addressable market, based on industry sources.
2. IMS Pharmetrics Plus.

# Non-Invasive Therapy vs. Drug Alternatives

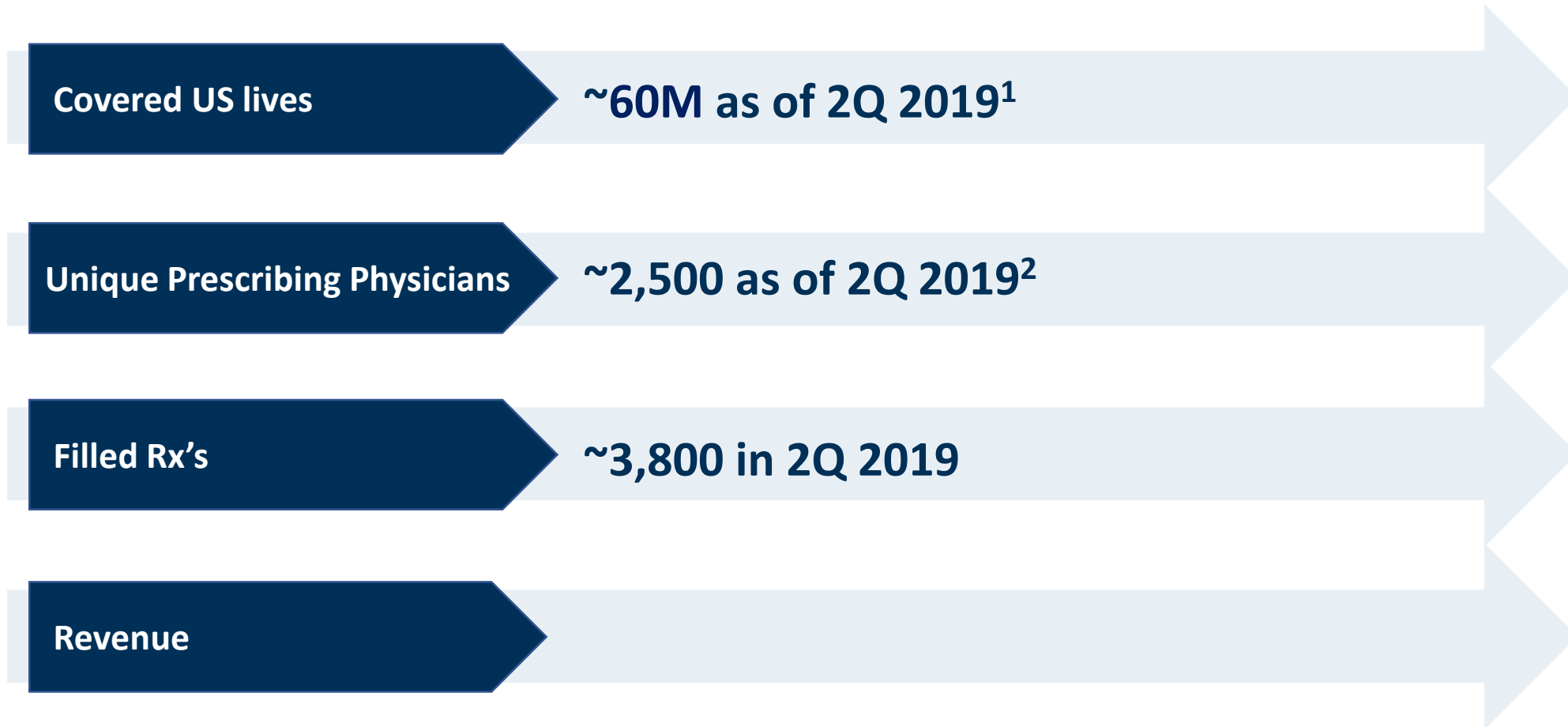
## Benefits of gammaCore

- ☒ Targeted non-systemic
- ☒ Safe and well tolerated
- ☒ Patient self-administered
- ☒ Flexible daily dosing
- ☒ Vast patient experience (~5M doses)

## Drawbacks of Current Drug Treatments

- ☒ Systemic side effects
- ☒ Serious adverse events
- ☒ Potential drug/drug interactions
- ☒ CVD contraindications
- ☒ Potential for medication overuse headache

# Market Penetration & Development Strategy



***Go-forward strategy: pull coverage contracts through to revenue***

<sup>1</sup> Includes non-preferred medical and pharmacy reimbursement for approximately 10 million lives, medical exception coverage for an additional 30 million pharmacy benefit lives and 21 million lives under FSS reimbursement.

