assfn
American Society for Stereotactic and Functional Neurosurgery

2024 BIENNIAL MEETING

Nashville , TN • June 1-4, 2024

Forging Connections and Collaborations in Functional Neurosurgery and Beyond

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

Congress of Neurological Surgeons

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The American Society for Stereotactic and Functional Neurosurgery is excited to invite you to the 2024 ASSFN Biennial Meeting June 1-4, 2024, in Nashville, Tennessee.

Daily Plenary Sessions will explore thought-provoking topics with speakers working at the leading edge of technology. This year's Plenary Session topics include Innovation in Neurosurgery: Possibilities and Pitfalls; Collaborations in Music, Sports, and Neurosurgery; Exploring the Conscious and Unconscious Brain; Advances in Neural Interfaces and Unlocking the Brain.

In addition to the daily Plenary Sessions, consider attending parallel sessions to tailor your meeting experience to your specific needs. This year's Parallel Session topics are Big Data and AI; Pediatric Surgical Advances; The Evolution of Epilepsy Surgery; The Evolution of Movement Disorder Surgery; The Evolution of Psychiatric Neuromodulation; The Evolution of Pain Surgery; Connectomic Functional Neurosurgery and Bench to Bedside Advances.

The 2024 ASSFN Biennial Meeting offers an unparalleled opportunity to stay on the leading edge of stereotactic and functional neurosurgery, collaborate with colleagues, and engage with acclaimed faculty from across the globe—all while enjoying the beauty of Nashville — Music City!

MEETING DIRECTORS

Andre Machado
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Cleveland Clinic
Cleveland, Ohio

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ASSFN Vice-President
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Banner Health
Tucson, Arizona

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Medical University of South Carolina
Charleston, South Carolina

Nitin Tandon
Scientific Program Committee
University of Texas
Houston, Texas

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

SPEAKER BIOGRAPHIES

Gyorgy Buzsaki

György Buzsáki identified a hierarchical organization of brain oscillations and proposed how these rhythms support a 'brain syntax', for cognitive operations. His most influential work is known as the two-stage model of memory trace consolidation, with hippocampal sharp wave ripples serving as a transfer mechanism from hippocampus to the neocortex. Buzsák was honored with the 2011 Brain Prize, the 2020 Ralph W. Gerard Prize, the 2021 Goldman-Rakic Prize, and the 2014 Ariëns Kappers Medal.

Ed Boyden

Ed Boyden, MIT's Y. Eva Tan Professor in Neurotechnology and investigator for the Howard Hughes Medical Institute, holds professorial roles in Brain and Cognitive Sciences, Media Arts and Sciences, and Biological Engineering. He develops tools to analyze and repair complex biological systems, systematically unveiling the ground truth principles of biological function and implementing repairs. Boyden co-directs MIT's Center for Neurobiological Engineering and the K. Lisa Yang Center for Bionics. Among numerous accolades, he received the Wilhelm Exner Medal (2020), Croonian Medal (2019), Lennart Nilsson Award (2019), and Breakthrough Prize in Life Sciences (2016).

David Owens

David Owens serves on the faculty at Vanderbilt University's Owen Graduate School of Management where he directs the Executive Development Institute. Specializing in innovation and new product development, he is known as a dynamic speaker and is the recipient of numerous teaching awards. He provides consulting services for a wide range of clients around the world. His work has been featured in the New York Times, Wall Street Journal, London Guardian, San Jose Mercury News, and NPR's Marketplace.

Lee Thomas Miller and The Warren Brothers

Experience the magic of music as hit songwriters take the stage to perform their chart-toppers, sharing the incredible stories behind their creations and engaging with the audience for a one-of-a-kind musical journey!

Pete Weber

Pete Weber, the "Voice of the Predators," embarks on his 24th season with the Nashville Predators broadcast crew, serving as the primary radio play-by-play announcer and has called over 2,000 games. In January 2023, Weber secured his ninth Tennessee Sportscaster of the Year award from NSMA. Weber spent 15 seasons in Triple AAA baseball, was inducted into the Buffalo Baseball Hall of Fame in 1999, served as TV play-by-play for the NBA's Seattle SuperSonics, and was part of the Buffalo Bills' four Super Bowl appearances. He was inducted into the Buffalo Broadcasters Association Hall of Fame in 2017.

