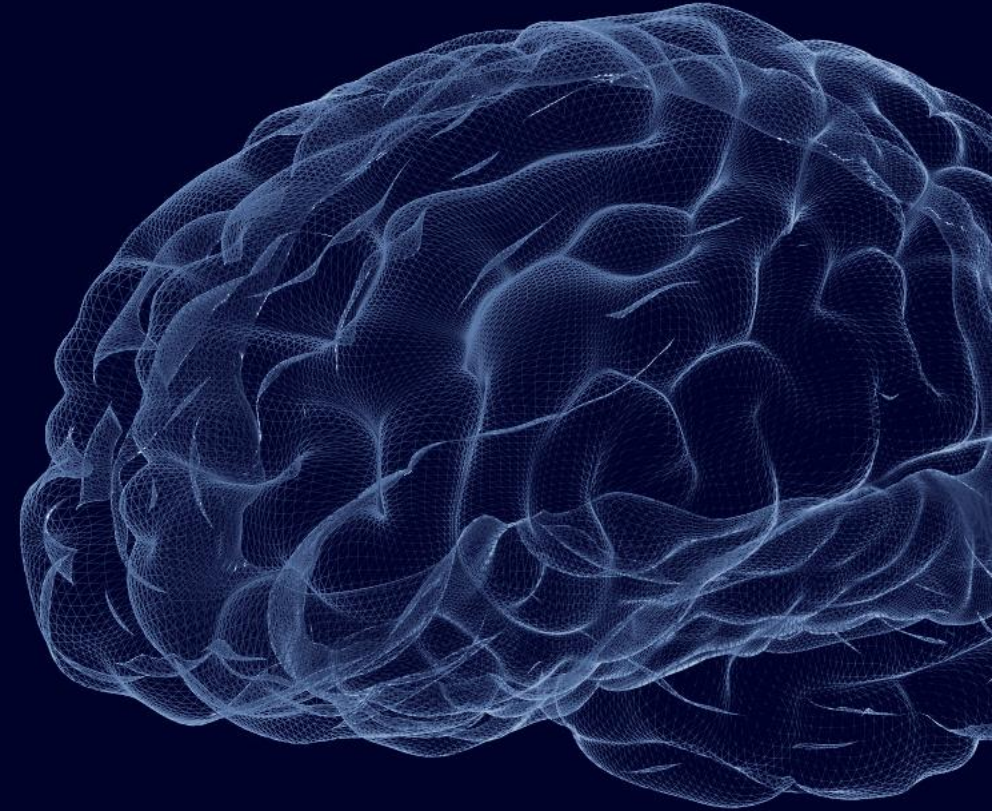


# NeuroOne

NeuroOne<sup>®</sup> Medical Technologies Corporation



NASDAQ: NMTC

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May 2023

# Forward-Looking Statements

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This presentation contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Except for statements of historical fact, any information contained in this presentation may be a forward-looking statement that reflects NeuroOne's current views about future events. In some cases, you can identify forward-looking statements by the words "may," "might," "will," "could," "would," "should," "expect," "intend," "plan," "upcoming," "target," "objective," "anticipate," "believe," "estimate," "predict," "project," "potential," "target," "seek," "contemplate," "continue" and "ongoing," or the negative of these terms, or other comparable terminology. Forward-looking statements may include statements regarding the development of the Company's ablation electrode technology program, applications for, or receipt of, regulatory clearance, the timing and extent of product launch and commercialization of our technology, expected milestone payments, clinical and pre-clinical testing, what the future may hold for electrical stimulation and NeuroOne's potential role, business strategy, market size, potential growth opportunities, future operations, future efficiencies, and other financial and operating information. Our actual future results may be materially different from what we expect due to known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these forward-looking statements, including risks that the partnership with Zimmer Biomet may not facilitate the commercialization or market acceptance of our technology; risks that our sEEG electrodes may not be ready for commercialization in a timely manner or at all, whether due to supply chain disruptions and the impact of COVID-19, or otherwise; risks that our technology will not perform as expected based on results of our pre-clinical and clinical trials; risks related to uncertainties associated with the Company's capital requirements to achieve its business objectives and ability to raise additional funds; the risk that the COVID-19 pandemic will continue to adversely impact our business; the risk that we may not be able to secure or retain coverage or adequate reimbursement for our technology; uncertainties inherent in the development process of our technology; risks related to changes in regulatory requirements or decisions of regulatory authorities; that we may not have accurately estimated the size and growth potential of the markets for our technology; risks related to clinical trial patient enrollment and the results of clinical trials; that we may be unable to protect our intellectual property rights; and other risks, uncertainties and assumptions, including those described under the heading "Risk Factors" in our filings with the Securities and Exchange Commission. These forward-looking statements speak only as of the date of this presentation and NeuroOne undertakes no obligation to revise or update any forward-looking statements for any reason, even if new information becomes available in the future.

This presentation also contains estimates and other statistical data made by independent parties and by us relating to market share and other data about our industry. This data involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates.

The trademarks included herein are the property of the owners thereof and are used for reference purposes only. Such use should not be construed as an endorsement of such products.