<sup>2</sup> Cumulative since product launch

# Pathway to Reimbursement

Aligned to stakeholder experience



## PHYSICIANS

Write a prescription  
for use at home



## PATIENTS

Acquire gammaCore from  
a specialty pharmacy with  
simple refill process



## PAYERS

Manage utilization  
through pharmacy or  
medical benefit  
reimbursement

## Commercial payer Response

### Current Payer Relationships

- CVS Caremark, Highmark, FSS reimbursement for ~ 60M lives as a pharmacy benefit<sup>1</sup>

### Payer Engagement

- Active discussions and negotiations with multiple national plans covering ~90M additional lives

### Reimbursement Path

- Prescription model with monthly refill; can be reimbursed as pharmacy or medical benefit

### Suggested Payment

- No major payer hurdles to current pricing

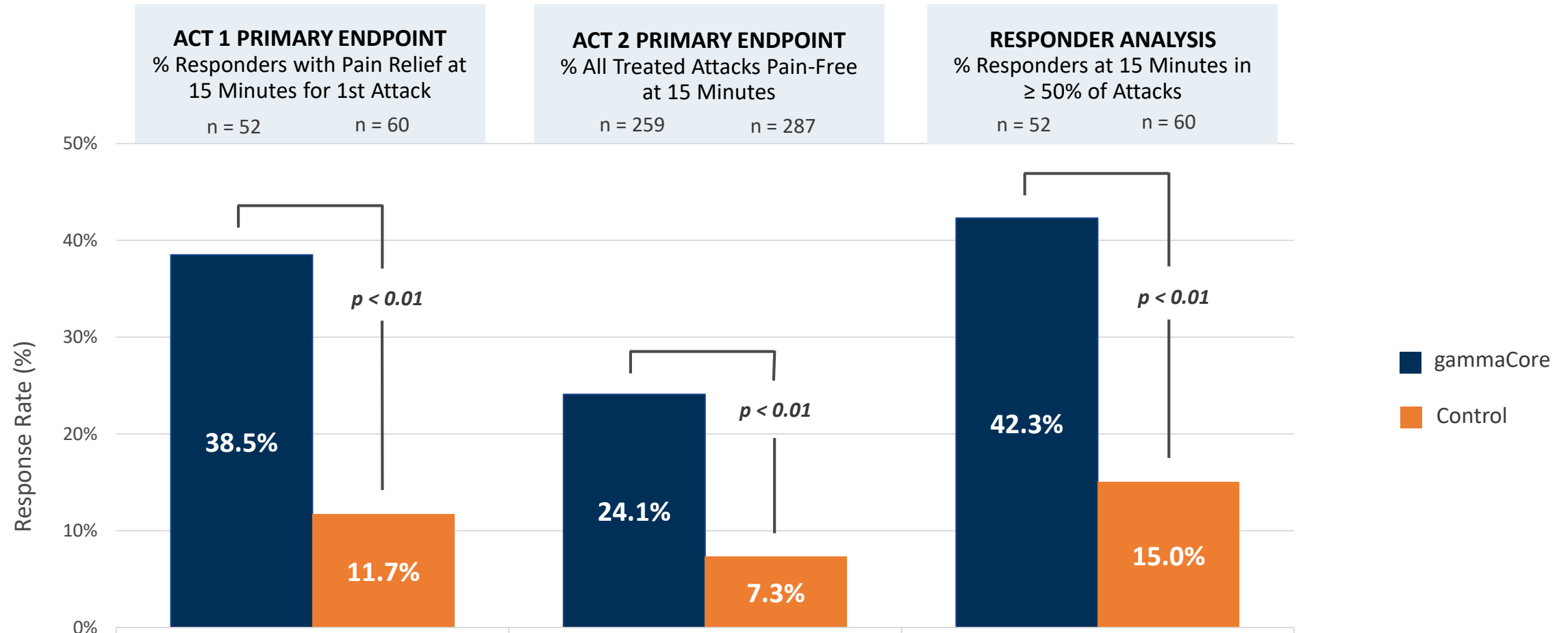
<sup>1</sup> Includes non-preferred medical and pharmacy reimbursement for approximately 10 million lives, medical exception coverage for an additional 30 million pharmacy benefit lives and 21 million lives under FSS reimbursement.

