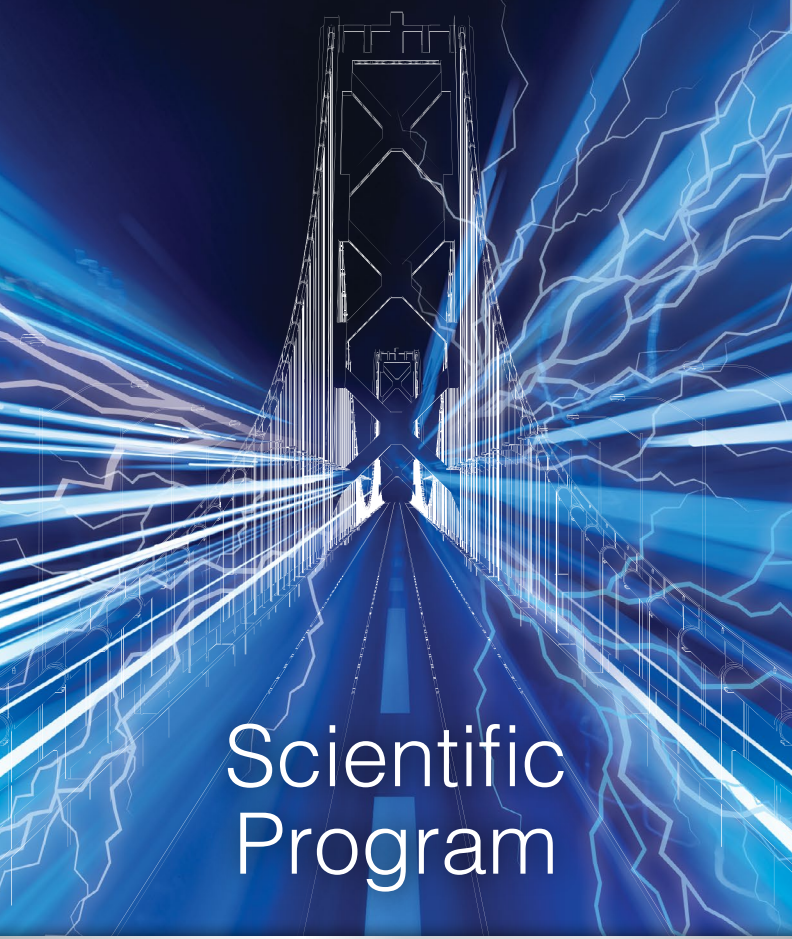
Bridges of Knowledge

assfn

2026 Biennial Meeting



Scientific Program

May 30-June 2, 2026 • Cleveland, OH

CNS

Jointly provided by the Congress of Neurological Surgeons and the American Society for Stereotactic and Functional Neurosurgery

Boston Scientific
Advancing science for life™

Join us for the Boston Scientific Lunch Symposium

Novel Stimulation vs. aDBS to Improve Gait in Parkinson's Disease (PD)

Presented By

Doris Wang, MD, PhD
Neurosurgeon
University of California San Francisco

Mahsa Malekmohammadi, PhD
Manager, Brain Research
Boston Scientific

Sunday, May 31, 12:00-12:50PM
Superior Ballroom B, 5TH Floor

While at ASSFN, visit us at booth 100

Stay up to date with Boston Scientific at ASSFN by scanning the QR code

View Boston Scientific Deep Brain System Indications, Safety, and Warnings at bostonscientific.com/dbs-indications

Contents

CNS

Jointly provided by the Congress of Neurological Surgeons and the American Society for Stereotactic and Functional Neurosurgery.

assfn

The American Society for Stereotactic and Functional Neurosurgery (ASSFN) serves as an affiliate joint section of the CNS and AANS, and remains deeply involved in a variety of educational, organizational, and advocacy activities on behalf of North American functional neurosurgeons.

Welcome

Welcome to the 2026 American Society for Stereotactic and Functional Neurosurgery (ASSFN) Biennial Meeting in Cleveland, Ohio. Drawing inspiration from Cleveland's rich legacy as a city of bridges, we have built this year's meeting around the theme "Bridges of Knowledge." The most transformative advances in our field often arise at the intersection of disciplines, and this meeting is designed to foster exactly those connections.

The meeting offers dynamic opportunities for collaboration across neuroscience, surgery and engineering. We are delighted to host a record number of abstract submissions spanning diverse fields—creating a vibrant forum where established leaders and trainees alike can exchange ideas, spark collaborations, and lay the groundwork for future innovation.

Our plenary sessions will highlight the most cutting edge science, complemented by focused breakout sessions that allow you to personalize your experience. Topics will include movement disorders, epilepsy, psychiatric disease, neurorehabilitation, and emerging applications that are shaping the future of our specialty.

In addition, our keynote session will explore leadership lessons drawn from both sports and medicine, offering fresh perspectives on teamwork, performance, community and resilience. Alongside the scientific program, the meeting provides meaningful time to reconnect with colleagues, strengthen professional networks, and build new friendships.

We're excited to welcome you to Cleveland for an ASSFN meeting dedicated to advancing ideas that will shape the future of our specialty.

Sincerely,

André Machado
Meeting Chair, ASSFN

Rushna Ali
Scientific Program Chair, ASSFN

Julie G. Pilitsis
President, ASSFN

NEUROPACE

ASSFN BREAKFAST SYMPOSIUM

Responsive Thalamic Neuromodulation for Drug-Resistant Epilepsy

Monday, June 1, 2026
7:00 am - 7:55 am (EDT)

Hilton Cleveland Downtown
Hope Ballroom E

REGISTER HERE

Explore the evolving role of responsive thalamic neuromodulation for drug-resistant epilepsy. Hear the latest on:

- Patient Selection & Thalamic Targeting for Focal Epilepsy
- 18-Month Results from the NAUTILUS Study for drug-resistant IGE
- Feasibility Study of Responsive Stimulation for Lennox-Gastaut Syndrome

FEATURED SPEAKERS

Mark Richardson, MD, PhD

Functional Neurosurgeon, Massachusetts General Hospital

John Rolston, MD, PhD

Functional Neurosurgeon, Brigham and Women's Hospital

Martha Morrell, MD

Chief Medical Officer NeuroPace

Invitation only, HCPs only. Space is limited, non-transferable. Breakfast will be provided. Expenses will be reported in accordance with the Sunshine Act.

Rx Only. The RNS® System is an adjunctive therapy for adults with refractory, partial onset seizures with no more than 2 epileptogenic foci. See important safety information at http://www.neuropace.com/safety

For the NAUTILUS Study & LGS Study: CAUTION Investigational device. Limited by United States law to investigational use for Idiopathic Generalized Epilepsy and LGS.

ASSFN Meeting Directors

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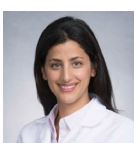
Tucson, Arizona

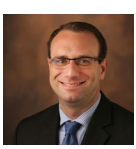
Ellen L. Air
Vice President
Henry Ford Health
Detroit, Michigan

André Machado
Meeting Chair
Cleveland Clinic
Cleveland, Ohio

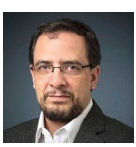
Rushna Ali
Scientific Program Chair
Mayo Clinic
Rochester, Minnesota



Sharona Ben-Haim
Scientific Program Committee
University of California, San Diego
San Diego, California



Dario J. Englot
Scientific Program Committee
Vanderbilt University
Nashville, Tennessee



Clement Hamani
Scientific Program Committee
Sunnybrook Research Institute,
University of Toronto
Toronto, Ontario, Canada

ASSFN Meeting Directors

Nuri Ince
Scientific Program Committee
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Rochester, Minnesota

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Cleveland, Ohio

Jennifer Sweet
Scientific Program Committee
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Cleveland Medical Center;
Case Western Reserve University
Cleveland, Ohio

Doris Wang
Scientific Program Committee
University of California San Francisco
San Francisco, California

Celebrating the Life and Career of Sanjeet S. Grewal (1987-2026)

The field of neurosurgery lost one of its brightest rising leaders with the unexpected passing of Sanjeet S. Grewal on February 7, 2026. At just 38 years old, he had already built a career defined by technical mastery, academic productivity, mentorship and an unwavering devotion to patients.

Born in Ludhiana, India, and raised in Queens, New York, and later Fort Lauderdale, Florida, Grewal's life was marked early by energy, curiosity and determination that would later characterize his surgical career. His academic path reflected precocity and discipline. He entered a highly competitive combined undergraduate and medical pathway through Xavier University and the University of Cincinnati, earning his Bachelor of Science in Biology before completing his medical degree. He then matched at his first-choice program, the Mayo Clinic in Jacksonville, Florida, where he became one of the earliest residents in a newly established neurosurgery residency. As part of that inaugural cohort, he helped shape the culture of the program. He subsequently pursued fellowship training in surgical epilepsy at Mayo Clinic in Rochester, Minnesota, followed by stereotactic and functional neurosurgery training at Mayo Clinic in Florida.

Grewal joined the faculty at Mayo Clinic in Florida during the height of the COVID pandemic, immediately assuming substantial clinical and academic responsibilities. Board certified in 2023, he rose rapidly to leadership roles, serving as Director of Epilepsy and Movement Disorders and as Associate Program Director of the neurosurgery residency. Even early in his faculty career, he was widely regarded as being on an accelerated path toward full professorship.

His clinical focus encompassed epilepsy and movement disorders, where he brought meticulous technique and thoughtful judgment to complex surgical cases. His research portfolio was expansive and forward-

looking. As a principal investigator and collaborator on multiple national clinical trials, he advanced deep brain stimulation for stroke recovery, stem cell–based therapies for Parkinson's disease and the application of artificial intelligence to identify seizure patterns and neurophysiologic signatures. He authored more than 100 peer-reviewed publications and contributed extensively to neurosurgical textbooks. In 2025, he began formal graduate study in artificial intelligence in health care, reflecting his conviction that the future of neurosurgery would be shaped by data science and technological integration.

Education was central to his professional identity. As Associate Program Director, he held residents to high standards while offering unwavering support. Trainees describe an attending who was exacting in the operating room yet generous with his time outside it—someone who answered late-night questions, advocated for junior colleagues and insisted that technical excellence must be paired with compassion. He directed advanced courses, lectured nationally and internationally and remained active in organized neurosurgery, including the American Association of Neurological Surgeons, the Congress of Neurological Surgeons, the American Society for Stereotactic and Functional Neurosurgery and the North American Neuromodulation Society. His service included participation in guideline development, advocacy efforts and national scientific program committees.

Grewal was deeply devoted to his wife, Angela, whom he met as a teenager at Xavier University. Together they created a home filled with energy and warmth, raising three young children – Neal, Aria and Ryan – who were the center of his world.

Neurosurgery advances through the work of dedicated individuals, but it is sustained by character. Sanjeet S. Grewal embodied both. His legacy endures in the patients he treated, the trainees he shaped, the research he propelled forward and the family who carries his light. His passing leaves a profound void in functional neurosurgery, in academic medicine and in the lives of all who called him a colleague or friend.

Dario J. Englot
Vanderbilt University Medical Center

Honored Guest

Aviva Abosch completed her undergraduate degree at Bryn Mawr College, followed by an M.D. and Ph.D. (Neuroscience) at the University of Pittsburgh, neurosurgery residency at the University of California, San Francisco, and fellowship training in epilepsy surgery at the Montreal Neurological Institute, and in stereotactic and functional neurosurgery at the University of Toronto.

Abosch was previously on faculty at Emory University, the University of Minnesota, and the University of Colorado-Anschutz Medical Campus—where she was Vice Chair for Research in Neurosurgery. From 2019 to 2025, she was tenured Professor and Chair of the Neurosurgery Department at the University of Nebraska Medical Center (UNMC), holder of the Nancy A. Keegan and Donald R. Voelte, Jr. Chair in Neurosurgery, Co-Director of the Clinical Neurosciences Service Line, Director of the UNMC/Nebraska Medicine Functional, Epilepsy, and Stereotactic Surgery Program, and Director of the Fellowship Training Program in Functional, Epilepsy, and Stereotactic Surgery at UNMC.

Since 2025, Abosch has been Deputy Director of the Baptist Health Miami Neuroscience Institute (MNI), Director of Epilepsy Surgery and Co-Director of Functional Neurosurgery for Baptist Health MNI. She holds the Esernia Endowed Chair in Surgical Treatment of Epilepsy and Movement Disorders, and is Chief of Neurosurgery at Florida International University (FIU).

Abosch is a Past-President of the American Society of Stereotactic and Functional Neurosurgery (ASSFN) and of Women in Neurosurgery (WINS) and currently serves as Secretary of the American Association of Neurological Surgeons (AANS), Member-At-Large of the American Academy of Neurological Surgery, and as an Examiner for the American Board of Neurological Surgeons (ABNS). She also serves on the Editorial Board of Neurosurgery and was formerly a member of the Editorial Boards of Stereotactic and Functional Neurosurgery and the Journal of Neurosurgery. She speaks nationally and internationally on her areas of clinical and research expertise. Her research in neuromodulation is funded through intramural, industry, and governmental sources, including a UH3 BRAIN Initiative award for the study of sleep in Parkinson's Disease (NINDS).

THANK YOU

2026 ASSFN Biennial Meeting Ambassador

Boston Scientific

Featured Speakers

Paul Dolan

The Dolan family's ownership of the Cleveland Guardians franchise enters its 27th season in 2026, while Paul Dolan begins his 14th campaign as the primary control person after being formally approved by Major League Baseball on Jan. 10, 2013. Paul continues to serve as Chairman and Chief Executive Officer of the Guardians, roles he accepted prior to the 2011 season. He began his time with the franchise as Vice President, General Counsel upon joining the organization in 2000 and later served as the club's President from 2004-2010.

Dolan is involved in various business interests and philanthropic and civic boards throughout the Northeast Ohio community. He is currently Chairman of the Greater Cleveland Partnership and serves as a board member for The Cleveland Clinic, Playhouse Square Foundation, United Way of Greater Cleveland, and Cleveland State University.

Nicholas Schiff

Nicholas Schiff is an internationally recognized neurologist and neuroscientist known for his pioneering work in disorders of consciousness, traumatic brain injury, and recovery after severe brain injury. He is the Jerold B. Katz Professor of Neurology and Neuroscience at Weill Cornell Medicine and a leader in the clinical care of patients with impaired consciousness.

Schiff's research has reshaped understanding of coma and minimally conscious states through the integration of advanced neuroimaging, electrophysiology, and neuromodulation. He has played a central role in refining diagnostic and prognostic frameworks that guide patient care and inform ethical and policy discussions. A key focus of his work includes the use of deep brain stimulation to restore arousal and cognitive function in select patients.