IN MEMORIAM

Ronald R. Tasker

Ronald R. (Ron) Tasker, 95, died peacefully on April 19, 2023, near his home of 50 years in Toronto, following a long and productive life. He was predeceased by his beloved wife Mary M. Tasker, née Craig, in 2003. Having a precocious mind, Ron entered UofT at 16 on a classics scholarship, where he studied Honour Science (Lt. Governor's Medal, 1948). This led to the lab of Dr. Charles Best, the co-discoverer of insulin. Dr. Best and Ron's mother counselled him to study medicine, where he won the 1950 Saddington Medal in Pathology, and the 1952 Cody Silver Medal. Ron studied neurosurgery and neurophysiology under the mentorship of Dr. E. Harry Botterell, and as a postdoctoral McLaughlin Traveling Fellow (1959-1961) in the U.S. and Europe. Ron was a classically trained scientist in the analog methods of early modern medicine. He pioneered clinical neurophysiology by adopting digital technology and instrumentation in the operating room, and by melding his training in neurophysiology and stereotactic neurosurgery. Ron joined the Division of Neurosurgery at Toronto General Hospital (TGH) in 1961 and was distinguished as a Markle Scholar (1961-1966). He traveled the world training neurosurgeons in the field of Stereotactic and Functional Neurosurgery and later became Head of Neurosurgery at TGH from 1979 to 1988. Ron taught in the Faculty of Medicine at UofT for more than 40 years, becoming Full Professor in 1978, and honoured with the title of Professor Emeritus – Neurosurgery in 2005, along with Officer of the Order of Canada. Ron was the recipient of Spiegel & Wycis Medal, World Society Stereotactic and Functional Neurosurgery (WSSFN), 1993. The R.R. Tasker Chair in Functional Neurosurgery was endowed in the Department of Surgery at UofT in 1999 to mark his many contributions to this field of medicine. Ron established a world-renowned reputation in clinical research as a brilliant surgeon, teacher, mentor, and professional role model, highly regarded for his clarity of thinking and plain spoken voice. Ron was a man of indisputable professional honesty and integrity, highly regarded as a gentle, courteous and approachable teacher. As a father, Ron was most relaxed out in the woods. He is survived by his children, Moira, James (Sandra Poole), Ronald (Bonnie Crook), and Alison, his four grandchildren, his sister Elizabeth White, née Tasker and his sister-in-law Sheila Waengler, née Craig.

HONORED GUESTS

Jerome Engel, Jr.

Jerome Engel, Jr. is Director of the Seizure Disorder Center, The Jonathan Sinay Distinguished Professor of Neurology, Neurobiology, and Psychiatry and Biobehavioral Sciences, and a member of the Brain Research Institute at UCLA. He received his undergraduate degree from Cornell University, his advanced degrees from Stanford University, and completed his training in neurology at Albert Einstein College of Medicine. Engel is the past president of the American Clinical Neurophysiology Society, the American Epilepsy Society, and the International League against Epilepsy. His bibliography lists over 1,300 publications and 39 books, including Epilepsy: A Comprehensive Textbook, Surgical Treatment of the Epilepsies, The Treatment of Epilepsy, and Seizures and Epilepsy. He is the principal investigator on two research grants from the National Institute of Neurological Disorders and Stroke. He has received numerous awards and honors, including a Fulbright Scholarship, a Guggenheim Fellowship, a Javits Award from the National Institutes of Health, and the Life-Time Achievement Award from the International League against Epilepsy.

George Ojemann

George Ojemann received his undergraduate and doctorate degrees at the University of Iowa College of Medicine. After completing his neurological surgery residency at the University of Washington medical centers, he began a distinguished career as a neurosurgeon and researcher specializing in epilepsy, joining the University of Washington faculty in 1966. He retired from clinical practice in 2005 but has continued this research and teaching. For his research, he received the 1984 Grass Prize from the Society of Neurological Surgeons, a Javitts award from the National Institute of Neurological Diseases and Stroke, an honorary Doctor of Science degree from the Medical College of Ohio in 1998, the Zulch Prize from the Max Planck Society and Gertrude Reemtsma Foundation in 2000, and the 2003 Cloward Medal of the Western Neurosurgical Society. He was a member of the Advisory Council of the National Institute of Neurological Disorders and Stroke from 1997-2000. He was on the editorial board of the Journal of Neurosurgery from 1985-92 (Chairman 1991-92), a Director of the American Board of Neurological Surgery from 1987-93 (Chairman 1992-93), a member of the Residency Review Committee for Neurosurgery from 1993-99, and on the Board of Director of the American Association of Neurological Surgeons from 1992-95. In 1991, his medical school honored him as a distinguished alumnus. He was President of the American Academy of Neurological Surgery in 1999-2000. Ojemann has spoken at medical conferences around the world, including many visiting professorships and named lectureships.