# Channels With Potential for Revenue Growth Now

- Driving FSS/VA-DoD contract sales - ***started January 15<sup>th</sup>***
- Pulling through the UK – Innovation Technology Program Award for CH – ***started May 1<sup>st</sup>***
- Finalized Pain Management Initiative with Leading Workers' Comp provider – ***signed and pending launch***
- Pursuing enhanced CVS/Caremark agreement and establishing additional commercial relationships
- Exploring physician dispensing, direct selling model - ***analyzing***
- Exploring reimbursement codes through CMS - opioid legislation includes non-invasive neuromodulation as suggested therapy for reimbursement – ***on-going***

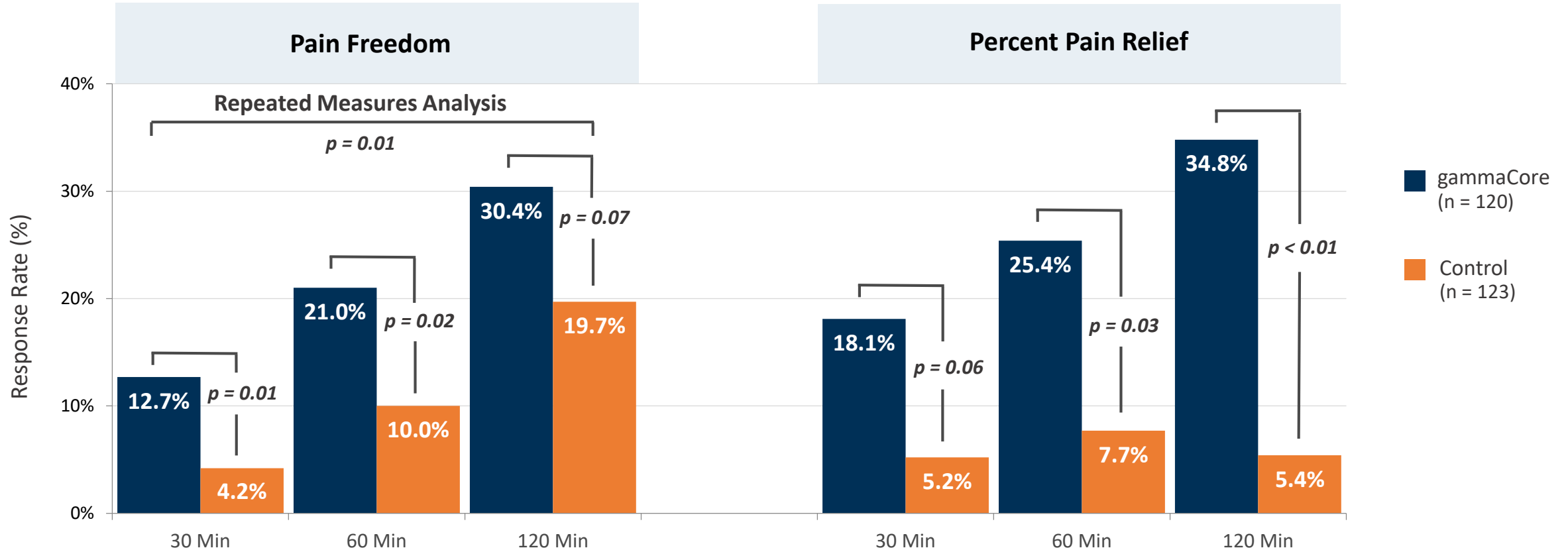
# ✓ Acute Cluster Headache: ACT 1 & ACT 2