Caution: Federal law restricts this device to sale by or on the order of a physician

# Investment Highlights

**Medical technology developer of best-in-class electrodes designed to diagnose and treat debilitating neurological conditions; Multi-Billion market opportunity for combination devices<sup>1</sup>**

**Marketing and distribution partnership with Zimmer Biomet for diagnostic applications; Anticipated launch of EVO<sup>®</sup> Cortical/EVO<sup>®</sup> sEEG electrodes in late Q1 2023<sup>2</sup> (\$100M+ Market<sup>3</sup>)**

**Planned U.S. regulatory submission (510k) of OneRF<sup>®</sup> Ablation system in Q2 2023; for use with EVO sEEG<sup>®</sup> electrodes to treat neurologic conditions**

**Strategy to access the ablation market through additional partnerships leveraging the resources of commercial med tech companies; Zimmer has rights of first negotiation**

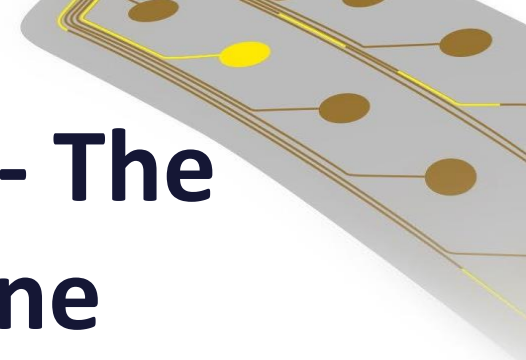
**Next-generation electrodes in development for spinal cord & deep brain stimulation to treat chronic conditions such as Parkinson's disease, epilepsy, tremors, chronic pain**

**Cash runway to achieve meaningful inflection points**

1) Market opportunity derived from combination of diagnostic and therapeutic device TAMs (Total Addressable Markets)

2) Bower R, et al. December 2017. Development of Polyimide electrodes for high-resolution intracranial EEG recordings. (Abst. 1.060) American Epilepsy Society, Washington, D.C.

3) NeuroOne Estimate based on various research reports for US cortical and sEEG diagnostic market only



# Neurological Disorders - The Next Frontier In Medicine

“Neuroscience is the next great frontier in medicine”

“I think we’re on the cusp of some major breakthroughs in this space”

*Casper Hoogenraad, Genentech (VP, Neuroscience) June 2021*

- **Growing epidemic of neurological disorders: epilepsy, Parkinson’s Disease, chronic back pain, depression, essential tremors etc.**
- **Lack of innovation in electrode technology has slowed insights and progress toward better treatment alternatives**
- **NeuroOne has developed a breakthrough thin-film electrode**

## Significant Need: Addressing Current Treatment Challenges:

Electrodes are used to:



- Detect, record and monitor neurological activity
- Stimulate or ablate tissue to regulate brain activity

One RF Ablation system may offer:

- Detection, recording, and treatment in one procedure
  - ↑ patient satisfaction
  - Lower patient risk
  - Lower cost
  - Improved accuracy

# Electrode Technology Value Proposition

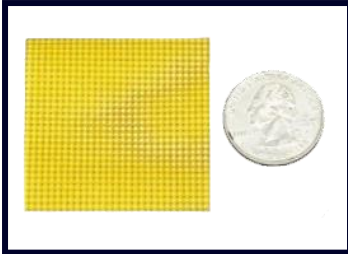
## Highly Disruptive Thin-Film Technology with Superior Competitive Advantages

 <b>Thin-Film &amp; Flexibility</b>	<ul style="list-style-type: none"><li>▪ Highly flexible design provides new options for surgical placement and potentially smaller borings/incisions</li><li>▪ Lower inflammation compared to bulkier electrodes<sup>2</sup></li></ul>
 <b>Combination Device</b>	<ul style="list-style-type: none"><li>▪ Enables pairing of diagnostic and therapeutic into combination product</li><li>▪ Potential to be used in an MRI machine - current electrodes can't be used in MRI</li><li>▪ <b><u>Potential to eliminate an entire surgical procedure and improve outcomes</u></b></li></ul>
 <b>Precision</b>	<ul style="list-style-type: none"><li>▪ Ultra High-definition technology increases signal clarity via lower impedance<sup>1</sup> (noise)</li><li>▪ May enable ablation or stimulation of the targeted tissue with better precision</li><li>▪ May have ability to detect micro-seizures<sup>2</sup> and treat prior to seizure progression</li></ul>
 <b>Cost &amp; Manufacturing</b>	<ul style="list-style-type: none"><li>▪ Cost competitive to current electrode technology</li><li>▪ Fast fulfillment – automated / scalable process</li><li>▪ High reliability – no soldering / consistent manufacturing process</li></ul>

1) Bower R, et al. December 2017. Multi-Resolution intracranial EEG rodent recording system.(Abst. 2.062) 2017. American Epilepsy Society

2) Worrell G A et al. COMMERCIAL SCALE PRODUCTION OF THIN-FILM ELECTRODE ARRAYS FOR CLINICAL INTRACRANIAL EEG AES abstracts (Abst. 1.154), 2019

# Evo<sup>®</sup> Cortical Electrode



## Greater Precision

The single substrate allows for lower impedance to improve signal quality. <sup>1</sup>  
Contact size and shape of electrodes may be customizable per neurosurgeon's request in the future.