Invited Speakers

Aviva Abosch
Miami Neuroscience Institute
Miami, FL

Ellen Air
Henry Ford Hospital
Detroit, MI

Rushna Ali
Mayo Clinic
Rochester, MN

Wael Asaad
Brown University
Westwood, MA

Josue Avecillas-Chasin
University of Nebraska
Omaha, NE

Ken Baker
Cleveland Clinic
Cleveland, OH

Tyler Ball
Vanderbilt University
Nashville, TN

Ausaf Bari
University of California, Los Angeles
Los Angeles, CA

Sharona Ben-Haim
University of California, San Diego
San Diego, CA

Nicole Bentley
University of Alabama at Birmingham
Birmingham, AL

Sarah Bick
Vanderbilt University
Nashville, TN

Robert Bina
University of Arizona
Phoenix, AZ

William Bingaman
Cleveland Clinic
Cleveland, OH

Larry Bodden
The Permanente Medical Group
Carmichael, CA

Nicholas Boulis
Emory University
Atlanta, GA

David Brandman
University of California, Davis
Sacramento, CA

Kim Burchiel
Oregon Health & Science University
Portland, OR

Leonard Calabrese
Cleveland Clinic
Cleveland, OH

Edward Chang
University of California, San Francisco
San Francisco, CA

Kevin Chen
University of Michigan
Ann Arbor, MI

Ki Sueng Choi
Mount Sinai
New York, NY

G. Rees Cosgrove
Brigham and Women's Hospital
Boston, MA

Steven Cramer
Orange, CA

Daniel Curry
Texas Children's Hospital
Houston, TX

Shabbar Danish
Jersey Shore University
Neptune, NJ

Invited Speakers

David Darrow
University of Minnesota
Minneapolis, MN

Justin Davanzo
Allegheny Health Network
Monroeville, PA

Shadi Dayeh
University of California, San Diego
San Diego, CA

Paul Dolan
Cleveland, OH

Dawn Eliashiv
University of California, Los Angeles
Los Angeles, CA

Dario Englot
Vanderbilt University
Nashville, TN

Kelly Foote
University of Florida
Gainesville, FL

Paul Ford
Cleveland Clinic
Cleveland, OH

Michael Fox
Brigham and Women's Hospital
Boston, MA

Jared Fridley
Brown University
Austin, TX

Derek George
University of Rochester
Rochester, NY

Jason Gerrard
University of Tennessee
Memphis, TN

Nisha Giridharan
Baylor College of Medicine
Houston, TX

Emily Graczyk
Case Western Reserve
Cleveland, OH

Warren Grill
Duke University
Durham, NC

James Guest
University of Miami
Miami, FL

Christoph Guger
g.tec medical engineering
Schiedlberg, Austria

Kunal Gupta
Medical College of Wisconsin
Milwaukee, WI

Mackenzie Hagood
The University of Toledo
Toledo, OH

Clement Hamani
University of Toronto
Toronto, ON

Jaimie Henderson
Stanford University
Stanford, CA

Leigh Hochberg
Massachusetts General Hospital
Boston, MA

Mojgan Hodaie
University of Toronto
Toronto, ON

Kenneth Holroyd
Vanderbilt University
Nashville, TN

George Ibrahim
The Hospital for Sick Children
Toronto, ON

Nuri Ince
Mayo Clinic
Rochester, MN

Invited Speakers

Graham Johnson
Vanderbilt University
Antioch, TN

Lora Kahn
Ochsner Health System
New Orleans, LA

Suneil Kalia
University of Toronto
Toronto, ON

Michael Kaplitt
Weill Cornell Medicine
New York, NY

Patrick Karas
University of Texas
League City, TX

Efstathios Kondylis
Cleveland Clinic
Cleveland, OH

Peter Konrad
West Virginia University
Fairmont, WV

Vibhor Krishna
University of North Carolina
Chapel Hill, NC

Bornali Kundu
University of Missouri
Columbia, MO

Paul Larson
University of Arizona
Tucson, AZ

Adrian Laxton
Wake Forest University
Winston-Salem, NC

Ian Lee
Henry Ford Health System
Detroit, MI

Kent Leyde
Cadence Neuroscience
Seattle, WA

Nir Lipsman
University of Toronto
Toronto, ON

Charles Liu
University of Southern California
Los Angeles, CA

André Machado
Cleveland Clinic
Solon, OH

Cameron McIntyre
Duke University
Durham, NC

Vanessa Milanese
Beneficecia Portuguesa Hospital
Sao Paulo, Brazil

Kai Miller
Mayo Clinic
Rochester, MN

Joseph Neimat
University of Louisville
Louisville, KY

John Ngai
National Institutes of Health
Bethesda, MD

Eric Oermann
NYU Langone Health
New York, NY

Steven Ojemann
University of Colorado
Aurora, CO

Seth Oliveria
The Oregon Clinic
Portland, OR

Chima Oluigbo
Children's National Hospital
Washington, DC

Philip Ostrov
University of Louisville
Louisville, KY

Invited Speakers

Viktoras Palys
University of Arkansas
Little Rock, AR

Fedor Panov
Mount Sinai
New York, NY

Jonathon Parker
Mayo Clinic
Scottsdale, AZ

Nitesh Patel
Jersey Shore University
Fair Haven, NJ

Prag Patil
University of Michigan
Ann Arbor, MI

Danika Paulo
Henry Ford Health
Detroit, MI

Carlos Pena
The Jacobs Institute
Buffalo, NY

Erika Petersen
University of Arkansas
Little Rock, AR

Julie Pilitsis
University of Arizona
Tucson, AZ

Nader Pouratian
UT Southwestern
Dallas, TX

Francesco Pucci
Cleveland Clinic
Cleveland, OH

Shervin Rahimpour
University of Utah
Salt Lake City, UT

Richard Rammo
Cleveland Clinic
Cleveland, OH

Abigail Rao
Norton Neuroscience Institute
Prospect, KY

Vikram Rao
University of California, San Francisco
San Francisco, CA

Jeffrey Raskin
Lurie Children's Hospital
Chicago, IL

Ahmed Raslan
Oregon Health and Science University
Portland, OR

Robert Richardson
Massachusetts General Hospital
Boston, MA

John Rolston
Brigham and Women's Hospital
Boston, MA

Joshua Rosenow
Northwestern University
Chicago, IL

Nathan Rowland
Medical University of South Carolina
Charleston, SC

Yuri Saalmann
University of Wisconsin
Madison, WI

Sepehr Sani
Rush University
Chicago, IL

Can Sarica
University of Toronto
Toronto, ON

Nehaw Sarmey
University of Arizona
Tucson, AZ

Invited Speakers

Katherine Scangos
University of Pennsylvania
Philadelphia, PA

Nicholas Schiff
Weill Cornell
New York, NY

Amardeep Sekhon
University of British Columbia
Vancouver, BC

Demitre Serletis
Cleveland Clinic
Cleveland, OH

Aasef Shaikh
Cleveland Medical Center
Lakewood, OH

Maryam Shanechi
University of Southern California
Los Angeles, CA

Sameer Sheth
Baylor College of Medicine
Houston, TX

Konstantin Slavin
University of Illinois at Chicago
Chicago, IL

Philip Starr
University of California, San Francisco
San Francisco, CA

Michael Staudt
UH Cleveland Medical Center
Cleveland, OH

Charles Stevenson
Cincinnati Children's Hospital
Carmel, IN

Scellig Stone
Boston Children's Hospital
Chestnut Hill, MA

Michael Sughrue
University of Cambridge
Scottsdale, OK

Jennifer Sweet
Case Western Reserve
Hudson, OH

Nitin Tandon
University of Texas
Houston, TX

Brian Theyel
Brown University
Providence, RI

Ashwin Viswanathan
Baylor College of Medicine
Houston, TX

Sayed Wahezi
Albert Einstein
Bronx, NY

Doris Wang
University of California, San Francisco
San Francisco, CA

Douglas Weber
Carnegie Mellon University
Pittsburgh, PA

Alexander Whiting
Allegheny Health Network
Pittsburgh, PA

Jon Willie
The University of Texas at Austin
Austin, TX

Chengyuan Wu
Thomas Jefferson University Hospital
Philadelphia, PA

Vijay Yanamadala
Hartford HealthCare
Hartford, CT

Program Schedule

SATURDAY, MAY 30, 2026

6:30 am-4:00 pm *5th Level Lakeside Foyer*

Registration

8:30 am-12:00 pm *Hope Ballroom D*

Special Course 1

Epilepsy Surgery Fundamentals and Challenges

Course Directors: *Abigail Rao, Demitre Serletis*

Part 1: Clinical Cases

8:30-8:45 am
Anatomy & Surgical Approaches for Epilepsy: Temporal Lobe Epilepsy - Diagnosis/intracranial Monitoring for Temporal Lobe Epilepsy
Nehaw Sarmey

8:45-9:00 am
Anatomy & Surgical Approaches for Epilepsy: Temporal Lobe Epilepsy - LITT vs. sAH vs ATL for Temporal Lobe Epilepsy
Chengyuan Wu

9:00-9:15 am
Anatomy & Surgical Approaches for Epilepsy: Temporal Lobe Epilepsy - Neuromodulation in Temporal Lobe Epilepsy
Lora Kahn

9:15-9:30 am
Anatomy & Surgical Approaches for Epilepsy: Extra-Temporal Lobe Epilepsy - Intracranial Monitoring Techniques (eg SEEG incl. thalamic sEEG, grids)
Fedor Panov

9:30-9:45 am
Anatomy & Surgical Approaches for Epilepsy: Extra-Temporal Lobe Epilepsy - Neuromodulation in Extra-Temporal Lobe Epilepsy
Abigail Rao

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9:45-10:00 am
Anatomy & Surgical Approaches for Epilepsy: Extra-Temporal Lobe Epilepsy - Cingulate, Opercular & Parieto-Occipital Epilepsy: Laser and Resection
Demitre Serletis

10:00-10:15 am
Anatomy & Surgical Approaches for Epilepsy: Disconnective Approaches - Corpus Callosotomy: LITT and Open Approaches
Jeffrey Raskin

10:15-10:30 am
Anatomy & Surgical Approaches for Epilepsy: Disconnective Approaches - Anatomical & Disconnective Hemispherectomy
William Bingaman

10:30-10:45 am
Beverage Break

10:45-10:54 am
Stereotactic Robotic & Other Frameless Technologies for SEEG
Francesco Pucci

10:54-11:03 am
Stereotactic Robotic & Other Frameless Technologies for SEEG
Suneil Kalia

11:03-11:12 am
Stereotactic Robotic & Other Frameless Technologies for SEEG
Adrian Laxton

11:12-11:20 am
Stereotactic Robotic & Other Frameless Technologies for SEEG
Larry Bodden, Scellig Stone

11:20-11:30 am
Non-Resective Approaches: Laser Ablation and Neuromodulation
Viktoras Palys, Alexander Whiting

11:30-11:40 am
Non-Resective Approaches: Laser Ablation and Neuromodulation
Shabbar Danish

11:40-11:50 am
Non-Resective Approaches: Laser Ablation and Neuromodulation
Dawn Eliashiv

11:50 am-12:00 pm
Non-Resective Approaches: Laser Ablation and Neuromodulation
Patrick Karas

Program Schedule

8:30 am-12:00 pm *Superior Ballroom A*

Special Course 2
Movement Disorder Surgery Fundamentals and Challenges

Course Directors: *Sarah Bick, Erika Petersen*

8:30-8:45 am
DBS Target Selection for Movement Disorders: DBS Target Selection for Parkinson's Disease
Shervin Rahimpour

8:45-9:00 am
DBS Target Selection for Movement Disorders: DBS Target Selection for Tremor
Jonathon Parker

9:00-9:15 am
Neuromodulation vs. Lesioning for Movement Disorders: Point-Counterpoint: Pro DBS
Shabbar Danish

9:15-9:30 am
Neuromodulation vs. Lesioning for Movement Disorders: Point-Counterpoint: Pro Lesioning
G. Rees Cosgrove

9:30-9:45 am
Tools for Movement Disorders Surgery Planning: Novel Targets for Movement Disorders Surgery Planning
Nicole Bentley

9:45-10:00 am
Tools for Movement Disorders Surgery Planning: Imaging Tools for Movement Disorders Surgery
Chengyuan Wu

10:00-10:15 am
Awake vs. Asleep DBS: Point Counterpoint: Awake DBS: Fundamentals and Challenges
Kelly Foote

10:15-10:30 am
Awake vs. Asleep DBS: Point Counterpoint: Asleep DBS: Fundamentals and Challenges
Sepehr Sani

10:30-10:45 am
Beverage Break

10:45-11:05 am
DBS Programming: Fundamentals and Challenges
Aasef Shaikh

11:05-11:20 am
Adaptive DBS
Philip Starr

11:20-11:40 am
Hands-on Session with Vendors

11:40-11:50 am
Non-Resective Approaches: Laser Ablation and Neuromodulation

1:00-4:00 pm *Hope Ballroom D*

Special Course 3
Entrepreneurship and Innovation

Course Directors: *Clement Hamani, Danika Paulo*

1:00-1:05 pm
Introduction
Clement Hamani, Danika Paulo

1:05-1:25 pm
Transforming Ideas into Reality: So, You Have an Idea - Who Do You Talk to Next?
Sameer Sheth

1:25-1:45 pm
Transforming Ideas into Reality: Institutional Relations and Contract Negotiations
Nader Pouratian

1:45-2:05 pm
Navigating the Regulatory Process: With a Patent in Hand: To Sell or To Start a Company
Wael Asaad

2:05-2:25 pm
Navigating the Regulatory Process : Innovation Initiatives of the NIH
John Ngai

2:25-2:40 pm
Beverage Break

2:40-3:00 pm
Achieving Success and Avoiding Failure: Defining and Measuring "Success" as an Entrepreneur
Josef Parvizi

3:00-3:25 pm
Achieving Success and Avoiding Failure: Failure to Launch: Common Hindrances to Success and How to Overcome Them
Carlos Pena

3:25-4:00 pm
Roundtable Discussion with Questions and Answers
Wael Asaad, John Ngai, Josef Parvizi, Carlos Pena, Sameer Sheth

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Thank you to the following companies for In-Kind Support: Abbott, Boston Scientific, Clearpoint Neuro, Insightec, Medtronic

1:00-4:00 pm *Superior Ballroom A*

Special Course 4

Medical Students: Mentorship, Education, and Research

Course Directors: *Tyler Ball, Joseph Neimat*

1:00-1:05 pm
Overview
Tyler Ball

1:05-1:25 pm
Identifying a Mentor Early in Medical School
Robert Bina

1:25-1:45 pm
Mentoring in Neurosurgery - the Mentor's Perspective
Joseph Neimat

1:45-1:55 pm
Questions and Answers

1:55-2:10 pm
Engaging Medical Students and Making the Most of the Sub-I
Graham Johnson, Jonathon Parker

2:10-2:30 pm
A Program Director's Perspective on the Application Process
Ellen Air, Sharona Ben-Haim

2:30-2:40 pm
Questions and Answers and Break

2:40-3:00 pm
Education in Stereotactic and Functional Neurosurgery
Kim Burchiel

3:00-3:20 pm
Educational Resources for Students - Where to Start & Incorporating AI
Tyler Ball

3:20-3:35 pm
Machine Learning in Neuromodulation
David Darrow

3:35-3:45 pm
Incorporating Machine Learning in Research
Dario Englot

3:45-4:00 pm
Questions and Answers and Course Wrap Up

1:00-4:00 pm

Superior Ballroom B

Special Course 5

Business of Functional Neurosurgery and Choosing a Job for Trainees

Course Directors: *Ellen Air, Ashwin Viswanathan*

1:00-1:05 pm
Overview: Time to Settle Down - Finding the Right Job
Ellen Air, Ashwin Viswanathan

1:05-1:15 pm
Perspectives of a New Graduate
Nisha Giridharan

1:15-1:30 pm
Exploring the Academic to Practice-based Spectrum
Jason Gerrard

1:30-1:45 pm
Prioritization and Job Fit
Rushna Ali

1:45-2:00 pm
Negotiating the Package
Jeffrey Raskin

2:00-2:15 pm
Subspecialty Specific Considerations: Epilepsy
Efstathios Kondylis

2:15-2:30 pm
Subspecialty Specific Considerations: DBS
Seth Oliveria

2:30-2:45 pm
Subspecialty Specific Considerations: Pain
Kevin Chen

2:45-3:00 pm
Beverage Break

3:00-3:15 pm
"I Have a Job, Now What?" Getting Started: Building an Interdisciplinary Team
Vanessa Milanese

3:15-3:30 pm
"I Have a Job, Now What?" Getting Started: Building an "Outside" Referral Base
Paul Larson

3:30-3:45 pm
"I Have a Job, Now What?" Getting Started: Who Bills and Where Does that Money Go?
Ellen Air

3:45-4:00 pm
"I Have a Job, Now What?" Getting Started: Integrating Research Without Breaking the Bank
Peter Konrad