Pooled-analysis of Episodic Cluster Headache from ACT 1 & ACT 2 Trials

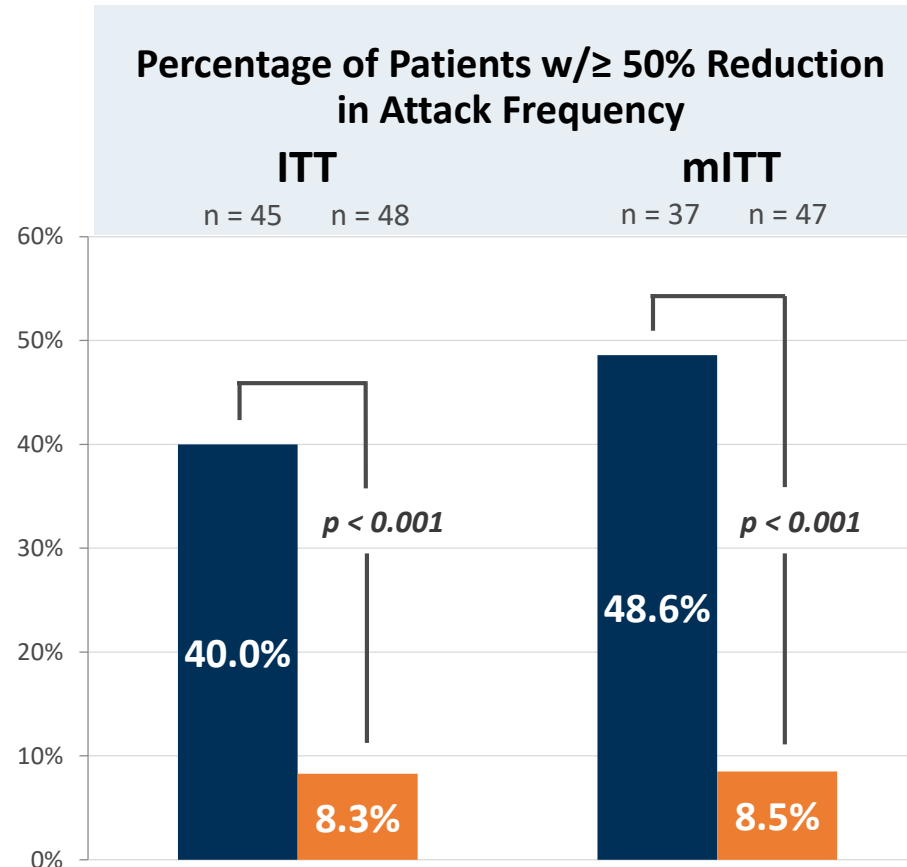
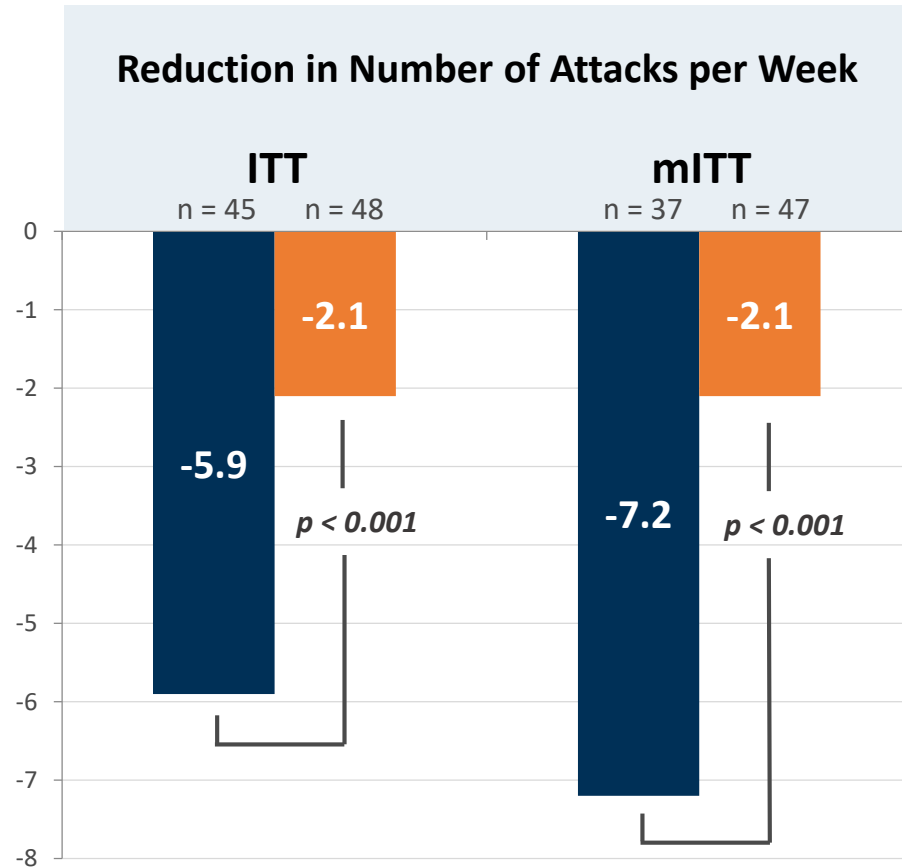