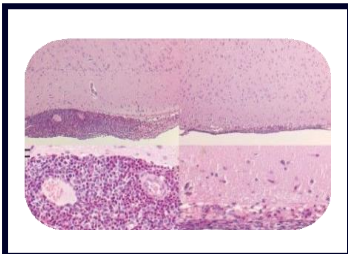
## Thin Film Design

The thin film, flexible design provides new options for surgical placement.  
Single thin tail has less bulk while tunneling through the scalp and less incisions for possible infections.



## Disposable Cables

Disposable cables eliminate the need to sterilize cables and saves the surgical staff time, allowing them to focus on other important tasks.  
Disposable cables save the hospital resources by not having staff manage the sterilization of electrode cables.



## Clinical Evidence

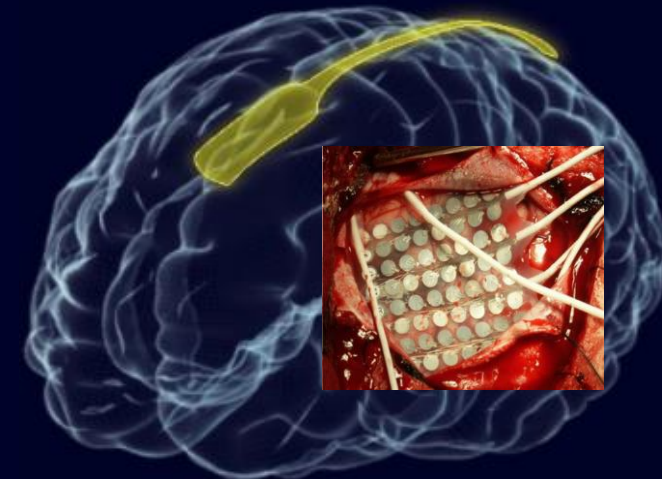
Study conducted by the Mayo Clinic found our electrodes created less tissue inflammation on the brain after being implanted for 7 days. <sup>2</sup>

## Applications

- Epilepsy surgery
- Intraoperative mapping

## Competitors

- Ad-Tech
- Integra
- PMT
- Cortec



1) Worrell G A et al. COMMERCIAL SCALE PRODUCTION OF THIN-FILM ELECTRODE ARRAYS FOR CLINICAL INTRACRANIAL EEG AES abstracts (Abst. 1.154), 2019

2) Bower R, et al. December 2017. Development of Polyimide electrodes for high-resolution intracranial EEG recordings. (Abst. 1.060) American Epilepsy Society, Washington, D.C

3) In November 2019, we received 510(k) clearance for our Evo Cortical Electrode technology for temporary (less than 30 days) recording, monitoring, and stimulation on the surface of the brain

# Thin-Film Depth Electrode

Can be used in Combination with ROSA ONE®

## NeuroOne Potential Advantages:

- Increase signal clarity / reduced noise.
- Better tactile feedback during insertion into brain tissue
- Faster order fulfillment due to manufacturing process.

## Product Development/Commercial Launch:

- FDA 510K for 24 hr. use; first case performed July 2022
- Re-submitted 510(k) for < 30 day use August 2022
- FDA 510(k) for < 30 day use – October 2022
- Commercial Launch –Early '23<sup>2</sup>

All products are Rx only



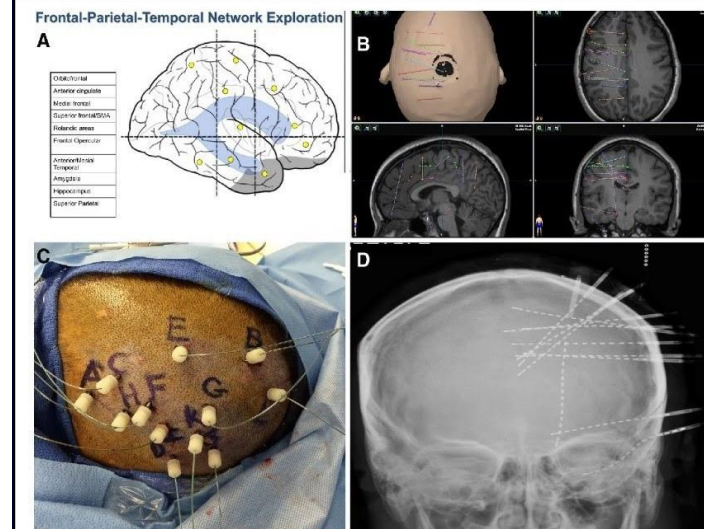
Market > \$100M<sup>1</sup>

## Applications

- Epilepsy surgery
- Awake Brain Mapping Procedures

## Competitors

- Ad-Tech
- Integra
- PMT
- DIXI



# Zimmer Development Agreement

- Zimmer is a worldwide leader in robotic technology used in minimally invasive neurosurgeries
- Evo<sup>®</sup> electrode product line complementary to Zimmer's ROSA ONE<sup>®</sup> Brain platform
- Agreement signed in July 2020, \$2 million upfront payment with additional milestones
- Accelerated \$3.5M milestone payment made in August 2022; Zimmer received 350,000 warrants with an exercise price of \$3.00/share
- Zimmer to exclusively commercialize and distribute NeuroOne's Evo<sup>®</sup> electrode diagnostic technology
- Allows NeuroOne to focus on development and pursue additional applications for technology