4:00-5:30 pm

5th Floor Foyer

WINS and Resident Reception

SUNDAY, MAY 31, 2026

6:00 am-6:00 pm *5th Level Lakeside Foyer*

Registration

7:00-8:00 am *Hope Ballroom E*

Breakfast Session 1

Novel Indications for Neuromodulation

Moderators: *Justin Davanzo, Clement Hamani, Mojgan Hodaie*

7:00-7:15 am
SCS for Non Surgical Low Back Pain
Sayed Wahezi

7:15-7:30 am
What Have We Learned About Close-Loop DBS?
Kelly Foote

7:30-7:45 am
Clinical Trials for Novel VNS Applications
Leonard Calabrese

7:45-8:00 am
Advancements in Peripheral Nerve Stimulation
Konstantin Slavin

7:00-8:00 am *Superior Ballroom A-B*

Breakfast Session 2

The Role of AI-VR in Functional Neurosurgery

Moderators: *Michael Staudt, Doris Wang*

7:00-7:15 am
VR for DBS Surgical Planning and Electrode Confirmation
Vanessa Milanese

7:15-7:30 am
Machine Learning in Spinal Cord Stimulation for Chronic Pain
Ausaf Bari

7:30-7:45 am
Can Artificial Intelligence be Applied to SEEG Surgical Planning?
Nitin Tandon

7:45-8:00 am
Using Explainable AI to Extract Meaningful Markers of Psychiatric Disease States
Sameer Sheth

8:00-9:50 am

Superior Ballroom D

Plenary Session 1

Connectomics in Functional Neurosurgery

Moderators: *Sharona Ben-Haim, Dario Englot, Jennifer Sweet*

8:00-8:05 am
Introduction of Keynote Address
André Machado

8:05-8:35 am
Leadership Culture: Sports, Business and Community
Paul Dolan

8:35-8:49 am
Structural Connectomes for Modeling DBS Pathway Activations
Cameron McIntyre

8:49-9:03 am
Connectivity-Guided Neurostimulation in Psychiatric Disorders
Ki Sueng Choi

9:03-9:17 am
Patient-Specific Targeting and Stimulation in Movement Disorders
Michael Fox

9:17-9:30 am
Connectomics to Guide Surgical Treatment in Epilepsy
Robert Richardson

9:30-9:45 am
Perspective and Insight on the Future of Functional Neurosurgery
Aviva Abosch

9:45-9:47 am
Introduction of Research Award Winner
Jennifer Sweet

9:47-9:50 am
ASSFN Research Awardee: Thalamic Seizure Network Mapping in Patients with Medication-Refractory Epilepsy with Responsive Neurostimulation Targeting the Thalamus
Josue Avecillas-Chasin

9:30 am-4:00 pm

Superior Ballroom C

Exhibit Hall Open

9:50-10:20 am

Superior Ballroom C

Beverage Break with Exhibitors

Digital Poster Session 1 – *Digital Poster Kiosk 1*
Moderator: *Chadd Funk*

9:50–9:53 am
Reorganization of Intra Hemispheric Connectivity Following Corpus Callosotomy
Sahil Datta

9:53-9:56 am
Physics Informed Neural Network-Guided Identification of Synthetic Resistance Collapse Points and RNA-Small Molecule Chimera Therapeutics to Overcome Adaptive Therapy Escape in Glioblastoma Multiforme
Shivi Kumar

9:56-9:59 am
Directional ViM Deep Brain Stimulation for Isolated Essential Vocal Tremor in a Professional Vocalist
Andrea Zoana

9:59-10:02 pm
ZAP X Gyroscopic Radiosurgery for Brain Metastases
Patrick Pema

10:02-10:08 am
Safety and Efficacy of Staged Bilateral Magnetic Resonance Guided Focused Ultrasound Thalamotomy for Essential Tremor: A Systematic Review and Meta Analysis
Zachary Twomey

Digital Poster Session 2 - *Digital Poster Kiosk 2*

9:50–9:53 am
Mechanistic Basis of Segmental Selectivity in Dorsal Root Ganglion Stimulation
William Bannon, Tessa Harland

9:53–9:56 am
Altered Cognitive Effort Valuation in Chronic Temporomandibular Disorder Reveals a Transdiagnostic Marker of Motivational Dysfunction
Crina Peterson

9:56–9:59 am
Shunting Without Certainty: Ethical Decision Making in Tap Test Nonresponsive Normal Pressure Hydrocephalus
Jacob Saunders

9:59–10:02 am
Deep Brain Stimulation After MRI Guided Focused Ultrasound Ablation in Essential Tremor: A Report of Three Cases and Review of Literature
Jason Yuen

10:02–10:05 am
Downstream Suppression of Central Pain Networks During Dorsal Root Ganglion Stimulation
William Bannon

10:05–10:08 am
Integrating Bioinformatics and Neural Network Connectivity to Optimize Closed Loop Brain–Computer Interfaces for Post Surgical Cortical Rehabilitation
Shivi Kumar

10:20 am-12:00 pm

Superior Ballroom D

Parallel Session 1

Thalamic Connectivity and Its Impact on Functional Neurosurgery

Moderators: *Wael Asaad, Nicole Bentley*

10:20-10:35 am
Understanding Thalamocortical Connectivity
Brian Theyel

10:35-10:50 am
Thalamus and It's Role in Consciousness
Yuri Saalmann

10:50-11:05 am
Thalamic Connectivity and Impact on Adaptive Neuromodulation
Dario Englot

11:05-11:20 am
Clinical Applications of Thalamic Modulation
Vibhor Krishna

11:20-11:30 am
AMPLIFY Recipient: Leveraging Ultra-High Field Magnetic Resonance Imaging for StereoEEG Planning
Derek George

11:30 am-12:00 pm
Open Papers

11:30-11:35 am
Toward MER 2.0: High-Density Microelectrode ERNA Mapping for Accurate DBS Targeting
Ashwin Viswanathan

11:35-11:40 am
Evoked Resonant Neural Activity for DBS Surgery and Directional Lead Programming
Alan Bush

11:40-11:45 am
Premotor Cortex Beta Dynamics Distinguish At-Home Turning from Straight-Walking in Parkinson's Disease
Rithvik Ramesh

11:45-11:50 am
Comparative Multicenter Study of Thalamic Neuromodulation for Pediatric Drug-Resistant Epilepsy
Adam Glaser

11:50-11:55 am
Towards a New Mapping of Cortical Projections Into Subthalamic Nucleus Using Intraoperative In-vivo Electrophysiology
Seyyed Bahram Borgheai

11:55 am-12:00 pm
Structural Network Remodeling Predicts Levodopa-Induced Dyskinesia Severity: Demonstrated Using Correlational Tractography
Cuong Luu

10:20 am-12:00 pm

Hope Ballroom D

Parallel Session 2

Cortical Connectivity and Its Impact on Functional Neurosurgery

Moderators: *Bornali Kundu, John Rolston*

10:20-10:35 am
The Role of Cortical Mapping in Choosing Neuromodulation Strategies
Edward Chang

10:35-10:50 am
Electrophysiological Markers of Cortical Connectivity
Kai Miller

10:50-11:05 am
Human Multisensory Integration with Intracranial EEG Recordings
Patrick Karas

11:05-11:20 am
Bringing Connectomics to the OR
Michael Sughrue

11:20-11:30 am
AMPLIFY Recipient: Generating Movement: Neural Representation of Single versus Multi-Joint Coordination in the Precentral Gyrus
Philip Ostrov

11:30 am-12:00 pm
Open Papers

11:30-11:35 am
Distinct Human Accumbens Neuron Spike Patterns Differentially Encode Highly-Palatable Food Cues
Nikolaos Vardalakis

11:35-11:40 am
Human Hippocampal Ripples Convey Reward Information to the Nucleus Accumbens
Alex Vaz

11:40-11:45 am
Immediate Changes in Neural Features in the Ventral Capsule/Ventral Striatum Predict Eventual Response in DBS For Obsessive-Compulsive Disorder
Rick Hanish

11:45-11:50 am
Human Orbitofrontal Neural Activity is Linked to Obsessive-Compulsive Behavioral Dynamics and is Modulated by Ventral Basal Ganglia Stimulation
Liming Qiu

11:50-11:55 am
Ventral Capsule/Ventral Striatum DBS Improves Neural and Behavioral Indicators of Cognitive Control
Victoria Gobo

11:55 am-12:00 pm
Behavior-Informed Neural Decoding of Acute Distress and Long-term Symptom Severity in OCD
Timon Merk

12:00-12:50 pm

Non CME Sponsored Lunch Session

Boston Scientific - *Superior Ballroom E*
Novel Patterned Stimulation vs. aDBS to Improve Gait in Parkinson's Disease
Masha Malekmohammadi, Doris Wang

SetPoint Medical - *Hope Ballroom E*
Vagus Nerve-Mediated Neuroimmune Modulation for Rheumatoid Arthritis
Mark Richardson

1:00-3:00 pm

Superior Ballroom D

Plenary Session 2

Advances in Device Engineering and Development

Moderators: *Sarah Bick, Chengyuan Wu*

1:00-1:20 pm
Evolution of Surgical Tools and Implanted Devices for Functional Neurosurgery
Edward Chang

1:20-1:40 pm
Engineering Principles Behind Neuromodulation Systems
Scott Lempka

1:40-2:00 pm
Emerging Technologies in Device-Based Neurosurgery
Maryam Shanechi

2:00-2:15 pm
Regulation, Ethics and Responsible Deployment of Novel Technologies in Functional Neurosurgery
Paul Ford

2:15-2:30 pm
Updates on Advocacy Efforts and the Impact on the Future of Neuromodulation
Joshua Rosenow

2:30-2:35 pm
Introduction of ASSFN President
André Machado

2:35-3:00 pm
Presidential Address
Julie Pilitsis

3:00-3:40 pm

Superior Ballroom C

Beverage Break with Exhibitors

Digital Poster Session 3 - *Digital Poster Kiosk 1*
Moderator: *Ahmed Awad*

3:00–3:03 pm
Recurrence Patterns in WHO Grade II Meningiomas Treated with the Emerging GammaTile Brachytherapy
Julio Camacho

3:03–3:06 pm
Electrode Position Sensitivity and Narrow Therapeutic Windows in Dorsal Root Ganglion Stimulation
William Bannon

3:06–3:09 pm
Deep Brain Stimulation of the Bilateral Globus Pallidus Internus for Treatment Refractory Tardive Dyskinesia: A Single Center Case Series
Timi Akinwunmi Williams

3:09–3:12 pm
Externalization of Intrathecal Baclofen Pumps Using a Shoulder Sling: Technique and Clinical Outcomes
Ahmed Abdelwahab

3:12–3:15 pm
Deep Brain Stimulation of the Nucleus Accumbens for Refractory Opioid Addiction: A Pooled Analysis and Review of Literature
Stephen Jaffee

3:15–3:18 pm
ZAP X Stereotactic Radiosurgery for Treatment Resistant Depression
Patrick Pema

3:18–3:21 pm
Axonal Branch Point Filtering as a Determinant of Neural Signal Fidelity in Neuromodulation
William Bannon

Digital Poster Session 4 - *Digital Poster Kiosk 2*
Moderator: *Gabriel Friedman*

3:00–3:03 pm
Evaluation of Neuroablative Anatomical Targets and Modalities for Treatment Resistant Obsessive Compulsive Disorder: A Systematic Review and Meta Analysis of Treatment Outcomes and Adverse Effects
Tori Riccelli

3:03–3:06 pm
State Dependent Failure of Action Potential Propagation at Sensory Axonal Branch Points
William Bannon

3:06–3:09 pm
Rescuing Deep Brain Stimulation Failure in Refractory Epilepsy through Patient-Specific Network Targeting
Nealen Laxpati

3:09–3:12 pm
Disparities in Deep Brain Stimulation for Parkinson's Disease: The Role of Sex and Socioeconomic Status
Ariana Hernandez

3:12–3:15 pm
Patient Perceptions, Beliefs, and Attitudes That Inform the Acceptability of Invasive Neurostimulation Devices in the United States: A Scoping Review
Royal Bao

3:15–3:18 pm
Comparable Accuracy of N Frame and Classical Frame Registration in Robotic SEEG Implantation
Saachi Jhandi

3:18–3:21 pm
DBS Expectations in Parkinson's Disease: Informing Pre Operative Counseling
Allen Chen

3:40-6:00 pm

Superior Ballroom D

Parallel Session 3

Device Development: Bench to Bedside

Moderators: *David Darro, Nuri Ince*

3:40-3:55 pm
Adaptive DBS Algorithms: From Wearable Discovery to Multicentre IDE Trials
Suneil Kalia

3:55-4:10 pm
Responsive Neurostimulation 2.0: Expanding Targets and Biomarkers for Drug-Resistant Epilepsy
Vikram Rao

4:10-4:25 pm
High-Density and Closed-Loop SCS: Engineering Better Outcomes for Neuropathic Pain
Erika Petersen

4:25-4:45 pm
Personalized Closed-Loop DBS for Depression: A Precision-Psychiatry Road-Map
Katherine Scangos

4:45-5:00 pm
Rapid Prototyping & Regulatory Lessons for Invasive BCIs
Christoph Guger

5:00-5:15 pm
Implantable Systems: Sensing, Telemetry and Memory
Kent Leyde

5:15-6:00 pm
Open Papers

5:15-5:20 pm
Quantitative SEEG Biomarkers for Surgical Localization of the Seizure Onset Zone
HyangMok Baek

5:20-5:25 pm
Integrating Drug Delivery Capabilities into a SEEG-Based Recording, Stimulation, and Ablation Platform Technology
Aura Kullmann

5:25-5:30 pm
Rapid Quantitative MRI Workflow for Patient-Specific Visualization, Targeting and Lesion Assessment in Stereotactic Interventions
Rhea Adams

5:30-5:35 pm
Distinct Timescales of Ictogenesis Using Dynamical Systems Modeling: Slow Network Drift Versus Rapid Instability Cycling
Saarth Chitale

5:35-5:40 pm
Brain-state Foundation Modeling: Applications to Adaptive Closed-loop Neuromodulation of Epilepsy
Graham Johnson

5:40-5:45 pm
Epileptiform State-Dependence of Band-Specific Phase-Amplitude Coupling in SEEG Data from Refractory Temporal Lobe Epilepsy Patients
Md Rabiul Islam

5:45-5:50 pm
Amygdala Hyperexcitability and Interoceptive Circuit Disruption: Network Mechanisms of Postictal Central Apnea
Anas Reda

5:50-5:55 pm
Loss of Consciousness in Focal Seizures is Associated with Increased Basal Ganglia–thalamic Oscillatory Connectivity
Hohyun Cho

5:55-6:00 pm
First In-Human Use of a New Multi-Contact Radiofrequency Ablation Probe for the Testing and Treatment of Refractory Trigeminal Neuralgia
Michael Staudt

3:40-6:00 pm *Hope Ballroom D*

Parallel Session 4
Novel Device Advances in Functional Neurosurgery

Moderators: *Ahmed Raslan, Joshua Rosenow*

3:40-3:45 pm
Introduction
Ahmed Raslan, Joshua Rosenow

3:45-4:00 pm
Ultra High Density Cortical and Depth Systems for Diagnostic and Therapeutic Uses
Shadi Dayeh

4:00-4:15 pm
Cortical and Neural Stimulation for Rehabilitation and Restoration
Emily Graczyk

4:15-4:30 pm
LiFU as a Neuromodulatory Agent
Can Sarica

4:30-4:45 pm
Novel Uses of VNS
Parag Patil

4:45-5:05 pm
Advances in Neural Stimulation Neurorehabilitation
Douglas Weber

5:05-6:00 pm
Open Papers

5:05-5:10 pm
Optimizing Localization of Deep Brain Targets Using Anatomical Fiducials and Machine Learning
Alaa Taha

5:10-5:15 pm
AI-based Discovery of Functional Boundaries in the Human Brain from Intraoperative Electrophysiology
Matthew Baker