# ✓ Acute Migraine: PRESTO Trial



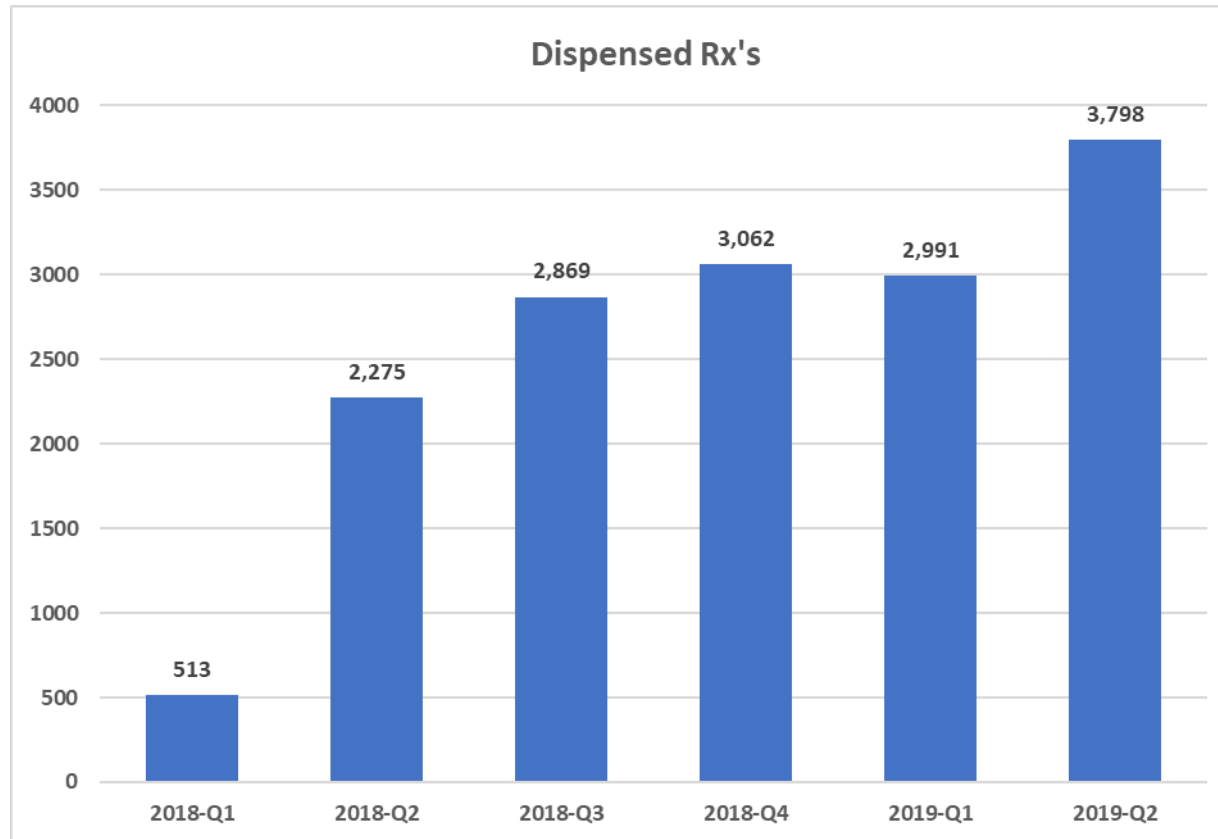
# ✓ Cluster Headache Prevention: PREVA Trial



■ Adjunctive gammaCore  
■ Standard of care

mITT - Patients who provided data in the randomized period sufficient to compare to baseline measurements