Evo<sup>®</sup> sEEG electrodes represent incremental revenue per procedure not including other accessories required for the procedure



Development and Distribution Agreement with Zimmer Biomet, one of the world's most highly respected medical device manufacturers



# Mayo Clinic Partnership

- Mayo Clinic began testing technology in pre-clinical models and clinical research in 2015
- Current investor
- Mayo Clinic leading neurologist, Dr. Worrell, chairs the NeuroOne Scientific Advisory Board
- First commercial human use of Evo® Cortical Electrodes performed at Mayo Clinic in November 2020
- Mayo Clinic partnership with NeuroOne began in 2017

## Mayo Clinic Board Representation



### Greg Worrell MD, PhD, Chairman of the Scientific Advisory Board

World renowned neurologist at Mayo Clinic. Recognized by the American Epilepsy Society (AES), the American Academy of Neurology (AAN), the American Neurological Association (ANA), and the Citizens United in Research for Epilepsy (CURE) Foundation for his contributions to the field of epilepsy research. Dr. Worrell is a frequent keynote speaker at neurology conferences and has published 90 papers.



### Jamie Van Gompel, MD

Neurosurgeon practicing at Mayo Clinic, specializing in epilepsy surgery utilizing minimally invasive techniques. Since 2008, Dr. Van Gompel has authored or co-authored 87 papers on clinical outcome projects centered on neurological conditions. Dr. Van Gompel works collaboratively with colleagues from Mayo Clinic's Epilepsy and Neurophysiology lab, engaging in clinical work relative to brain stimulation as a viable restorative therapy for epilepsy over current treatment methodologies.



Mayo Clinic serves as a critical partner to NeuroOne and as a top shareholder of the Company

# Platform Technology:

## OneRF<sup>®</sup> Diagnostic + Ablation Depth Electrode

### Applications:

- Removes tumorous brain tissue
- Creates lesions in the brain that cause seizures

### Competitors:

- Medtronic
- Monteris Medical

### Advantages vs Ablative Lasers (Current Std. of Care)

- One procedure for diagnostic and therapeutic expected to save time, money and to improve patient outcomes.
- OneRF Ablation System leverages current NeuroOne sEEG technology
- **Targeting early Q2 2023 FDA 510(k) submission**
- Uses well established RF energy to ablate tissue.
- Overcomes inherent laser drawbacks such as need for MRI facility



NeuroOne sEEG Electrode




RF Generator  
w/ Temperature Sensing


## Ablation Advisory Board

 Dr. Daniel Couture  
Wake Forest Baptist Health

 Dr. Guy McKhann  
New York Presbyterian Hospital  
Columbia University

 Dr. Gerald Grant  
Duke University Medical Center

 Dr. Jamie Van Gompel  
Mayo Clinic

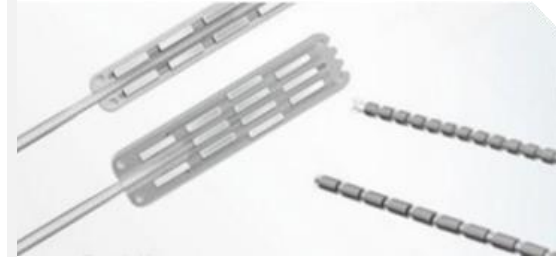
 Dr. Bob Gross  
Emory University

# Spinal Cord Stimulation System

## Potential NeuroOne Advantages:

- Ability to place paddle electrodes percutaneously
- Lower power requirements = battery savings
- Conformable design provides enhanced tissue coverage.
- **“Scalability”** of electrodes offer greater precision of targeted stimulation area
- Successfully completed initial testing for 5 year use for recording and stimulation
- Advisory Board of leading anesthesiologists and neurosurgeons