5:15-5:20 pm
First-in-human Sensorimotor Cortex Decoding with a Fully Wireless Thin-film Microelectrode Array with an Embedded Complementary Metal-Oxide-Semiconductor (CMOS) Application Specific Integrated Circuit
Brett Youngerman

5:20-5:25 pm
Context-Aware Multimodal Ecological Research and Assessment (CAMERA) Platform for Continuous Measurement and Prediction of Anxiety and Memory State
Hongkun Zhu

5:25-5:30 pm
Responsive NeuroStimulation for Post-Traumatic Stress Disorder: Outcomes from Brain Initiative Clinical Trial
Jean-Philippe Langevin

5:30-5:35 pm
Neural Dissociation of Speech Production Modalities: Multi-Frequency SEEG Analysis of Overt, Mimed, and Covert Speech
Hasan Mubarak

5:35-5:40 pm
Cortical Representation of Tactile Indentation Throughout the Human Sensorimotor Grasp Network
Brianna Hutchison

5:40-5:45 pm
Quantification of Myogenic and Motor-Associated Cortical Modulation Induced by Cerebellar Dentate Nucleus Deep Brain Stimulation in Humans
Carmen Toth

5:45-5:50 pm
Quantifying the Effective Parameter Space of Deep Brain Stimulation Using Pathway Activation Mapping
Chengyuan Wu

5:50-5:55 pm
A Customizable Model for Quantifying the Holistic and Multi-Specialty Value of a Functional Neurosurgeon
Akash Mishra

5:55-6:00 pm
Beyond the RVU: The Longitudinal Economic Value and Annuity Effect of Functional Neurosurgery
James Mossner

6:00-8:00 pm *Hope Ballroom E*

Opening Reception

MONDAY, JUNE 1, 2026

6:00 am-4:00 pm *5th Level Lakeside Foyer*

Registration

7:00-7:55 am *Hope Ballroom E*

Non CME Sponsored Breakfast Session

NeuroPace

Responsive Thalamic Neuromodulation for Drug-Resistant Epilepsy

Martha Morrell, Mark Richardson, John Rolston

8:00-9:30 am *Superior Ballroom D*

Plenary Session 3

Primed for Recovery: Clinical Insights Shaping Neuromodulation for Neurorehabilitation

Moderators: *Rushna Ali, Nathan Rowland*

8:00-8:10 am
Neuromodulation for Neurorehabilitation: Past, Present, Future
Jaime Henderson

8:10-8:30 am
Next-Gen Brain Computer Interfaces: Expanding Approaches, Functionality, & Clinical Use Case Scenarios
Leigh Hochberg

8:30-8:50 am
Targeting the Dentate Nucleus: Deep Brain Stimulation for Post-Stroke Motor Recovery
Ken Baker

8:50-9:10 am
Vagus Nerve Stimulation for Stroke Recovery: The Vivistim Experience
Charles Liu

9:10-9:30 am
Spinal Cord Stimulation for Motor and Autonomic Recovery After Neurologic Injury
David Darrow

9:00 am-3:30 pm *Superior Ballroom C*

Exhibit Hall Open

9:30-10:00 am

Superior Ballroom C

Beverage Break with Exhibitors

Digital Poster Session 5 - *Digital Poster Kiosk 1*
Moderator: *Danika Paulo*

9:30–9:33 am
Peripheral Gating and T Junction Filtering as Dominant Mechanisms of Analgesia in Dorsal Horn Neurons
William Bannon

9:33–9:36 am
Insulotaxy: Navigating the Human Insula with a Novel Stereotactic Framework
Panagiotis Kerezoudis

9:36–9:39 am
Regime Gated Neural Fragility for Interictal Seizure Onset Zone Localization: Guardrails Against Near Singular Inflation
Yusuf Qwareeq

9:39–9:42 am
Neurosurgical Intervention for Refractory Post Traumatic Trigeminal Neuropathic Pain: A Case Series
Samuel Daly

9:42-9:45 am
Comparative Effectiveness of Neuromodulation in Treatment Resistant Post Encephalitic Limbic Epilepsy
Anthony Patrizz

9:45-9:48 am
Thalamic Aperiodic Slope Dynamics and the Cortical Propagation of Focal Onset Seizures: SEEG Study
Alexander Cheung

9:48-9:51 am
Temporal Trends and Global Collaboration Networks in Deep Brain Stimulation Clinical Trials: A 25 Year Analysis
Derek George

Digital Poster Session 6 - *Digital Poster Kiosk 2*
Moderator: *Pranav Nanda*

9:30–9:33 am
Technical Feasibility and Accuracy of Direct Stereotactic Targeting of the Substantia Nigra
Craig van Horne

9:33–9:36 am
Predictors of Early Pain Relief and Time to Recurrence after Percutaneous Rhizotomy for Idiopathic Trigeminal Neuralgia: A Rural Single Center Experience
Samuel Daly

9:36–9:39 am
Modulation of the Anterior Intraparietal Area to Grasp Object and Audio Cues
Emily Conlan

9:39–9:42 am
Neural and Behavioral Dynamics Neurorehabilitation Abstract
Jessica Montalvo

9:42–9:45 am
Streamlining Postoperative Length of Stay after Deep Brain Stimulation for Parkinson's Disease and Essential Tremor
Aeon Alex Nyx

9:45–9:48 am
Time Dependent Adaptation of Afferent Recruitment during Tonic Dorsal Root Ganglion Stimulation
William Bannon

10:00 am-12:00 pm

Superior Ballroom D

Parallel Session 5

Neuromodulation for Functional Recovery: DBS, SCS, PNS, VNS

Moderators: *Wael Asaad, Jennifer Sweet*

10:00-10:20 am
VNS Therapy for Stroke Recovery: Translational Considerations
Steven Cramer

10:20-10:40 am
Thalamic Modulation for Disorders of Consciousness
Nicholas Schiff

10:40-11:00 am
CNS-PNS Interfaces for Motor Recovery in Tetraplegia
Jennifer Sweet

11:00-11:20 am
Spinal Cord Interfaces for SCI Recovery of Function
Jared Fridley

11:20-11:30 am
AMPLIFY Recipient: Neuromodulation for Improving Lower Urinary Tract Function in a Large Animal Model of Peripheral Nerve Injury
Amardeep Sekhon

11:30-11:40 am
AMPLIFY Recipient: From Records to Recovery: AI-Driven Identification of Stroke Patients for VNS-enhanced Rehabilitation
Mackenzi Hagood

11:40 am-12:00 pm
Open Papers

11:40-11:45 am
Vagus Nerve-mediated Neuroimmune Modulation in Patients with Active Rheumatoid Arthritis with an Inadequate Response to TNF Inhibitors
Robert Richardson

11:45-11:50 am
Integrated Ultrasound–Magnetic Neuromodulation Yields Sustained Analgesia in Rodent Neuropathy
Julie Pilitsis

11:50-11:55 am
Neurophysiology Biomarkers of STN/GPI Deep Brain Stimulation Effects on Working Memory
Jordan Vanleuven

11:55 am-12:00 pm
Acute Theta-Burst Versus Conventional DBS: Effects on Motor Control, Verbal Fluency, and Network Connectivity in Parkinson's Disease
Xenos Mason

10:00 am-12:00 pm

Hope Ballroom D

Parallel Session 6

Role of BCI and Neuroprosthesis

Moderators: *Nader Pouratian, Jon Willie*

10:00-10:20 am
Decoding Speech for a Voice-synthesis Neuroprosthesis
Nicholas Card

10:20-10:40 am
Spinal Cord-computer Interface for Motor Recovery
Douglas Weber

10:40-11:00 am
Implantable BCI for Vision Restoration
Nader Pouratian

11:00-11:20 am
Role of Brain and Spinal-computer Interface for Gait Deficits
James Guest

11:20 am-12:00 pm
Open Papers

11:20-11:25 am
Preclinical Evaluation of a Novel Paddle Spinal Cord Stimulation Lead to Deliver EVOKE™ Therapy
Erika Petersen

11:25-11:30 am
Ultra-High-Density Cortical Mapping Reveals Circuit-Specific Modulation and Connectivity Predictors of Clinical Response During STN-DBS And VIM-DBS in Parkinson's Disease and Essential Tremor
Min Jae Kim

11:30-11:35 am
Adaptive Deep Brain Stimulation Associated with Improved UPDRS Motor Scores and Decreased Levodopa Requirements
Gabriel Friedman

11:35-11:40 am
Leveraging Motor Preparatory Activity for High-Performance Human Brain-Computer Interface Control
Nicholas Au Yong

11:40-11:45 am
Dissociating the Chronic Pain State: Neural Transfer Accuracy Reveals Maladaptive Network Dynamics and Trait-Level Abnormalities in Human Intracranial Recordings
Punisa Lekovic

11:45-11:50 am
Intracranial Recordings Reveal Delta-band Power Changes in the Ventral Striatum and Orbitofrontal Cortex During OCD Symptom Provocation
Matthew Ochoa

11:50-11:55 am
Towards an Objective, Physiologically Guided Biomarker of Depression Symptom Severity and Therapy Status
Akash Mishra

11:55 am-12:00 pm
Network-Guided Identification of Hyperplastic Corticolimbic Circuits and Targeted Neuromodulation Strategies to Optimize Surgical and Psychiatric Outcomes In Treatment-Resistant Mood and Anxiety Disorders
Shivi Kumar

12:00-1:15 pm

Superior Ballroom A-B

Honored Guest Lunch

Aviva Abosch

1:15-2:45 pm

Superior Ballroom D

Plenary Session 4

Advances in Biological Therapies

Moderators: *Paul Larson, Doris Wang*

1:15-1:20 pm
Introduction to Cell and Gene Therapies: An Overview
Sharona Ben-Haim

1:20-1:35 pm
Cell and Gene Therapy for Parkinson's Disease: An Overview of Current Clinical Trials and Existing Data
Steven Ojemann

1:35-1:50 pm
Cell and Gene Therapy for Epilepsy: Current and Future Trials
Kim Burchiel

1:50-2:05 pm
Cell and Gene Therapy for Spinal Cord Diseases
Nicholas Boulis

2:05-2:20 pm
Delivery of Advanced Biologics into the Brain: Study Startup and Technical Surgical Considerations
Kunal Gupta

2:20-2:35 pm
Biologic Therapies: Future Technology, Routes of Transmission, and Clinical Indications
Paul Larson

2:35-2:45 pm
Conclusion and Future Directions
Paul Larson

2:45-3:15 pm

Superior Ballroom C

Beverage Break with Exhibitors

Digital Poster Session 7 - *Digital Poster Kiosk 2*
Moderator: *Jasmine Thum*

2:45-2:48 pm
Deep Brain Stimulation Patent Literature: Bibliometric Analysis Using AI Assisted Knowledge Graph Construction
Jakob Hockman

2:48-2:51 pm
The Intersections of Autism Spectrum Disorder and Neurosurgical Treatment
Allison Tang

2:51-2:54 pm
Multi Target Deep Brain Stimulation for Parkinson's Disease and Parkinsonian Syndromes: A Comprehensive Review
Wei Lin

2:54-2:57 pm
Unilateral Thalamic Deep Brain Stimulation for Refractory Epilepsy
Brooke Elberson

2:57-3:00 pm
Comparison of Two Workflows for Preoperative to Postoperative MRI Deformation Registration for Epilepsy Surgery Evaluation
Vy Le

3:00-3:03 pm
Alleviation of Opioid Cravings Associated with DBS for Obsessive Compulsive Disorder: A Case Report
Grace Leslie Nitcheu

3:03-3:06 pm
Factors Influencing Longitudinal Outcomes in Essential Tremor and Parkinson's Disease after Deep Brain Stimulation
Kobie Mensah Brown

Digital Poster Session 8 - *Digital Poster Kiosk 1*
Moderator: *Iahn Cajigas*

2:45-2:48 pm
Postoperative Weight Gain after Pallidothalamic Tractotomy for Dystonia
Eriko Kamijo

2:48-2:51 pm
Long Term Safety and Efficacy of MR Guided Focused Ultrasound Bilateral Capsulotomy for Treatment Refractory Obsessive Compulsive Disorder: A Single Arm Meta Analysis
Khushal Gupta

2:51-2:54 pm
Target FUS Software for the Analysis of High Intensity Focused Ultrasound Procedures
Hengji Chen

2:54–2:57 pm
Language Recovery Following Paired Vagus Nerve Stimulation Therapy after Stroke: A Case Report
Elizabeth Hussar

2:57–3:00 pm
Quantitative Imaging Algorithm for Prognostic Factors in Traumatic Brain Injury
Ethan Rosenblum

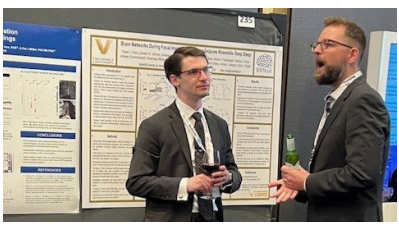
3:00–3:03 pm
Adaptive Trial Designs for Deep Brain Stimulation Research: Promising Potential, but Underutilized
Olivia Hogue

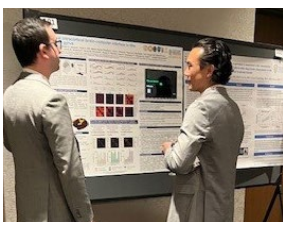
3:03–3:06 pm
DBS at the Centromedian and Parafascicular Thalamic Nuclei Is Associated with Conscious Recovery Linked Changes in Cortical Electrodynamic and Anatomical Activity
Nayef Hamdan

3:15-5:15 pm *Veterans Meeting Room and Foyer*

Poster Session with Wine & Cheese

Moderators: *Nicole Bentley, Kevin Chen, Justin Davanzo, Islam Fayed, Jason Gerrard, Clement Hamani, Lora Kahn, Suneil Kalia, Peter Konrad, Dorian Kusyk, Athar Malik, Danika Paulo, Ahmed Raslan, Doris Wang, Alexander Whiting*





5:00-6:00 pm *Superior Ballroom D*

ASSFN Annual Business Meeting

Presiding Officer: *Julie Pilitsis*

TUESDAY, JUNE 2, 2026

6:00 am-12:00 pm *5th Level Lakeside Foyer*

Registration

7:00-7:55 am *Hope Ballroom E*

Non CME Sponsored Breakfast Session

8:00-10:00 am *Superior Ballroom D*

Plenary Session 5

Advances in Lesioning Modalities: HiFU, LITT and Beyond

Moderators: *Ellen Air, Julie Pilitsis*

8:00-8:20 am
Bilateral Parkinson's Disease: When HIFU is the Right Choice
Michael Kaplitt

8:20-8:40 am
Who Should Be Doing HIFU for Movement Disorders
Clement Hamani

8:40-9:00 am
Optimizing HIFU Lesions: Shape, size, and Managing SDR
Ahmed Raslan

9:00-9:20 am
Optimizing LITT as First Line Treatment for Epilepsy
John Rolston

9:20-9:35 am
LITT for Insular and Other Deep Tumors
Ian Lee

9:35-9:50 am
HIFU for Psychiatric Disease
Nir Lipsman

9:50-10:00 am
Award Ceremony

9:00-11:00 am *Superior Ballroom C*

Exhibit Hall Open

10:00-10:30 am

Superior Ballroom C

Beverage Break with Exhibitors

Digital Poster Session 9 - *Digital Poster Kiosk 2*
Moderator: *Kara Johnson*

10:00–10:03 am
Seizure Freedom after SEEG Guided Ablation of a Non Epileptogenic Heterotopia
Marisol Soula

10:03–10:06 am
Mesencephalotomy for Chronic Pain: A Systematic and Historical Review
Sahar Hoveyda

10:06–10:09 am
Outcome of Bilateral STN DBS in Two Parkinson's Disease Patients with SNCA Duplication
Alexis Santangelo