# Growth in gammaCore Prescriptions



Updated as of August 19, 2019

~2,500

UNIQUE PRESCRIBING PHYSICIANS  
SINCE PRODUCT LAUNCH

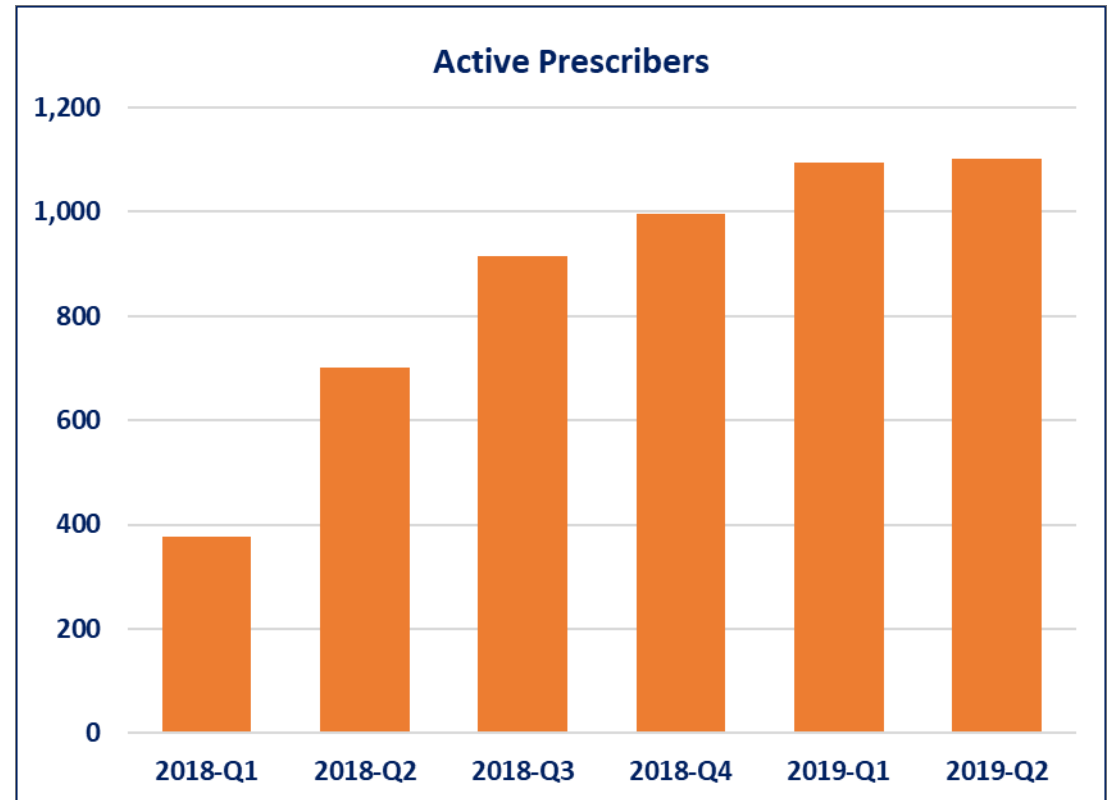
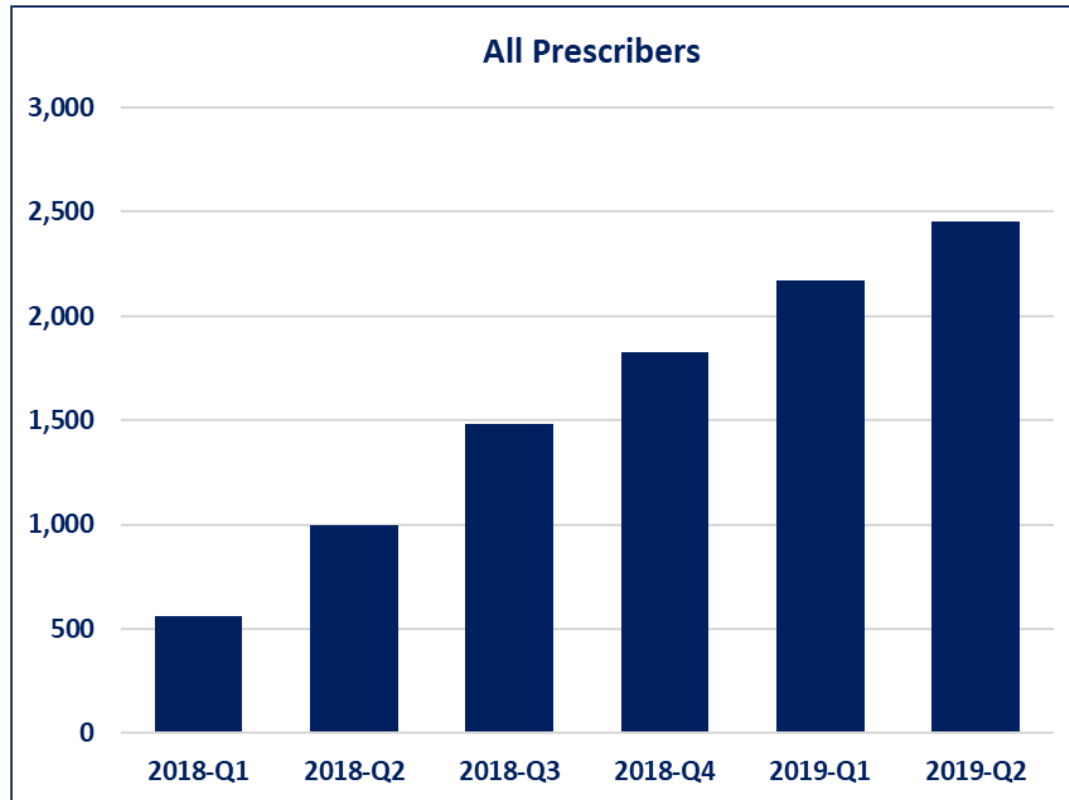
Dispensed Rx's +27%