WW Market > \$3B<sup>1</sup>



### Competitive solutions

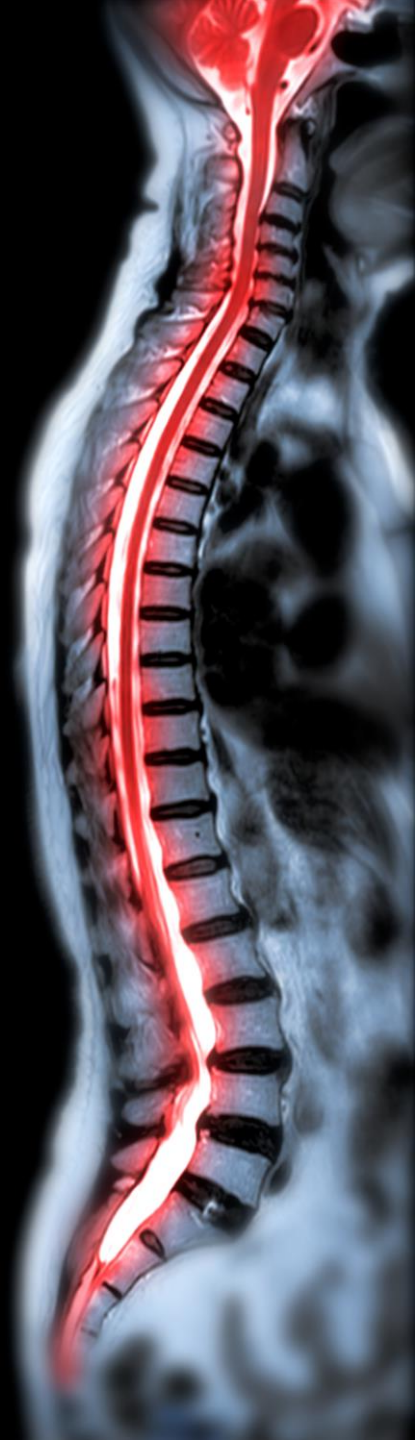
Paddle and cylinder electrodes are placed via two different procedures.

Major vendors in this market include: Medtronic, Boston Scientific, Abbott.



### NeuroOne's solution

To percutaneously place a paddle like a cylinder electrode to provide greater stimulation coverage with reduced battery usage



# Deep Brain Stimulation System

## NeuroOne Advantages:

- Utilizes current electrode design
- Our high-definition electrodes have been shown to detect micro seizures<sup>1</sup> which may improve responsive stimulation algorithms
- Additional technology applications may be suitable for drug delivery
- Targeted stimulation for movement, psychiatric and cognitive disorders

1. Bower R, et al. December 2017. Development of Polyimide electrodes for high-resolution intracranial EEG recordings. (Abst. 1.060) American Epilepsy Society, Washington, D.C.  
 2. Market Insights, Neurostimulation Devices. Published September 11, 2020, by Sophie Quraishi

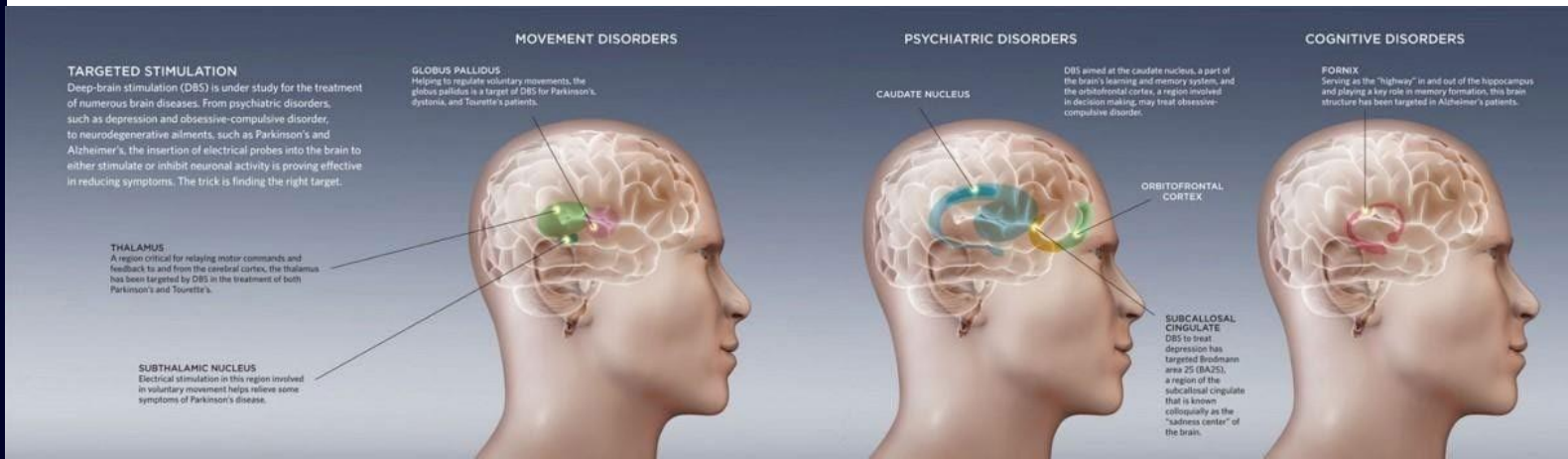
Currently a \$500M WW market  
with potential of \$6B<sup>2</sup>