10:09–10:12 am
Hydrocephalus and Cognitive Decline as an Adverse Effect of Stereotactic Radiosurgery in a Patient with Hemangioblastoma: A Case Report
Alexander Acevedor Jetter

10:12–10:15 am
Deep Brain Stimulation for Alzheimer's Disease: A Multi Dimensional Meta Analysis Revealing Target Specific Effects and the Neurophysiological Clinical Dissociation
Wei Lin

Digital Poster Session 10 - *Digital Poster Kiosk 1*
Moderator: *Shervin Rahimpour*

10:00–10:03 am
Laterality Errors in Stereotactic Functional Neurosurgical Procedures
Victor Goulenko

10:03–10:06 am
Deep Brain Stimulation for Treatment Resistant Anorexia Nervosa: Updated Meta Analysis of Timepoint Specific Response and Safety Across NAc and SCC Targets
Khushal Gupta

10:06–10:09 am
Spatial Analysis of Magnetic Resonance Imaging Guided Focused Ultrasound Surgery Utilization for Essential Tremor in Chicagoland
Gyung Seol

10:09–10:12 am
Intrathecal Pain Pumps for Chronic Non Malignant Pain
Julie Pilitsis

10:12–10:15 am
Laser Interstitial Thermal Therapy for Posterior Quadrant Disconnection
Brooke Elberson

10:15–10:18 am
Ultra Delayed Hydrocephalus 28 Years after Anatomic Hemispherectomy: Implications for Lifelong Surveillance
Julio Vandama

10:30 am-12:00 pm

Superior Ballroom D

Parallel Session 7

Lesioning for Functional Neurosurgeons

Moderators: *Shabbar Danish, Richard Rammo*

10:30-10:50 am
The Evolution of Ablative Neurosurgery in Modern Day Movement Disorders
Peter Konrad

10:50-11:10 am
Lesioning in Epilepsy Surgery: Lessons Learned
Nehaw Sarmey

11:10-11:30 am
Open and Percutaneous Approaches in Ablative Spinal and Facial Pain Surgeries
Konstantin Slavin

11:30-11:50 am
Ablation for Brain Tumors: Role of a Functional Neurosurgeon
Nitesh Patel

11:50 am-12:00 pm
Improving Lesioning Techniques with Advanced Imaging
Joseph Neimat

10:30 am-12:00 pm

Hope Ballroom D

Parallel Session 8

Role of Lesioning in the Pediatric Population

Moderators: *George Ibrahim, Demitre Serletis*

10:30-10:50 am
HIFU in Cerebral Palsy
Chima Oluigbo

10:50-11:10 am
Selective Dorsal Rhizotomy for Spasticity
Charles Stevenson

11:10-11:30 am
SEEG-Guided Radiofrequency Ablation in Pediatric Epilepsy
George Ibrahim

11:30-11:50 am
Laser Interstitial Thermal Therapy in Pediatric Epilepsy
Daniel Curry

11:50 am-12:00 pm
Panel Discussion
Daniel Curry, George Ibrahim, Chima Oluigbo, Charles Stevenson

THANK YOU

to our ambassador

Abbott

THANK YOU

to our partner

Medtronic

THANK YOU

to our partner

NEUROPACE

1000 **Direct Targeting of the Caudal Zona Incerta for Deep Brain Stimulation: Comparative Study at 7 Tesla Versus Standard Magnetic Field Strength**
Arun Thurairajah; Alaa Taha; Amir Saam Youshani; Violet Liu; Homa Vahidi; Ali Khan; Keith MacDougall; Andrew Parrent; Jonathan Lau

1001 **Reconnecting the Hand and Arm to the Brain: Targeting Optimal Grasp-Related Cortical Areas for Intracortical Brain-Computer Interfaces in Spinal Cord Injury**
Tyler Johnson; Crispin Foli; Rohit Bose; Robert Kirsch; Eric Herring; William Memberg; Dawn Taylor; Emily Graczyk; Jennifer A. Sweet; A. Bolu Ajiboye

1002 **A Brain-Computer Interface for Detection of Covert Command Following After Acute Brain Injury**
Sima Mofakham; Noah Lubin; Sujith Swarna; Chiemeka Uwakwe; Charles B. Mikell

1003 **Restoring Proprioception via Intracortical Microstimulation Targeting the Bottom of the Central Sulcus**
Dawn Taylor; Tyler Johnson; Emily Graczyk; A. Bolu Ajiboye; Ziling Luo; Sarah Moralle

1004 **Deep Learning Based Noninvasive Selective Activation and Suppression of the Human Brain with Natural Images**
Andrii Zahorodnii; Riley DeHaan; Ila Fiete; Joshua P. Aronson

1005 **Large Mammal Validation of Subcellular Carbon Fiber Electrodes for Brain-Computer Interfaces**
Jordan Lam; Joseph Letner; Miranda Copenhaver; Logan Walker; Madelynn Isbrecht; Natalie Slosar; Julianna Richie; Mou-Chi Cheng; Ayobami Ward; Matthew Willsey; Dawen Cai; Cynthia Chestek

1006 **Touch Sensation Evoked by Intracortical Microstimulation and Peripheral Nerve Stimulation After Spinal Cord Injury**
Emily Graczyk; Rohit Bose; Bronwyn Spilker; Preethisiri Bhat; William Memberg; Eric Herring; Stanley Bazarek; Abidemi Bolu Ajiboye; Jennifer A. Sweet

1007 **Effect of Visual Object Deformation on Neural Representation of Grasp Force in the Human Grasp Network**
Meron Abate; Eric Herring; Jennifer A. Sweet; A. Bolu Ajiboye

1008 **Directed Network Dynamics Differentiate Successful Recognition from Correct Rejection in Human Intracranial EEG New-Old Delay Tasks**
Aditya Kumar; Kevin Tyner; Matthew Svalina; Ross R. Moseley; Aaron Geller; Ueli Rutishauser; Daniel R. Kramer; John Thompson

1009 **Human Middle Temporal Gyrus Neurons Underlie Navigation in Abstract Space**
Joshua M. Diamond; Weizhen Xie; Kareem A. Zaghloul

1010 **Quantifying the Perceptual and Cortical Effects of Varying Pulse Frequency in Peripheral Nerve Stimulation**
Preethisiri Bhat; Bronwyn Spilker; William Memberg; Jennifer A. Sweet; Bolu Ajiboye; Emily Graczyk

1011 **Auditory Feedback Signals in Speech Premotor Areas During Vowel Production**
Zane Schnurman; Sasidhar Madugula; Francis Willett; Jaimie M. Henderson

1012 **Reconstructing Language from Minimal Residual Elements in Aphasia**
Aditya Singh; Tessy M. Thomas; Oscar Woolnough; Nitin Tandon

1013 **Predicting the Neural Activity of Dextrous Movements from the Neural Activity of Simple Movements via Geodesic Interpolation**
John Krall; Brianna Hutchison; William Memberg; Robert Kirsch; A. Bolu Ajiboye

1014 **Multi-level Speech Processing in the Ventral Premotor Cortex**
Crispin Foli; Eric Herring; Jennifer A. Sweet; A. Bolu Ajiboye

1015 **Improving Skin Health Around Percutaneous Brain Implants with Photobiomodulation**
Dawn Taylor; Ziling Luo; Sarah Moralle

1100 **Spatiotemporal Properties of Temporal Interference Electrical Stimulation**
Ryohei Yoshimoto; Matthew A. Stern; Emma Arcebo; Thomas Eggers; Nealen Laxpati; Ken Berglund; Claire-Anne Gutekunst

1101 **Development of a Stereotactic System for Neurosurgery Targeting: A Prospective Pre-clinical Phantom Study.**
Ahmed Abdelwahab; Istvan Takacs; Alejandro M. Spiotta; Nathan C. Rowland; Hasna Loulida

1102 **Artificial Intelligence Applications in Spinal Cord Stimulation: A Meta-Analysis**
Barbara Buccilli; William J. Bannon IV; Andrew Schindler; Dina Mohammed; Ruchit P. Jain; Nuha Mohammed; Matthew Goldman; Amna S. Hussein; Amir H. Faraji

1103 **Smartphone Neuronavigation Using Facial Registration**
Jakob Hockman; Jeroen R. Coppens; Minjun Park; Najib El Tecle

1104 **Effects of the GLP-1 Agonist Semaglutide on Methamphetamine-Taking Behavior in Sprague-Dawley Rats**
Michael Folse; Ethan Brackett; Bo Wood; Patrick Patisaul; Kevin Murnane

1105 **Accuracy and Clinical Outcomes of Deep Brain Stimulation Lead Placement Using a Floor-Mounted Robotic-Assisted Navigation System: A Prospective Multicenter Study**
Francisco A. Ponce; Arnold B. Vardiman; Markey Olson; Samantha Franklin; Jayla M. Hatcher; Guerra Samantha

1106 Public-Facing Data Governance Disclosures in Implantable Neuromodulation Systems: A Systematic Policy Audit
Benjamin Weiss; Joshua Tennyson; David Zhang; Connor McCloskey; James M. Mossner; Joshua M. Rosenow

1107 Which Comes First, the Nociceptor or Nerve Trunk? Anatomical and Computational Modeling Considerations for Transcutaneous Trigeminal Nerve Stimulation
Jennifer Perrault; Keith Kozma; Weifeng Zeng; Zeeda Nkana; Nicholas Albano; Kirsten Gunderson; Samuel Hurley; Wendell B. Lake; Justin C. Williams; Samuel Poore; Kip Ludwig; Aaron Dingle; Aaron J. Suminski

1108 New FDA-cleared Multi-Contact RF Probe for Trigeminal Neuralgia: Cadaveric Feasibility and Usability Evaluation
Aura Kullmann; Maria Vomero; Maria Francisca Porto Cruz; Hijaz Haris; Kridner Debra; Mary McNeil; Alfonso Chavez; Adam Gullickson; Mark Christianson; Camilo Diaz-Botia; David P. Darrow

1109 Effect of Non-Consecutive Treatment During Hypofractionated Stereotactic Radiosurgery for Brain Metastases
John Chen; Takahiro Sanada; Danielle Golub; Akash Mishra; Harshal Shah; Isabelle Pelcher; Daniel G. Eichberg; Anuj Goenka; Michael Schulder

1110 An ISO Framework for Registration Accuracy in Magnetic Resonance Images with Relevance to Stereotactic Neurosurgery
Dickson Wong; Alaa Taha; Mohamad Abbass; Greydon Gilmore; Brendan Santyr; Terry M. Peters; Jonathan C. Lau

1111 Ultra-High Frequency Stimulation of the Septohippocampal Network Demonstrates Unique Activation Patterns under Functional Ultrasound Imaging
Kevin Wu; Harry Park; Jack Y. Lo ; Matthew Bergosh; Wooseong Choi; Nancy Zepeda; Jonathon Cavaleri ; Jonathan Dallas; Robert G. Briggs; Charles Y. Liu; Vasileios Christopoulos; Darrin J. Lee

1112 Electrically Isolated, Analog-to-Analog Audio Synchronization Circuit for Human Electrophysiology Neuroscience Research
David Caldwell; Ludvik Alkhoury; Jason E. Chung ; Edilberto Amorim; Geoffrey Manley; Edward F. Chang

1113 Characterizing Time to Depletion in Multiple Independent Current Control Rechargeable Implantable Pulse Generators for Deep Brain Stimulation
Soroush Niketeghad; David Turgutyan; Lisa Moore; Luke Edwards

1200 **Safety and Feasibility of Stereo-electroencephalography Guided Radiofrequency Thermocoagulation in Patients with Neuromodulation Devices**
Brin Freund; Venkateshwaran Vijayanarasimhan; Carlos Perez-Vega; Adrian Safa; William Tatum; Sanjeet S. Grewal

1201 **Olfactory Function Outcomes Following Temporal Lobectomy : A Systemic Review**
Thana Namer; Fatimah Alshakhs

1202 **Adult-Style Responsive Neurostimulation in Pediatric Focal-Onset Epilepsy: Updated Systematic Review and Single-Arm Meta-Analysis**
Khushal Gupta; David J. Altschul; Emad N. Eskandar

1203 **Interictal Influence of Thalamic Nuclei on the Seizure Onset Zone in Temporal Lobe Epilepsy**
Bruno Hidalgo Monroy Lerma; Ghassan Makhoul; Anas Reda; Addison Cavender; Price Withers; Kate Wang; Derek Doss; Chadd Funk; Graham Johnson; Catie Chang; Shawniqua Williams Roberson; Robert P. Naftel; Tyler J. Ball; Sarah K. Bick; Angela Crudele; Dario Englot

1204 **Inferior No More: High Rates of Seizure Freedom for Both Laser Interstitial Thermal Therapy and Open Temporal Lobe Epilepsy at a Single High-Volume Epilepsy Center**
Salil Bhole; Harsh Shah; Jon T. Willie

1205 **Machine Learning Using Resection-based Radiomics and MRI Atlas Features for Prognosis in Temporal Lobe Epilepsy Surgery in Hippocampal Sclerosis**
Cyrus Ayubcha; Adam Glaser; Aaron Warren; Hyae Won Kim Redden; John Rolston

1206 **Delayed Seizure Onset Zone Reintegration May Influence Post-ictal Network Recovery in Temporal Lobe Epilepsy**
Kate Wang; Ghassan Makhoul; Bruno Hidalgo Monroy Lerma; Anas Reda; Addison Cavender; Price Withers; Derek Doss; Graham W. Johnson; Tyler J. Ball; Sarah K. Bick; Victoria Morgan; Catie Chang; Dario Englot

1207 **Network-Guided Identification of Hyperexcitable Cortical Hubs to Predict Surgical Outcomes in Refractory Epilepsy**
Shivi Kumar; Alyssa Davis

1208 **Vagus Nerve Stimulation in Epilepsy Occurring Below 4 Years of Age - a Systematic Review and Meta-analysis**
Venkateshwaran Vijayanarasimhan; Wei Lin; Shivani Chaudhary; Sanjeet S. Grewal

1209 **Leveraging Dimensionality Reduction to Distinguish Behavioral and Epileptic Brain States**
Gunhee Lee; Thomas Eggers; Alejandra Fernandez; Claire-Anne Gutekunst; Nealen Laxpati

1210 **Measuring Dynamic Thalamocortical Connectivity via Subgaleal EEG: A Candidate DBS Control Signal**
Teryn Johnson; Bobby Mohan; Parker Layton; Harvey Haung; Justin Cramer; Cornelia Drees; Matthew Hoerth; Amy Crepeau; Joseph Drazkowski; Angela Wabulya; Katherine Noe; Jonathon J. Parker

1211 **Comparative Outcomes of Thalamic Stimulation for Drug Resistant Epilepsy**
Carson Mahant; Vishal Pandya; Patrick Bauer; Aditya Vuppala; Manoj Raghavan; Chad Carlson; Sean M. Lew; Sara Swanson; Kunal Gupta

1212 **Clinical Importance of Stimulation Timing in Responsive Neurostimulation for Epilepsy**
Suk Joon Lee; Nathaniel D. Sisterson; Victoria Peterson; Robert M. Richardson

1213 **Hardware-in-loop Benchtop Brain Electrophysiology Phantom Utilizing Real-world Human Intracranial EEG Signal**
Bobby Mohan; Teryn Johnson; Parker Layton; Ben lange; Behrang Fazli Besheli; Cornelia Drees; Matthew Hoerth; Amy Crepeau; Joseph Drazkowski; Angela Wabulya; Katherine Noe; Nuri Ince; Jonathon J. Parker

1214 **Independent Component Analysis–Based SLORETA Source Localization Predicts the Seizure Onset Zone in Drug-Resistant Epilepsy**
Sean O'Leary; Lornee C. Pride; Vy Le; Anne-Cecile Lesage; Liliana Camarillo Rodriguez; Francis D. Hussey; Saketh Amasa; Patrick J. Karas