2Q19 vs. 1Q19

~15,500

PRESCRIPTIONS FILLED TO DATE IN  
THE UNITED STATES

# Growth in gammaCore Prescribers



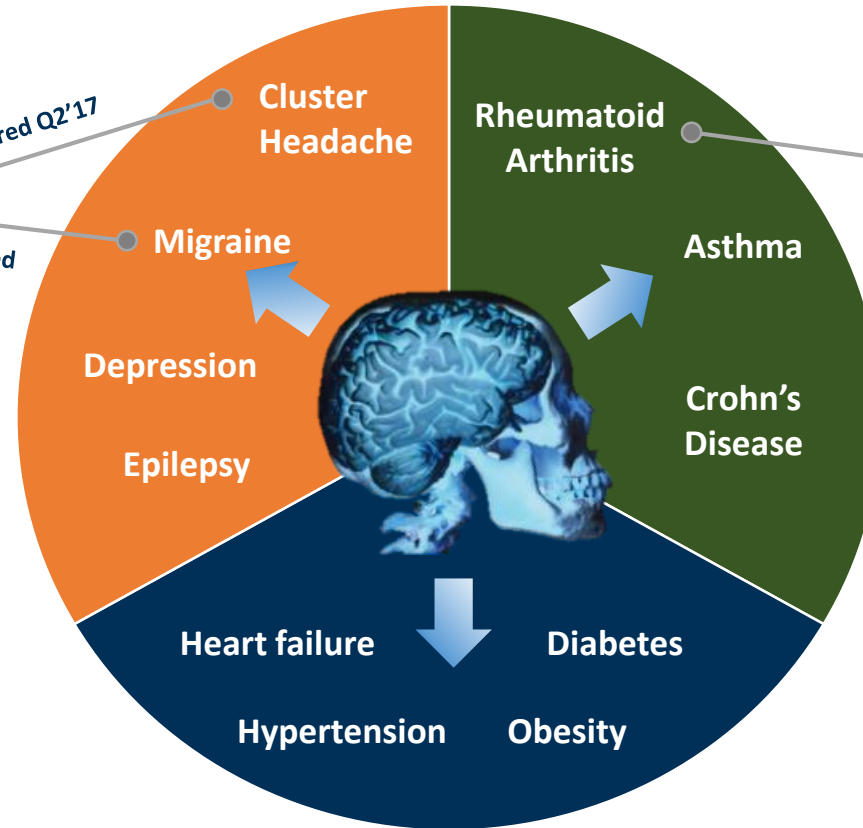
# A Pipeline in a Product

gammaCore is the **only** FDA cleared non-invasive VNS therapy

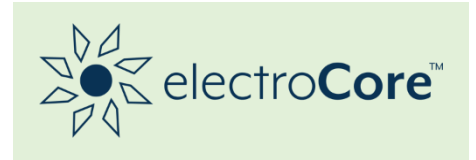
## NEURO-PSYCH



FDA-cleared Q2'17  
FDA-cleared Q1'18



## INFLAMMATION

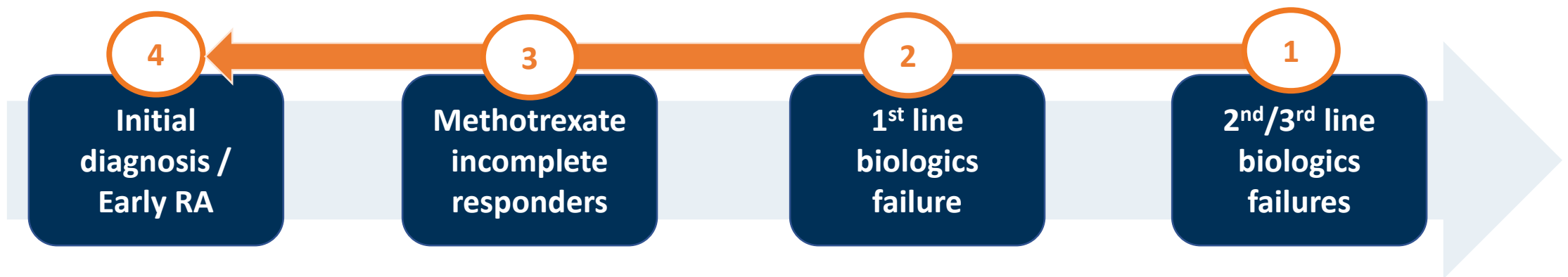


## METABOLIC SYNDROME

# Rheumatoid Arthritis (RA)

- Chronic progressive disease-causing inflammation in the joints and resulting in painful deformity and immobility, especially in the fingers, wrists, feet, and ankles
- Affects approximately 1.3 million people in the US<sup>1</sup> and there are no currently approved non-systemic therapies for RA
- Potential as a cost-effective, non-immunosuppressive alternative to the **\$23.7 billion**<sup>2</sup> anti-TNF drug class

Multiple **penetration points** into the RA market:



<sup>1</sup> <https://www.rheumatology.org/Learning-Center/Statistics/Prevalence-Statistics>

<sup>2</sup> 2017 worldwide sales, source Cowen & Co.