## Applications

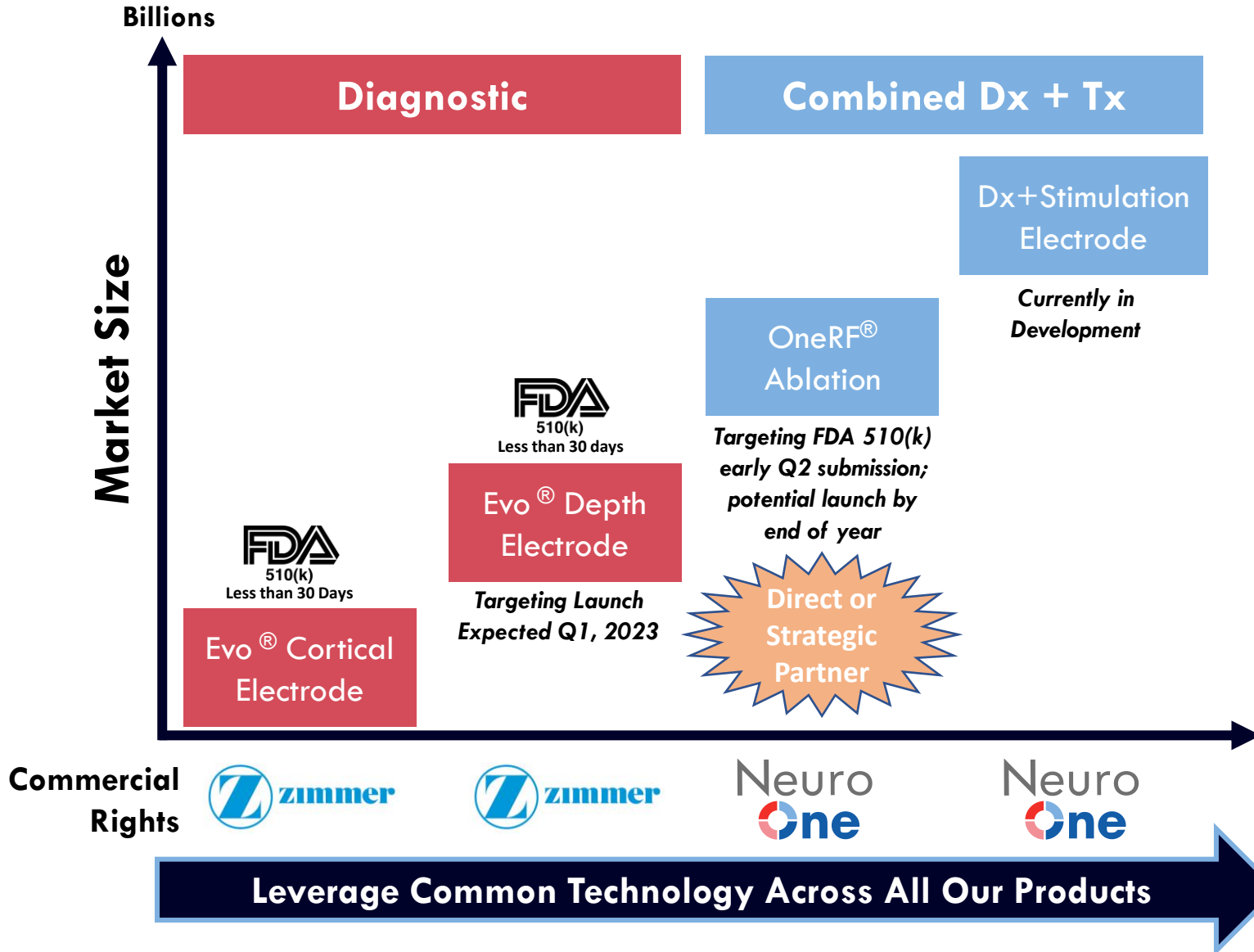
- Parkinson's Disease
- Epilepsy
- Essential Tremors

## Competitors

- NeuroPace
- Medtronic
- Abbott
- Boston Scientific



# Product Development Roadmap



## Market Opportunity

**Diagnostic<sup>1</sup>**  
 >\$100 Million Market

**Combination Dx + Tx**  
 Multi-Billion Market<sup>2</sup>

*Ablation*  
 Spinal cord stimulation  
 Deep Brain Stimulation

1) NeuroOne Estimate based on various research reports for US cortical and SEEG diagnostic market only  
 2) Market opportunity derived from combination of diagnostic and therapeutic device TAMs (Total Addressable Markets)

# Management Team



**Dave Rosa**  
President and Chief Executive Officer

An entrepreneur with three decades of experience in the medical device industry spanning a variety of technologies and products. In addition to CEO roles with early-stage medical device companies, Mr. Rosa's background also includes senior roles with C.R. Bard Inc., Boston Scientific Inc., and St. Jude Medical, where his responsibilities included marketing, product development and business development. He has been named as an inventor on multiple medical device patents, has served on seven corporate boards, and has raised \$200M in the capital markets. Mr. Rosa holds an MBA from Duquesne University, and a BS in Commerce and Engineering from Drexel University.



**Ron McClurg**  
Chief Financial Officer

Mr. McClurg has over 30 years of financial leadership experience with private and public companies. Prior to joining NeuroOne, Mr. McClurg was Chief Financial Officer of Incisive Surgical, Inc., a privately-held medical device manufacturer, and Chief Financial Officer and Treasurer of Wavcrest Corporation, a privately-held manufacturer of electronic test instruments. Mr. McClurg also served as Chief Financial Officer for several publicly-held companies, including Video Sentry Corporation, Insignia Systems, Inc., and Orthomet, Inc. He began his career in public accounting with Ernst & Young, where he earned his CPA certificate. He holds a Bachelor of Business Administration degree in Accounting from the University of Wisconsin - Eau Claire.