1215 **Implantation Strategies and Findings in Thalamic SEEG Implantation**
Richard Rammo; Neha John; Balu Krishnan; Andreas Alexopoulos; Dileep Nair; Imad Najm; William E. Bingaman; Juan Bulacio; Demitre Serletis

1216 **Combining Independent Component Analysis and FEM Source Localization for Epileptogenic Zone Localization Using Stereoelectroencephalography**
Anne-Cecile Lesage; Lornee C. Pride; Vy Le; Sean O'Leary; Liliana Camarillo Rodriguez; Patrick J. Karas

1217 **Current Global and National Trajectories in Surgical and Device-Based Interventions for Medically Refractory Epilepsy: A Comparative Analysis**
Dara Farhadi; Azeez Abdul; Kristin Huntoon; Martin E. Weinand; Paul S. Larson; Nehaw Sarmey

1218 **Whether Prior Epilepsy Surgeries Affect the Seizure Control after Anterior Nucleus of Thalamus Deep Brain Stimulation: A Meta-Analysis**
Yu-Chi Wang

1219 **Probing the Local and Distant Effects of Neurostimulation on Epileptic Brain Networks**
Price Withers; Bruno Hidalgo Monroy Lerma; Ghassan Makhoul; Addison Cavender; Anas Reda; Kate Wang; Derek Doss; Graham Johnson; Chadd Funk; Shawniqua Williams Roberson; Robert P. Naftel; Angela Crudele; Sarah K. Bick; Victoria Morgan; Dario Englot

1220 **Graded Extent of Hippocampal Resection Is Related to Neuropsychological Outcomes in Temporal Lobe Epilepsy Surgery**
Havish Gattu; Eliza Reedy; Emma Robinson; Thandar Aung; Catherine Liegeois-Chauvel; Danielle R. Carns; Natalie Sherry; Luke Henry; Bradford Mahon; Jorge A. González-Martínez; Arka N. Mallela

1221 **MRI-negative Epilepsy: Machine-learning Distinction of the Epileptogenic Zone from FLAIR and MPRAGE MRI**
Daniela Stastna; Jamie J. Van Gompel

1222 **Feasibility of Capturing HFOs in the Acute Setting Using the CorTec Brain Interchange in Patients with Epilepsy**
Behrang Fazli Besheli; Amir Hossein Ayyoubi; Chandra Prakash Swamy; Jhan L. Okkabaz; Kai J. Miller; Jamie J. Van Gompel; W. Richard Marsh; Gregory A. Worrell; Nuri Ince

1223 **SEEG-Guided Radiofrequency Ablation with Real-Time Temperature Control: from Early Clinical Experience to the Development of a Post-Market Registry**
Aura Kullmann; Mary McNeil; Hijaz Haris; Dave Rosa; Mark Christianson; Christopher Volker; Kridner Debra; Camilo Diaz-Botia

1225 **Retrospective Analysis of Surgical Plans and Clinical Outcomes of 102 Consecutive Thalamic SEEG Investigations for Drug-resistant Epilepsy**
Brian Hsueh; Suk Joon Lee; Zhengzheng Liang; Leah Barz-Snell; Pranita Sannidhi; Mira Hasner; Nathaniel D. Sisterson; Pranav Nand; Robert M. Richardson

1226 **Clinical Outcomes after Stereo-EEG–Guided Radiofrequency Thermocoagulation for Drug-Resistant Epilepsy**
Daniel Colome; Christina Cacoulidis; Emma Sargent; Elliot Neal; Yarema Bezchlibnyk

1227 **Combined EEG and Resting State FMRI Analysis as a Potential Biomarker for Mesial Temporal Lobe Epilepsy**
David Baker; Kendyl Pennington; Danielle Weiss; Anthony Murro; Debra Moore-Hill; Christopher Carr; Arif Zidan; Wei Zhang; Zi Wang; David Blake; Fernando L. Vale

1228 **Dissociating Physiological and Pathological HFOs Using Task-Evoked High Frequency Responses in Intracranial EEG**
Martina Kolajova; Behrang Fazli Besheli; Valentina Hrtonova; Israt Tasnim; Enes Arslan; Chandra Prakash Swamy; Eva Alden; Jamie J. Van Gompel; W. Richard Marsh; Kai J. Miller; Vaclav Kremen; Gregory A. Worrell; Nuri Ince

1229 **Differential Utilization of Cortical and Deep Brain Stimulation Based on Income Level, Health Insurance, and Social Vulnerability Index in Drug-Resistant Epilepsy: A COSMOS Study**
Herman Li; Derek George; Lucas Sears; Keshov K. Sharma; Webster H. Pilcher; Andrew M. Wensel; Melissa LoPresti

1230 **Safety and Clinical Utility of Thalamic Stereoelectroencephalography in Drug-Resistant Epilepsy: A Single Institution's Experience**
Patrick Bi; Keanu Chee; Reagan Bae; Cate Gwinn; Gabriel Friedman; George Plummer; Behnaz Esmaeili; Shahin Hakimian; Jeff Tsai; Andrew L. Ko; Ben L. Grannan

1231 **Post-Implant Thalamic Oscillations Correlate with Deep Brain Stimulation Efficacy in Drug-Resistant Epilepsy**
Xinbing Zhang; Zachary Sanger; Thomas Lisko; Theoden Netoff; Robert A. McGovern

1232 **Thalamic SEEG Provides Clinically-actionable Data for Personalized Neuromodulation in Epilepsy**
Anthony Piscopo; Alexander Greven; Maya Jayaram; Stephen Foldes; Kris Smith; Kevin Choi; Ritika Suri; Yajing Xiong; Deana Gazzola; Susan Herman; Laura Lehnhoff; Courtney Schusse; Vladimir Shvarts; David Harris; Andrew I. Yang

1234 **Stereo-EEG–Guided Responsive Neuromodulation: A Propensity-Matched Cohort Study**
David B. Botros; Julian Brown; John Rolston; Paul A. House; Amir Arain; Shervin Rahimpour; Ben Shofty

1235 **RNS V DBS: Age and Electroencephalographic Phenotype Define the Clinical Roles of Centromedian Thalamic Neurostimulation in Drug-Resistant Epilepsy**
Diana Chang; Gary W. Mathern; Dawn Eliashiv; Itzhak Fried; Mishek Thapa; Ausaf A. Bari; Hiroki Nariai; Aria Fallah

1236 **Quantification of Norepinephrine Release in Human Dorsal Anterior Cingulate in Patients with Vagal Nerve Stimulation**
James Kelbert; Samuel McClure; Robert W. Bina

1237 **Unilateral Interhemispheric Approach for Bilateral Posterior Cingulate Coverage in Stereoelectroencephalography**
Amir Saam Youshani; Khalid Al Orabi; Arun Thurairajah; Western Epilepsy Research Group; Keith MacDougall; David Steven; Jonathan Lau

1238 **What Is a "Standard" Temporal Lobectomy? a Survey of Epilepsy Surgeons**
Michael D. Staudt; Richard Rammo; Chengyuan Wu

1239 **Centromedian Thalamic Responsive Neurostimulation for Generalized and Multifocal Epilepsy: A 70-Patient Multicenter Cohort**
Mira Hasner; Nathaniel D. Sisterson; Soumya Peri; Joel Oster; Alex Bender; Niravkumar Barot; Laura Chenevert; Pranav Nanda; Catherine Chu; Syd Cash; Alexandra Urban; Saadi Ghatan; Robert M. Richardson

1240 **Aperiodic 1/f Noise Captures Stochastic Neural Dynamics in Epileptiform SEEG Recordings**
Neha John; Juan Bulacio; William E. Bingaman; Imad Najm; Balu Krishnan; Demitre Serletis

1241 **State-Robust Temporal Lobe Network Phenotype in Interictal SEEG Across Awake and Sleep**
Yusuf Qwareeq; Michael Kogan; Caio M. Matias; Michael Sperling; Ashwini D. Sharan; Chengyuan Wu; Kevin Hines; Mahdi Alizadeh

1242 **Detecting Seizure-onset Zones with Single-pulse Electrical Stimulation Using a CNN-transformer**
Price Withers; Camden Bibro; Ghassan Makhoul; Bruno Hidalgo Monroy Lerma; Anas Reda; Addison Cavender; Kate Wang; Graham Johnson; Chadd Funk; Shawniqua Williams Roberson; Sarah K. Bick; Victoria Morgan; Dario Englot

1243 **Quantitative Susceptibility Mapping of the Centromedian Nucleus**
Mohammed Rasheed; Mohammed Rasheed; Vivian Nguyen; Issam A. Awad; David Satzer

1244 **Predictors of Surgical Intervention Following Stereo-Electroencephalography in Drug-Resistant Epilepsy**
Tessa Harland; Sawyer Farmer; Caesar Ferrari; Michelle Terry; Matthew Cullen; Majorie Bunch; Matthew Adamo

1246 **Impact of Stereoelectroencephalography on Surgical Planning for Suspected Temporal Lobe Epilepsy**
Nikita Das; Landon Power; Melissa Owusu-Ansah; Aditya S. Katewa; Efstathios Kondylis; Juan Bulacio; Demitre Serletis; William E. Bingaman

1247 **Thalamic Connectivity Confers Endogenous Seizure Protective Networks Across Sleep Stages**
Ghassan Makhoul; Anas Reda; Bruno Hidalgo Monroy Lerma; Addison Cavender; Derek Doss; Graham Johnson; Price Withers; Kate Wang; Chadd Funk; Angela Crudele; Shawniqua Williams Roberson; Robert P. Naftel; Tyler J. Ball; Sarah K. Bick; Victoria Morgan, Dario Englot

1248 **Depth-dependent Microelectrode Recording Signatures Associated with Clinical Response to Centromedian Thalamic Deep Brain Stimulation for Epilepsy**
Mark R. Witcher; Kristine Ravina; Andrew Huang; David Beck

1249 **Epileptogenic Network Mapping Using Stereotactic EEG Predicts Surgical Outcomes in Temporal Lobectomy Patients**
Rupesh Chikara; Kevin Hines; Caio M. Matias; Ashwini D. Sharan; Michael Sperling; Chengyuan Wu; Mahdi Alizadeh

1250 **The Importance of Sentinel Electrodes in StereoEEG**
Adam Glaser; Diego Hernandez; Rohan Jha; Melissa M. Chua; Steven Tobochnik; John Rolston

1251 **Direct Cortical Stimulation of Human Language and Naming Networks**
Carmen Zavala; Oscar Woolnough; Nitin Tandon; Cihan M. Kadipasaoglu; Kathryn Snyder; Patrick Rollo

1252 **CFIR Guided Development of an Open Source Platform for Single Pulse Mapping in Surgical Epilepsy**
Bradley C. Lega

1253 **Continuous Neural Entrainment to Musical Rhythms within and Beyond the Human Auditory Cortex**
Rena Fa; Erica Flaten; Luis Antonio Franco Vergara; Nori Jacoby; Lucia Melloni; Luka Milosevic; Taufik Valiante

1254 **Cognitive Outcomes after Anterior Temporal Lobectomy vs. Laser Ablation in Temporal Lobe Epilepsy**
Nitin Tandon; Yosefa Modiano; Oscar Woolnough; Adeel Ilyas; Kathryn Snyder

1255 **Thalamocortical Connectivity Supports Language Processing**
Judah Huberman-Shlaes; Arka N. Mallela; Sirisha Nouduri; Bradford Mahon; Jiahao Chen; Julien Dirani; Raouf Belkhir; Jorge A. González-Martínez; Eliza Reedy; Mahmood Abdelkader; Arianna Damiani

1256 **The Impact of Duty Cycle Versus Responsive Neurostimulation on GTC in Generalized Epilepsy**
Anthony Patrizz; Jaiprakash Gurav; Maria Morkis; Nitin Tandon

1257 **Neuroinflammation During Epileptogenesis and Chronic Mesial Temporal Lobe Epilepsy**
Emma Tabor; Nicole Rodgers; Cora Helton; Antje Kroner-Milsch; Kunal Gupta

1258 **Phase-Dependent Effects of Hippocampal Electrical Stimulation on Verbal Memory Accuracy in Patients with Epilepsy**
Roberto Martin del Campo-Vera; Arthur Shao; Miguel Parra; Ryan Chung; Jonathon Cavaleri; Selena Zhang; Dinithi Senanayake; Charles Y. Liu; Janet Greenwood; Shawna Benard; Jonathan Kuo; Ryan McGinn; Spencer Kellis; Brian Lee

1259 **Biophysical Modeling of Resting-State MEG for Seizure Onset Zone Localization**
Himanshu Kumar; Guhan Seshadri; Richard Burgess; Andreas Alexopoulos; Hiroatsu Murakami; Balu Krishnan

1260 **Frequency-Dependent Effects of Hippocampal Electrical Stimulation on Memory Accuracy in Patients with Epilepsy**
Roberto Martin del Campo-Vera; Arthur Shao; Miguel Parra; Ryan Chung; Jonathon Cavaleri; Selena Zhang; Dinithi Senanayake; Charles Y. Liu; Janet Greenwood; Shawna Benard; Jonathan Kuo; Ryan McGinn; Spencer Kellis; Brian Lee

1261 **Multi-Center Validation of an FDG-PET Pipeline and Machine Learning Algorithm for Temporal Lobe Epilepsy Lateralization**
Jack Lam; Jiajie Mo; Raul Rodriguez Cruces; Ke Xie; Alex Ngo; Judy Chen; Ella Sahlas; Ian Goodall-Halliwell; Raluca Pana; Roy Dudley; Andrea Bernasconi; Neda Bernasconi; Kai Zhang; Boris Bernhardt

1262 **Optimized SEEG-Guided 3D Radiofrequency thermocoagulation for Hypothalamic Hamartoma–Related Epilepsy: A Systematic Review and Single-Arm Meta-Analysis**
Khushal Gupta; David J. Altschul; Emad N. Eskandar

1263 **Quantitative Deterministic Tractography Analysis of Laser Hemispherotomy: Evidence for the Bottleneck Hypothesis**
Ahmet F. Atik; Douglas Nordli III; David Satzer; Douglas Nordli; Peter Warnke

1264 **Resting-State Thalamocortical Connectivity Predicts the Timing of Thalamic Recruitment During Seizures**
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Aidan Dulaney; Sameer V. Rajesh; Haley Moore; Bradley Lega

1415 **Mesial Temporal–Cortical Activity During Real-Time Nicotine Use**
Jihye Ryu; Lisette Torres; Michael Ward; Uros Topolovic; Mauricio Vallejo; Ausaf A. Bari

1416 **Population Coding of Musical Pitch Perception**
Eric Cole; Marie Vallens; Hanlin Zhu; Kalman Katlowitz; Nisha Giridharan; Kyle Tsai; Elizabeth Mickiewicz; Melissa Franch; Ana Chavez; Sarah Heilbronner; Jay Hennig; Nicole Provenza; Eleonora Bartoli; Benjamin Hayden; Sameer Sheth

1417 **Adaptive Deep Brain Stimulation (DBS) Associated with Reduced Local Field Potential Power and Temporal Variability Compared to Continuous DBS**
Patrick Bi; Gabriel Friedman; Dominic A. Nistal; Jennie Davis; Andrew L. Ko

1418 **Intracranial Electrophysiology of the Heartbeat-Evoked Potential in Patients with Epilepsy**
Daniel D. Cummins; Raj Agarbattiwala; Varun Subramaniam; Jacqueline Overton Overton; Fedor Panov; Ignacio Saez; Allison Waters

1419 **High-Density ECoG–Based Visualization of Somatosensory Evoked Potentials for Central Sulcus Localization During Awake Craniotomy**
Chandra Prakash Swamy; Enes Arslan; Israt Tasnim; Giuseppe Pellizzer; Priscella Asman; Matthew Hall; İrem Yaren Uysal; Aytaç Guzel; Matthew Hoffman; Tatsuya Oishi; Eva Alden; Jonathon J. Parker; Tugrul Cem Unal; Terry C. Burns; Ian F. Parney; Altay Sencer; Sacit Karamürsel; Sujit S. Prabhu; Nuri Ince