# Broad Intellectual Property Estate

We are inventors/owners of all patents on which therapy relies

## Expansive pioneering IP coverage of non-invasive, transdermal neuro-stimulation in the neck

We have key patent coverage extending out through 2033, including:

- High-frequency burst signals capable of passing comfortably through the skin
- Low-pass signal filtration that reduces signal harmonics that cause pain

**>140**

PATENTS AND PATENT  
APPLICATIONS

**>70**

Issued U.S. patents

**>25**

U.S. patent applications

**>40**

International patents  
and applications

# Key Company Milestones and Goals



1Q 2018 FDA cleared for **acute migraine pain**



2Q 2018 Completed **Initial Public Offering**



3Q 2018 Commercial launch **across US market** (6,500 MDs)



4Q 2018 FDA cleared for **cluster headache prevention**



1Q 2019 Achieved target of **50M** covered lives\*



3Q 2019 Submitted to FDA for **migraine prevention** label expansion

4Q 2019 Update on status of **migraine prevention** submission

1Q 2020 Achieve target of **100M** covered lives

1H 2020 Complete enrollment in PREMIUM 2 trial

\*Includes 21M FSS lives.



# Summary Financials

\$ In thousands	1Q 2018	2Q 2018	3Q 2018	4Q 2018	1Q 2019	2Q 2019
GAAP revenue	81	393	151	368	410	623
Research and Development	2,306	4,367	2,333	3,460	3,460	2,510
SG&A	6,825	12,007	11,273	12,397	11,000	9,388
Operating loss	(9,099)	(16,221)	(13,551)	(15,681)	(14,211)	(12,380)
Net loss	(9,499)	(17,782)	(13,203)	(15,335)	(13,862)	(12,101)
Shares outstanding	NA	29,450	29,450	29,450	29,633	29,582
Cash and investments (6/30)						\$41,134
Shareholders' Equity (6/30)						\$41,756

# Streamlined Clinical Plan

To enhance label expansion and sales

## Pivotal Trials

*Expand indications and use in Headache*

**Premium 2** Migraine Prevention (pivotal), enrolling (180/400) and 100+ Randomized

**ATOM** Adolescent Migraine (pivotal), plan to delay until revenue ramp

## Low-Cost Pilot Studies

*Label expansion beyond primary headache*

**GAP-PTH** Post-traumatic Headache, under IRB review; key to VA focus

**TR-Venus** Treatment of Acute Stroke, enrolling (11/60); majority of funding via external grant

**GENIUS-RA** Treatment-Resistant Rheumatoid Arthritis, enrolling (10/40)

# Extended Cash Runway – Recent Actions

- Reduced annual operating costs by **~\$20 million**, will continue to look for efficiencies
- Reduced the number and scope of clinical projects
- Reduced headcount from **91 to 50**
- Increased focus on near-term revenue opportunities with the least cost as we contract for greater insurance coverage
- Extended cash runway to 2021

# Experienced Management Team



**Daniel Goldberger**  
Chief Executive Officer  
**35 years**



**Tony Fiorino, MD**  
Chief Medical Officer  
**20 years**



**Brian Posner**  
Chief Financial Officer  
**35 years**



**Eric Liebler**  
SVP of Neurology  
**22 years**



**Ardelle Ferris**  
VP of Market Access  
**30 years**





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<b>Large Initial Market</b>	Primary headache market opportunity for cluster headache and migraine estimated to be in excess of \$4 billion
<b>Pipeline in a Product</b>	Opportunity to expand into additional large-markets, including neurology and rheumatology, with key pivotal trials initiated in 2018 and planned for 2019
<b>High Margins</b>	Low one-time, upfront device cost followed by high-margin electronic refill model
<b>Strong IP Portfolio</b>	Key patent coverage extends through 2033

# APPENDIX

# Indication and Important Safety Information

gammaCore™ (non-invasive vagus nerve stimulator) is intended to provide non-invasive vagus nerve stimulation (nVNS) on the side of the neck. gammaCore is indicated for:

- Adjunctive use for the preventive treatment of cluster headache in adult patients.
- The acute treatment of pain associated with episodic cluster headache in adult patients.
- The acute treatment of pain associated with migraine headache in adult patients.

Important Safety Information:

- The effectiveness of gammaCore has not been established in the acute treatment of chronic cluster headache.
- gammaCore has not been shown to be effective for the preventive treatment of migraine headache.
- Safety and efficacy of gammaCore have not been evaluated in the following patients:
  - Patients with an active implantable medical device, such as a pacemaker, hearing aid implant, or any implanted electronic device
  - Patients diagnosed with narrowing of the arteries (carotid atherosclerosis)
  - Patients who have had surgery to cut the vagus nerve in the neck (cervical vagotomy)
  - Pediatric patients
  - Pregnant women
  - Patients with clinically significant hypertension, hypotension, bradycardia, or tachycardia
- Patients should not use gammaCore if they:
  - Have a metallic device such as a stent, bone plate or bone screw implanted at or near their neck.
  - Are using another device at the same time (e.g., TENS Unit, muscle stimulator) or any portable electronic device (e.g., mobile phone)

**NOTE: This list is not all inclusive. Please refer to the gammaCore Instructions for Use for all of the important warnings and precautions before using or prescribing this product.**