**Steve Mertens**  
Chief Technology Officer

Prior to joining NeuroOne, Mr. Mertens was Sr. Vice President of R&D and Operations at NuVaira, a privately held lung denervation company developing minimally invasive products for obstructive lung diseases. Before that, he was a Senior Vice President of Research and Development for Boston Scientific, where he guided a wide range of technologies through product development for the cardiology, electrophysiology, and peripheral vascular markets. Mr. Mertens holds a Bachelor of Science degree in Chemical Engineering from the University of Minnesota and a master's degree in Business Administration from the University of St. Thomas.



**Chad Wilhelmy**  
Vice President of Quality Control and Regulatory Affairs

Chad joined NeuroOne with 20 years of medical device experience developing, implementing, and leading quality management systems. Prior to joining NeuroOne, he held top leadership roles at HLT Medical as the Vice President of Quality and at Sunshine Heart as the Senior Director of Quality. He has driven quality strategies from early-stage development to commercial distribution with both the FDA and Notified Body. Chad earned a Bachelor of Science degree from the University of Wisconsin - Stout in Engineering Technology with an emphasis in Quality.



**Mark Christianson**  
Co-Founder, Business Development Director, Medical Sales Liaison

In excess of 15 years of executive sales, sales management, marketing, and project management experience with development stage companies. Prior to NeuroOne, Mr. Christianson held the positions of North American Sales Manager for Cortec Corporation, a manufacturer of specialty chemical products, and Regional Sales Manager for PMT Corporation, a leading manufacturer of products for neurosurgery, orthopedics and plastic surgery. He holds an accounting degree from Augsburg College.



**Hijaz Haris**  
Vice-President of Marketing

Mr. Haris has more than 20 years of experience with Medtronic, the world's largest Medical Device company. Most recently he led Global Marketing for Medtronic's Brain Modulation business, where he helped refresh the Deep Brain Stimulation product pipeline and led the business through a period of new competitive entries, new product launches, brand refresh, and various distribution partnerships. Prior to that Hijaz held various roles of increasing responsibility across multiple business segments (Cardiac Rhythm Management, Neuroscience, Neuromodulation) and business functions (Product and Strategic Marketing, Corporate Sales, Sales Strategy, and Corporate Finance).



**Camilo Diaz Botia**  
Director of Electrode Development

Dr. Camilo Diaz-Botia is a highly experienced neural engineer whose work has focused on the development of technologies for bidirectional communication with the nervous system. Most recently, Dr. Diaz-Botia worked for Neuralink where he led and mentored the process engineering team to deliver projects with unique microfabrication processes. Under his direction, the team built and designed novel processes for integration of thin film neural probes with brain machine interface systems. Dr. Diaz-Botia earned a B.S. in Electrical Engineering from Universidad Nacional de Colombia and a Ph.D. in Bioengineering from the joint program at the University of California Berkeley and the University of California San Francisco.



**Anthony Millar**  
VP Operations & Supply Chain | Planning, Procurement, Manufacturing, Distribution & Logistics

Anthony Millar comes to NeuroOne with over 20 years of experience within the Medical Device, Drug/Device, and Biotech industries. His experience includes management positions in the areas of manufacturing, finance, supply chain, engineering, new product development, chemical sterilization, and aseptic processing. Prior to joining NeuroOne, he held senior leadership roles with Integer, Minnetronix Medical, and Medtronic. Most recently he supported early-stage medical device companies through consulting engagements. A certified six sigma blackbelt, Mr. Millar is also a former Officer in the United States Marine Corps. He earned a B.A. in Political Science from the University of Illinois and a M.S. in Business Administration from Boston University.

# Scientific Advisory Board



**Greg Worrell**

MD PhD, Chairman of the Scientific Advisory Board

World renowned neurologist at Mayo Clinic. Recognized by the American Epilepsy Society (AES), the American Academy of Neurology (AAN), the American Neurological Association (ANA), and the Citizens United in Research for Epilepsy (CURE) Foundation for his contributions to the field of epilepsy research. Dr. Worrell is a frequent keynote speaker at neurology conferences and has published 90 papers.



**Jamie Van Gompel**

MD

Neurosurgeon practicing at Mayo Clinic, specializing in epilepsy surgery utilizing minimally invasive techniques. Since 2008, Dr. Van Gompel has authored or co-authored 87 papers on clinical outcome projects centered on neurological conditions. Dr. Van Gompel works collaboratively with colleagues from Mayo Clinic's Epilepsy and Neurophysiology lab, engaging in clinical work relative to brain stimulation as a viable restorative therapy for epilepsy over current treatment methodologies.



**Greg Esper**

MD, MBA

Associate Professor, Vice-President of Clinical Affairs, and Director of New Care Models in the Neurology Department at Emory University. Vice Chair of the Medical Economics and Management Committee for the American Academy of Neurology (AAN). Dr. Esper was Chair of the Navigating Health Reform Task Force for the AAN in 2012.