1420 **Electrophysiological Correlates of Aging in the Prefrontal Cortex During Associative Episodic Memory**
Sruja J. Arya; Bradley C. Lega

1421 **The Speaking Island: from Local Architecture to Network Connectivity in Human Insular Speech Processing**
Panagiotis Kerezoudis; Michael A. Jensen; Bryan T. Klassen; Gregory A. Worrell; Nicholas Gregg; Nuri Ince; Jamie J. Van Gompel; Dora Hermes; Kai Miller

1422 **Electrode–Tissue Interface Dynamics Shape Spectral Features in Centromedian Thalamic RNS**
Mira Hasner; Nathaniel D. Sisterson; Saadi Ghatan; Robert M. Richardson

1423 **Mapping Cortical Hyperplasticity Networks in Glioblastoma to Predict Surgical Resistance and Residual Tumor Dynamics**
Shivi Kumar; Deirdre Richardson; Osama Elzafarany; Alyssa Davis

1424 **Orbitofrontal Network Connectivity and Oscillatory Dynamics Differentiate High Confidence Errors from High Confidence Correct Recognition**
Matthew Svalina; Aditya Kumar; Gavin Hoffman; Chiagoziem Anigbogu; Kevin Tyner; Rex Tien; Ross R. Moseley; Aaron Geller; Ueli Rutishauser; John Thompson; Daniel R. Kramer

1425 **Aperiodic Exponents Track Depression Symptom Severity**
Mark Libowitz; Wendy Sun; Rikki Rabinovich; Jingnan Du; Justin M. Campbell; Rhiannon Cowan; Niloufar Shahdoust; Alexander Price; Tyler Davis; Randy Buckner; Shervin Rahimpour; Brian J. Mickey; Elliot Smith; Ben Shofty

1426 **Whole-Brain Circadian Rhythmicity Found in Intracranial Human Neural Oscillations**
Jordan R. Altman; Timon Merk; Tomasz Fraczek; Raissa Mathura; Paul Steffan; Yewen Zhou; Layth Mattar; Taha Ismail; Melissa Franch; Katherine Kabotyanski; Kalman Katlowitz; Jay Hennig; Sarah Heilbronner; Eleonora Bartoli; Benjamin Hayden; Sameer A. Sheth

1427 **Globus Pallidus Internus Exhibits Prefrontal-Like Working Memory Dynamics During Intraoperative N-Back Performance in Parkinson's Disease**
Kate Dembny; Seth Koenig; Theoden Netoff; Alexander Herman; David P. Darrow

1428 **Directional Reward Prediction Error (RPE) Processing Across Distributed Cortical and Subcortical Networks Using the Effort-Expenditure for Rewards Task (EEFRT)**
Patrick Bi; Clairice Pearce; Miles Mahon; Sophia Lowe-Hines; Jeffrey G. Ojemann; Jeffrey Herron; Ben L. Grannan; Andrew L. Ko

1429 **Towards a Biomarker for Circuit Dysfunction in Neuropsychiatric Disease: Network Antagonism Measured within Individuals Using Precision Neuroimaging and Intracranial Electroencephalography**
Wendy Sun; Mark Libowitz; Daniel Feldman; Jingnan Du; Tyler Davis; Shervin Rahimpour; Elliot Smith; Jace King; Randy Buckner; Ben Shofty

1430 **Decoding Network Effects of Anterior Thalamic DBS with Intracranial EEG**
Stephen Jaffee; Amanda Merkley; Yuxin Guo; Mokshal Porwal; Matthew T. Perry; Barnabas Obeng-Gyasi; Dorian Kusyk; Pulkit Grover; Alexander Whiting

1500 **Forecasting Agitation in Severe Traumatic Brain Injury Through Temporal Facial Motion Dynamics**
Noah Lubin; Yindong Hua; Yunsoo Kim; Seyed Morsal Mosallami Aghili; Charles Mikell; Sima Mofakham

1501 **Exercise-induced Modulation of Subthalamic Activity and Intra-nuclear Connectivity in Parkinson's Disease**
Prajakta Joshi; Lara Shigo; Brittany Smith; Camilla Kilbane; Aratrik Guha; Amit Sinha; Kenneth Loparo; Angela Ridgel; Aasef G. Shaikh

1502 **Amplitude-Modulated, High-Frequency Peripheral Nerve Stimulation Elicits Natural Sensation after Amputation and Tetraplegia**
Roberto Peralta; Emily Graczyk; Abidemi Bolu Ajiboye

1503 **Electrophysiological Correlates of Dynamic Cycling in Parkinson's Disease**
Manya Raina; Prajakta Joshi; Lara Shigo; Brittany Smith; Camilla Kilbane; Aratrik Guha; Kenneth Loparo; Angela Ridgel; Aasef G. Shaikh

1504 **Maintained Peripheral Nerve Identity of Sural Nerve Fascicles Transplanted into the Substantia Nigra**
Ares Marlonsson; George Quintero; Greg Gerhardt; Craig van Horne

1505 **Consensus on the Best Practices for Implantable Vagal Nerve Stimulator Paired Neurorehabilitation for Upper Limb Function after Ischemic Stroke: Evidence from a Systematic Review and Meta-Analysis**
Inamullah Khan; Kai J. Miller; Muhib Khan; Rushna Ali

1506 **Integration of Somatosensory Percepts from Intracortical Microstimulation and Peripheral Nerve Stimulation**
Bronwyn Spilker; Preethisiri Bhat; William Memberg; A. Bolu Ajiboye; Emily Graczyk

1507 **Reconstructing Cerebral Lymphatic Drainage for Moderate-to-Severe Alzheimer's Disease: A Preliminary Clinical Study**
Jiheng Zhang; Li Cai; Haifeng Zhang; Ying Wang; Chenhao Zhou; Bingyou Yuan; Yan Chai; Tao Zhu; Xin Chen

1508 **Preserving the Retinal Neural Network via Electric Field Stimulation to Enable Whole-Eye Transplantation**
Darrin J. Lee; Priscilla Munguia; Hyung Shim; Pooyan Pahlavan; Rachel Warrington; Raymond Miramontes; Omid Sharifi; Weston Park; Ege Iseri; Timothy Silliman; Michael Bienkowski; Steven Walston; Dion Khodagholy; Gianluca Lazzi; Kimberly Gokoffski

1509 **Perceived Joint Position and Force Sensation from Proprioceptive Peripheral Nerve Stimulation**
Jonah Mudge; Rohit Bose; Emily Graczyk

1510 **Enhanced Recovery of Motor Function after a Spinal Cord Injury Using Epidural Photobiomodulation**
Benjamin Romanauski; Michael Moffitt; Michael Jenkins

1511 Motor Recovery Through Plasticity-Inducing Cortical Stimulation (MRPICS): Improvement in Function from a First-in-Human Fully-Implantable System
Jeffrey G. Ojemann; Steven C. Cramer; Adria Robert Gonzalez; Hanbin Cho; Maryam Bahadori-Nejad; Sarah D'Souza; Nicoli Wohns; Patrick Bi; Andrew L. Ko; Ben L. Grannan; Aaron Bunnell; Claire Creutzfeldt; Michael R. Levitt; Nicole Mazwi; Amy Anderson; Jonathan Fu; Eran Klein; Kurt Weaver; Chet Moritz; Jeffrey Herron

1512 Long-term Microelectrode Impedances and Evoked Sensory Percepts from Intracortical Microstimulation
Rohit Bose; Meron Abate; Brianna Hutchison; Kenya Alfaro; William Memberg; Tyler Johnson; Dawn Taylor; Jennifer A. Sweet; Abidemi B. Ajiboye; Emily Graczyk

1513 Cost-effectiveness of Vagus Nerve-Mediated Neuroimmune Modulation for the Treatment of Moderate-to-Severe Rheumatoid Arthritis (RA)
Ellen L. Air; Joshua M. Rosenow; Peter E. Konrad; Anne M Ryschon; Abigail Garner; Jan B. Pietzsch

1600 Salvage Gamma Knife Radiosurgery after Prior Non-radiation Interventions for Trigeminal Neuralgia
Venkatesh Shankar Madhugiri; Victor Goulenko; Neil Almeida; Robert A. Fenstermaker; Andrew J. Fabiano; Lindsay Lipinski; Dheerendra Prasad

1601 Microsurgical Punctate Midline Myelotomy for Intractable Visceral Cancer Pain: A Case Series and Technical Report
William Gibson; Ahmad Alhourani

1602 Evaluating the Efficacy of Sacral DRG Stimulation for Chronic Non-SurgicalBack Pain (NSBP) and Failed Back Surgery Syndrome (FBSS)
Nimrod Gozum; Aarti K. Jain; Gabriel Grullon; Austin B. Carpenter; Vishad V. Sukul

1603 Natural Language Processing for Prediction of Patient-Reported Outcomes in Spinal Cord Stimulation
Mahir Kabir; Theresa Medina; Sohail Daulat; Marisa Valletta; Julie Pilitsis

1604 TSNIP: Using Light to Achieve Selective Neural Inhibition in a Peripheral Nerve
Michael Moffitt; Aaron Skubal; Benjamin Romanauski; Constantinos Tsiptsis; David Green; Mohamed Elazab; Hope Zimmerman; Tina Vrabec; Michael Jenkins

1605 Cervical Stimulation for Refractory Facial Pain
Kristin Nosova; James Kelbert; Isabel L. Bauer; Robert W. Bina

1606 **Pain Program Building and Advocacy for Neuromodulation in Children**
Arturo Balaguer Townsend; Megan Votoupal; James M. Mossner; Angelica A. Vargas; Ravi D. Shah; Isabel Lehmann; Jason D. Ross; Jeffrey S. Raskin

1607 **Peripheral Field Nerve Stimulation for Trigeminal Neuropathic Pain: A Single-Institution Experience**
Daniela Stastna; Beth Robertson; Rushna Ali

1608 **Diffusion Tensor Imaging Reveals Spatially Specific Structure-Function Relationships in Chronic Spinal Cord Injury**
Jack Hennen; Shaghayegh Poursabbagh; Luke Musser; Kristin Gustafson; Yusuf Qwareeq; Rupesh Chikara; Kristofer Feeko; David Leong; Joseph Ifrach; Arbaz Momin; Stephanie Serva; Scott Faro; Islam Fayed; Caio M. Matias; Feroze Mohamed; James S. Harrop; Laura Krisa; Mahdi Alizadeh

1609 **Volumetric Morphometry Demonstrates Regional Atrophy Patterns and Structure-Function Relationships in Chronic Spinal Cord Injury**
Jack Hennen; Shaghayegh Poursabbagh; Luke Musser; Kristin Gustafson; Yusuf Qwareeq; Rupesh Chikara; Kristofer Feeko; David Leong; Joseph Ifrach; Arbaz Momin; Stephanie Serva; Scott Faro; Islam Fayed; Caio M. Matias; Feroze Mohamed; James S. Harrop; Laura Krisa; Mahdi Alizadeh

1610 **Baseline Structural Connectivity Is Associated with Pain Relief after Thalamic Deep Brain Stimulation in Neuropathic Facial Pain**
Evangelia Tsolaki; Wenxin Wei; Meskerem Tolossa; Jingwen Yao; Ausaf A. Bari

1611 **Paradoxical Pain Exacerbation in the First-In-Human Application of Cranially-Implanted Responsive Neurostimulation for Central Post-Stroke Pain: Lessons in off-Target Network Engagement**
Michael Ward; Mathew Zilberman; Punisa Lekovic; Evangelia Tsolaki; Jihye Ryu; Jacob Alderete; Diana Chang; Ausaf A. Bari

1612 **Determinants of Spinal Cord Stimulator Explantation in a Single-Center Cohort**
Ayush Mishra; Joseph Ifrach; Vama Shah; Islam Fayed

1613 **Radiomic Anterior Insular Alterations Correlate with Pain Severity, Duration, and Treatment Response in Chronic Trigeminal Neuropathic Pain**
Daniela Stastna; Rushna Ali

1614 **Connectomic Anatomy of Pain Deep Brain Stimulation Targets: Quantifying Network Overlap and Divergence**
James M. Mossner; Joshua M. Rosenow

1615 **The Impact of Biologically Effective Dose in Repeated Radiosurgery for Trigeminal Neuralgia**
Victor Goulenko; Venkatesh Shankar Madhugiri; Neil Almeida; Robert Plunkett; Dheerendra Prasad

1616 **Electromagnetic Intraoperative Navigation for Percutaneous Trigeminal Rhizotomy: Technical Feasibility, Safety and Long-Term Outcomes**
Gaurav Rastogi; Pawan Rastogi; Tejal Gupta

1617 **Precision Functional Mapping–Guided Noninvasive Stimulation of the Action-Mode Network Is Associated with Reduced Pain Severity**
Crina Peterson; Gabriella Hernandez; Matthew Maple; Damien Fair; Alexander Herman; David P. Darrow

1618 **Maternal and Fetal Outcomes of Spinal Cord Stimulation in Pregnancy: A Meta-Analysis**
Barbara Buccilli; Nuha Mohammed; Dina Mohammed; Kimiya Shahabi; Amna S. Hussein; Amir H. Faraji

1619 **Is Pocket Pain Still a Major Issue in Spinal Cord Stimulation?**
Julie G. Pilitsis; Matthew Scarsbrook; AnneLeigh Twer; Gage Tedford; Nehaw Sarmey; Martin Weinand

1620 **ACC-ofC Left Lateralisation of Optimal Fibre Density in ACC DBS for Neuropathic Pain**
Casey Rosso; John Eraifej; Jeremy Hanemaaijer; Alexander Green; Amir Divanbeighi Zand

1621 **Spatiotemporal Changes in Metabolic Activity Assessed by Dynamic PET in Chronic Spinal Cord Injury Using Graph-Based Functional Network**
Rupesh Chikara; Shaghayegh Poursabbagh; Luke Musser; Kristin Gustafson; Yusuf Qwareeq; Kristofer Feeko; David Leong; Arbaz Momin; Stephanie Serva; Scott Faro; Andrew Newberg; Caio M. Matias; Feroze Mohamed; James S. Harrop; Laura Krisa; Mahdi Alizade

1700 **Anatomic Correlates of Effort-expenditure for Reward Task in Patients Undergoing SEEG Monitoring**
Eliza Baird-Daniel; Patrick Bi; Clairice Pearce; Miles Mahon; Sophia Lowe-Hines; Jeffrey Herron; Ben L. Grannan; Jeffrey G. Ojemann; Andrew L. Ko

1701 **Thermodynamic Collapse of Maladaptive Psychiatric Attractor States: An Energy Landscape Framework for Network-Driven Psychiatric Neurosurgery**
Shivi Kumar; Deirdre Richardson; Alyssa Davis

1702 Network-Guided Identification of Hyperplastic Corticolimbic Circuits and Targeted Neuromodulation Strategies to Optimize Surgical and Psychiatric Outcomes in Treatment-Resistant Mood and Anxiety Disorders
Shivi Kumar; Deirdre Richardson; Osama Elzafarany; Katelyn Campos

1703 Pre-frontal Network Flexibility Indexes Major Depression Severity
Sameer V. Rajesh; Atefeh Ghazavi; Jiayang Xiao; Amirreza Alijanpourotaghsara; Sahil Chilukuri; John Myers; Raissa Mathura; Katherine Kabotyanski; Joshua Adkinson; Nicole Provenza; Kala Bailey; Wayne Goodman; Sameer A. Sheth; Nader Pouratian

1704 DBS for Psychiatric Disorders Decreases Suicide Risk
Kyle Tsai; Kalman A. Katlowitz; Nisha Giridharan; Michelle Avendano-Ortega; Grace Leslie Nitcheu; Vinayak Belavadi; Saipravallika Chamarthi; Raissa Mathura; Victoria Gates; Eric Cole; Eric Storch; Nidal Moukaddam; Sanjay Mathew; Nader Pouratian; Wayne Goodman; Nicole Provenza; Sameer Sheth

1705 Conserved Fiber Topography of the Anterior Limb of the Internal Capsule in Treatment-Resistant Psychiatric Patients
Reem El Jammal; Hideo Suzuki; Layth S. Mattar; Thomas Hamre; Sarah Soubra; Melissa Ryan; Raissa Mathura; Sanjay Mathew; Anusha Allawala; Eric Storch; Nora Vanegas-Arroyave; Garrett P. Banks; Nader Pouratian; Remi Patriat; Wayne Goodman; Nicole Provenza; Sameer Sheth; Eleonora Bartoli; Sarah Heilbronner

1706 Structural and Effective Connectivity Analysis after Failed Capsulotomy in Treatment-Resistant Obsessive-Compulsive Disorder
Liming Qiu; Gustavo Campos; Charles Palmer; Peter M. Lauro; Nikolaos Vardalakis; Wonkyung Choi; Andrew Chang; Min Jae Kim; Younghoon Nho; Robert Seilheimer; Katherine Scangos; Casey H. Halpern

1707 Individualized Tractography Reveals Prefrontal Connectivity Profiles Associated with Faster Clinical Response to DBS for OCD
Sarah Soubra; Reem El Jammal; Holden Bentley; Arnav Garyali; Thomas Hamre; Nisha Giridharan; Corey St. Romain; Kasra A. Mansourian; Grace Leslie Nitcheu; Vinayak Belavadi; Melissa Ryan; Hideo Suzuki; Nora Vanegas; Melissa Franch; Eleonora Bartoli; Eric Storch; Wayne Goodman; Nicole Provenza; Sameer Sheth; Sarah Heilbronner

1708 Corticostriatal Beta-Band Dynamics Underlying Reward Biases in Depression
Saipravallika Chamarthi; Jiayang Xiao; Raissa Mathura; Sanjay Mathew; Wayne Goodman; Nader Pouratian; Sarah Heilbronner; Sameer Sheth; Benjamin Hayden; Jay Hennig; Eleonora Bartoli; Nicole Provenza

1709 **White Matter Integrity Correlates to Strength of Response to Deep Brain Stimulation in Treatment-Resistant Obsessive-Compulsive Disorder**
Grace Leslie Nitcheu; Reem El-Jammal; Sarah Soubra; Thomas Hamre; Hideo Suzuki; Melissa Ryan; Vinayak Belavadi; Thomas Kutcher; Nora Vanegas-Arroyave; Eric Storch; Wayne Goodman; Sameer Sheth; Sarah Heilbronner; Nicole Provenza

1710 **Cortical-Level Neural Signatures of Cingulum Bundle and Forceps Minor Activation During Deep Brain Stimulation**
Andreas Seas; M. Sohail Noor; Ki Sueng Choi; Helen S. Mayberg; Cameron C. McIntyre ; Bryan Howell; Allison Waters

1711 **Nonlinear Axonal Dynamics Emerge During Bilateral Interleaved Stimulation of Forceps Minor**
Andreas Seas; Cameron C. McIntyre

1712 **Bilateral Frontopolar Cortex Disconnection Characterizes Non-Response to Laser Interstitial Thermal Therapy for Treatment-Resistant Obsessive-Compulsive Disorder: A Forward Differential Tractography Study**
Ahmet F. Atik; David Satzer; Maureen Lacy; Jon Grant; Peter C. Warnke

1713 **Transient Disruption of Bladder Control Linked to Periaqueductal Gray Fibers Following Deep Brain Stimulation for Psychiatric Disorders**
Thomas Hamre; Hideo Suzuki; Sarah Soubra; Reem El Jammal; Melissa Ryan; Sanjay Mathew; Jeffrey Herron; Nidal Moukaddam; Eric Storch; Nora Vanegas; Kara Marshall; Garrett P. Banks; Nader Pouratian; Wayne Goodman; Nicole Provenza; Sameer A. Sheth; Sarah Heilbronner

1714 **Anatomically Guided Reconstruction of the Anterior Limb of the Internal Capsule**
Ketan Mehta; Chiara Maffei; Anastasia Yendiki; Cameron C. McIntyre

1715 **Differential Response to DBS in Harm-avoidant vs. Disgust Subtypes of Obsessive-compulsive Disorder**
Thomas Hamre; Thomas Kutcher; Rick Hanish; Sarah Soubra; Holden Bentley; Kasra A. Mansourian; Grace Leslie Nitcheu; Vinayak Belavadi; Saipravallika Chamarthi; Zahra Jourahmad; Mohammed Hasen; Nisha Giridharan; Sarah Heilbronner; Eric Storch; Wayne Goodman; Nicole Provenza; Sameer A. Sheth

1716 **Investigating Effects of DBS on Ventral Capsule/Ventral Striatum Neural Activity During Deep Sleep**
Jeffrey Zhou; Timon Merk; Will Coon; Rick Hanish; Tomasz Fraczek; Sarah Soubra; Thomas Hamre; Vinayak Belavadi; Grace Leslie Nitcheu; Kasra A. Mansourian; Jonathan Bentley; Nidal Moukaddam; Mary Rose; Jeffrey Herron; Rahul Hingorani; Han Yi; Wayne Goodman; Sameer Sheth; Nicole Provenza

1717 **Interim Analysis of BITES Trial: from Human Accumbens Biomarker Discovery to Responsive Deep Brain Stimulation Outcomes for Loss of Control Eating**
Wonkyung Choi; Liming Qiu; Nishi Patel; Nikolaos Vardalakis; Min Jae Kim; Gustavo Campos; Andrew Chang; Robert Seilheimer; Gabriella Maze; Marie Kerr; Disha S. Joshi; Iahn Cajigas; Bijan Pesaran; Mario Cristancho; Kelly Allison; Katherine Scangos; Joshua Gold; Thomas Wadden; Casey H. Halpern

1718 **Symptomaticm and Functional Outcomes after Laser Anterior Capsulotomy for Severe, Treatment-Refractory Obsessive–Compulsive Disorder: A 47-Patient Cohort**
Ahmet F. Atik; Yasmine Alkhalid; David Satzer; Peter Warnke

1719 **Electrophysiological Correlates of Acute OCD Distress During Intraoperative VC/VS Deep Brain Stimulation**
Matteo Vissani; Ali Tafreshi; Clemens Neudorfer; Alan Bush; Sahand BabapoorFarrokhran; Pranav Nanda; Cristina Cusin; Robert M. Richardson

1720 **Personalized Network Biomarkers Predict Deep Brain Stimulation Response in Obsessive-Compulsive Disorder**
Nikolaos Vardalakis; Robert Seilheimer; Wonkyung Choi; Liming Qiu; Gustavo Campos; Younghoon Nho; Andrew Chang; Lily Brown; Desmond Oathes; Taneeta Ganguly; Mario Cristancho; Daniel Barbosa; Bijan Pesaran; Casey H. Halpern; Katherine Scangos

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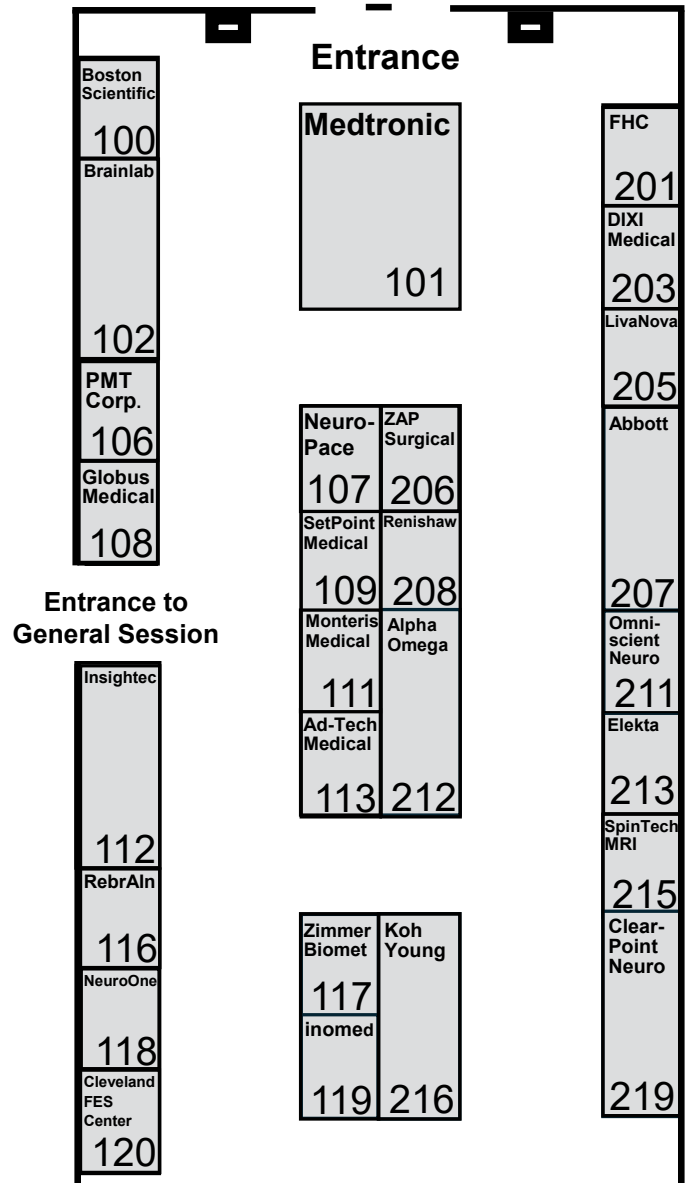
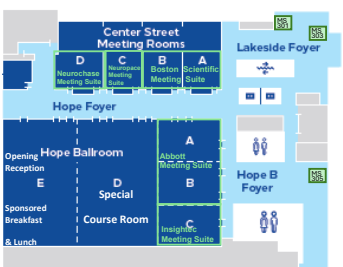
Per the ACCME Standards for Integrity and Independence in Accredited Continuing Education, all NON-CME sessions at the 2026 ASSFN Biennial Meeting will be held in a separate room from accredited continuing education.

Exhibit Hall Map



Floor 3



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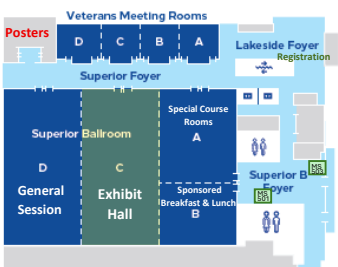

Exhibitor Information

EXHIBITOR	BOOTH#
Abbott	207
Abbott	Meeting Suite 305
Ad-Tech Medical	113
Alpha Omega	212
Boston Scientific	100
Boston Scientific	Meeting Suite Center Street A
Brainlab	102
ClearPoint Neuro	219
Clearpoint Neuro	Meeting Suite 303
Cleveland FES Center	120
DIXI Medical USA Corp	203
Elekta	213
Enspire	Meeting Suite 503
FHC Inc. / Neuralynx	201
Globus Medical	108
Inomed	119
Insightec	112
Koh Young Technology	216
LivaNova	205
Medtronic	101
Medtronic	Meeting Suite 301
Mobia	Meeting Suite 501
Monteris Medical	111
Neurochase	Meeting Suite Center Street D
NeuroPace	107
Neuropace	Meeting Suite Center Street C
NeuroOne Medical Technologies	118
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General Information

Exhibit Hall	Superior Ballroom C
Sunday, May 31	9:30 am-4:00 pm
Monday, June 1	9:00 am-3:30 pm
Tuesday, June 2	9:00-11:00 am

Registration	Lakeside Foyer
Saturday, May 30	6:30 am-4:00 pm
Sunday, May 31	6:00 am-6:00 pm
Monday, June 1	6:00 am-4:00 pm
Tuesday, June 2	6:00 am-12:00 pm

Opening Reception

Hope Ballroom E
Sunday, May 31 — 6:00-8:00 pm

Enjoy a delicious array of food and refreshments while reconnecting with colleagues and connecting with exhibiting companies at the Opening Reception. Each medical attendee registered for the meeting will receive one complimentary ticket.

Poster Session with Wine and Cheese

Veterans Meeting Room and Foyer
Monday, June 1 —3:15-5:15 pm

Enjoy a pre-dinner glass of wine during this uninterrupted time dedicated to viewing the scientific posters and take advantage of this opportunity to interact with the poster authors.

No Smoking Policy: Smoking is not permitted at any official ASSFN Biennial Meeting events. Hilton Cleveland Downtown is a non-smoking hotel.

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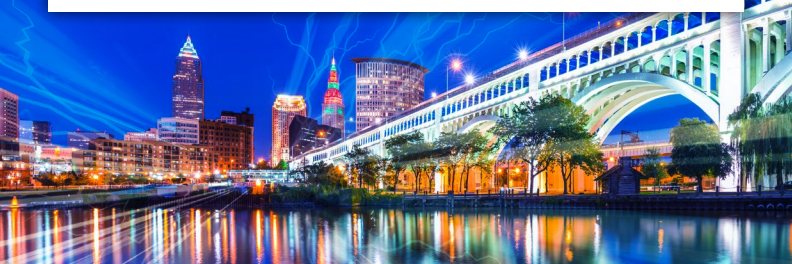

DEEP BRAIN STIMULATION

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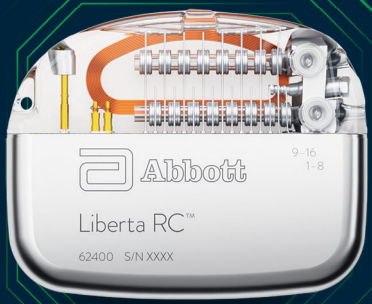

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*Upon implant of the Liberta RC™ DBS System when programmed with nominal stimulation settings as described in device Instructions for Use (IFU). Recommended recharge frequency and duration for U.S. competitor product described in their respective IFU or clinical studies, which may involve different patient populations and other variables. Not a head-to-head comparison of stimulation settings or clinical outcomes.

**Comparison is limited to the U.S. market only and is based on volume measurements of the following smallest IPG offerings: Abbott Liberta RC™ DBS System (13.6 cc), Boston Scientific‡ Vercise Genus‡ R16 (20.1 cc), and Medtronic‡ Percept‡ RC (13.77 cc). Sizing for the Liberta RC™ DBS IPG is determined using engineering model measurement(s), and methods to calculate size may vary among manufacturers.

1. Abbott. Liberta RC™ DBS System Recharging Comparison Claims Memo (MAT-2400043). 2024.
2. Abbott. Liberta RC™ Implantable Pulse Generator Clinician's Manual. Plano, TX. 2024.
3. Abbott. Liberta RC™ DBS System Size Comparison Claims Memo (MAT-2400042). 2025.

Abbott
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Rx Only
Brief Summary: Prior to using Abbott devices, please review the Clinician's Manual for a complete listing of indications, contraindications, warnings, precautions, potential adverse events, and directions for use. The system is intended to be used with leads and associated extensions that are compatible with the system.

MAT-2603800 v1.0
Item approved for U.S. use only.

Medtronic

Visualase™ V2
MRI-guided laser ablation system

Precision by design

Visualization you can trust when precision matters most

ASSFN 2026

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Not available in all markets.

Rx only. Refer to product instruction manual/package insert for instructions, warnings, precautions, and contraindications.

Indications: The Visualase™ V2 MRI-guided laser ablation system is a neurosurgical tool and is indicated for use to ablate, necrotize, or coagulate intracranial soft tissue, including brain structures (for example, brain tumor, radiation necrosis, and epileptic foci as identified by non-invasive and invasive neurodiagnostic testing, including imaging) through interstitial irradiation or thermal therapy in pediatrics and adults with 980 nm lasers. The intended patients are adults and pediatric patients from the age of 2 years and older.

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