**Bob Gross**

MD, PhD

MBNA Bowman Chair & Professor Department of Neurosurgery, Emory University School of Medicine. Faculty in Biomedical Engineering at Georgia Institute of Technology, Biological and Biomedical Sciences, and Center for Neurodegenerative Disease at Emory University. He previously served as President of the American Society for Stereotactic and Functional Neurosurgery and Section Editor of Neurosurgery (journal). He has published more than 270 articles, having been cited 15,660 times, and has co-edited 2 textbooks.



**Justin Williams**

PhD

Department Chair and Vilas Distinguished Achievement Professor at University of Wisconsin. Dr. Williams is credited with multiple publications, patents, and research in the field of thin-film electrodes for neurological recording, ablation, and stimulation.



**Kip Ludwig**

PhD

Dr. Ludwig is the Co-Director of the Wisconsin Institute for Translational Neuroengineering (WITNe) and leads the Ludwig Laboratory at the University of Wisconsin within the WITNe structure. The primary focus of his lab is developing next-generation neuromodulation therapies that use minimally invasive strategies to hack the nervous system to treat circuit dysfunction and deliver biomolecules to target areas with unprecedented precision. Prior to Wisconsin Dr. Ludwig served as the Program Director for Neural Engineering at the National Institutes of Health.

# Financial Information

NASDAQ: NMTC	Financial Data
Price: <sup>1</sup>	\$1.61
90-Day Price Range: <sup>1</sup>	\$1.17 - \$2.18
Daily Volume – Last 30 Day Average: <sup>1</sup>	170,787
Market Capitalization: <sup>1</sup>	\$27.2 Million
Shares Outstanding: <sup>1</sup>	16.9 Million
Shares in Float: <sup>1</sup>	~ 13.7 Million
Warrants: <sup>1</sup>	6.8 Million (WAEP = \$6.00)
Stock Options: <sup>1</sup>	1.4 Million (WAEP = \$5.02)

<sup>1</sup> As of March 31, 2023



# Key Takeaways

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## Positioned to Create Shareholder Value

- Substantial market opportunity
- Disruptive, patented technologies
- Two FDA cleared electrodes with established reimbursement; others close to FDA submission or completion of development
- Platform technology potential for multiple applications:
- Mayo and Cleveland Clinic have conducted preclinical studies, which have produced promising results utilizing our devices in humans and/or animals
- Experienced Management Team, Advisory Boards, and Board of Directors

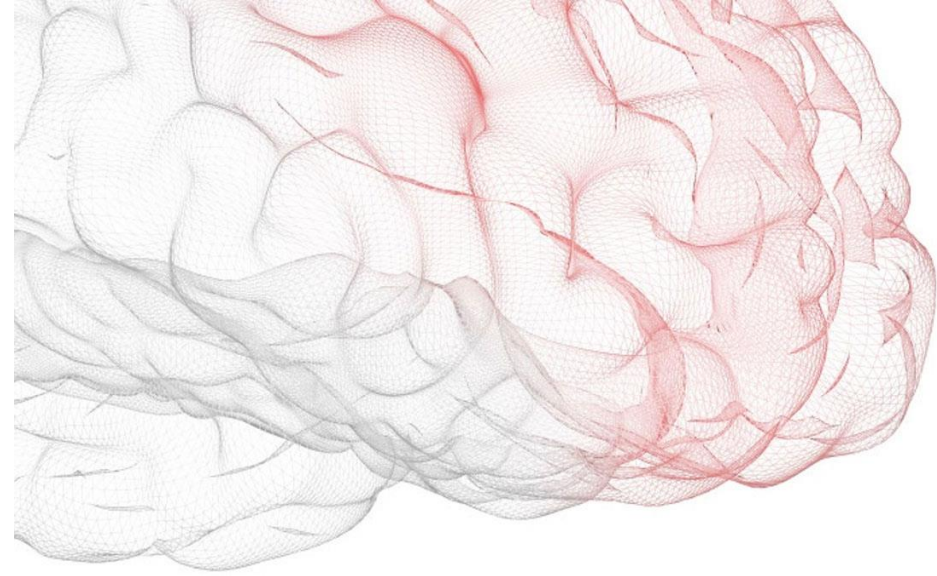
## Anticipated Catalysts & Milestones

- Zimmer launch of EVO<sup>®</sup> sEEG diagnostic electrodes in Q1 2023; first two of multiple orders recently shipped
- FDA submission of 510k for OneRF<sup>®</sup> Ablation System in Q2 2023
- Journal publication on OneRF<sup>®</sup> Ablation System preclinical study
- Advancement of OneRF<sup>®</sup> commercial strategy
- Potential for additional partnerships to leverage NeuroOne's core technology
- Pipeline progress on spinal cord/brain stimulation electrode
- Exploration of new indications for platform technology (ie Mental health disorders such as depression, OCD, substance abuse)

## Key Partnerships:



ZIMMER BIOMET



# Thank You

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Dave Rosa

Chief Executive Officer

NeuroOne