PROGRAM-AT-A-GLANCE

SATURDAY, JUNE 1

7:00 am-4:00 pm
Registration

8:30 am-12:00 pm
Special Course 1
Movement Disorder Surgery Fundamentals and Challenges

8:30 am-12:00 pm
Special Course 2
Epilepsy Surgery Fundamentals and Challenges

1:00-4:00 pm
Special Course 3
Mentorship for Medical Students

1:00-4:00 pm
Special Course 4
Business of Functional Neurosurgery and Choosing a Job for Residents for Residents and Fellows

1:00-4:00 pm
Special Course 5
Entrepreneurship and Innovation

SUNDAY, JUNE 2

6:00 am-6:00 pm
Registration

7:00-7:55 am
Breakfast Session 1
Neurorehabilitation

7:00-7:55 am
Breakfast Session 2
Personalized Neuromodulation Biomarkers

8:00-9:50 am
Plenary Session 1
Innovation in Neurosurgery: Possibilities and Pitfalls

9:30 am-4:30 pm
Exhibit Hall open

9:50-10:20 am
Beverage Break with Exhibitors

10:20 am-12:00 pm
Parallel Session
Big Data and AI

10:20 am-12:00 pm
Parallel Session
Pediatric Surgical Advances

12:00-12:55 pm
Non-CME Sponsored Lunch

1:00-3:00 pm
Plenary Session 2
Collaborations in Music, Sports, and Neurosurgery

3:00-3:30 pm
Beverage Break with Exhibitors

3:30-6:00 pm
Parallel Session
The Evolution of Movement Disorder Surgery

3:30-6:00 pm
Parallel Session
The Evolution of Epilepsy Surgery

6:00-8:00 pm
Opening Reception

MONDAY, JUNE 3

6:00 am-6:00 pm
Registration

7:00-7:55 am
Non-CME Sponsored Breakfast

8:00-9:30 am
Plenary Session 3
Exploring the Conscious and Unconscious Brain

8:30 am-5:30 pm
Exhibit Hall open

9:30-10:00 am
Beverage Break with Exhibitors

10:00 am-12:00 pm
Parallel Session
The Evolution of Psychiatric Neuromodulation

10:00 am-12:00 pm
Parallel Session
The Evolution of Pain Surgery

12:00-1:15 pm
Honored Guest Lunch
Dr. Jerome Engel Jr. and Dr. George Ojemann

1:15-2:45 pm
Plenary Session 4
Advances in Neural Interfaces

2:45-3:15 pm
Beverage Break with Exhibitors

3:15-5:15 pm
Poster Session with Wine and Cheese

5:00-6:00pm
ASSFN Business Meeting (Non-CME)

TUESDAY JUNE 4

6:00 am-6:00 pm
Registration

7:00-7:55 am
Non-CME Sponsored Breakfast

8:00-9:50am
Plenary Session 5
Unlocking the Brain

8:30-10:30 am
Exhibit Hall open

9:50-10:00 am
Awards Ceremony

10:00-10:30 am
Beverage Break with Exhibitors

10:30 am-12:15 pm
Parallel Session
Connectomic Functional Neurosurgery

10:30 am-12:15 pm
Parallel Session
Bench to Bedside Advances

12:15 pm
Meeting Adjourns

MEETING AGENDA

SATURDAY, JUNE 1, 2024

8:30 AM–12:00 PM

Special Course 1

Epilepsy Surgery Fundamentals and Challenges

$25 Residents/Fellows
$25 ASSFN Members and Nonmember Physicians

Course Directors: Kai Miller, Andrew Ko

Speakers: Taylor Abel, Arthur Cukiert, Eyiyemisi Damisah, Neena Maripudi, Jorge Gonzalez Martinez, Ian Mutchnick, Robert Naftel, Sanjay Patra, Fedor Panov, Demetri Serletis, Jon Willie, Chen Wu

Learning Objectives:

- Describe surgical options for deep seated epileptogenic lesions
- Describe surgical decision making for people with epilepsy with heterotopias
- Compare different surgical options for disconnection surgery

Part 1: Video Sessions

Patient with Difficult to Access Low Grade Lesion and Seizures: Discuss LITT vs. Resection
Eyiyemisi Damisah, Robert Naftel, Demetri Serletis

Patient with Extensive Heterotopia: Discussion of RNS at Heretopia vs. DBS/RNS Thalamus vs. VNS
Arthur Cukiert, Fedor Panov, Sanjay Patra

Patient with Drop Attacks with Thin CC: Open vs. LITT vs. Endoscopic Callosotomy
Taylor Abel, Neena Maripudi, Jorge Gonzalez Martinez

Part 2: Hands On Session

Robotic (Renshaw/ROSA) vs. StarFix sEEG with Demonstration of RF via sEEG electrodes
Kai Miller, Ian Mutchnick, Andrew Ko, Jon Willie, Chen Wu

Endoscope and LITT Demonstration of Callosotomy
Taylor Abel, Neena Maripudi, Jorge Gonzalez Martinez

8:30 AM–12:00 PM

Special Course 2

Movement Disorder Surgery Fundamentals and Challenges

$25 Residents/Fellows
$25 ASSFN Members and Nonmember Physicians

Course Directors: Rushna Ali, Alon Mogilner

Speakers: Rushna Ali, Reese Cosgrove, Mallory Hacker, Kathryn Holloway Peter Konrad, Paul Larson, Shervin Rahimpour, Richard Rammo, Abigail Rao, Ashwini Sharan

Learning Objectives:

- Apply advanced imaging techniques to optimize DBS therapy
- Discuss the differences between various approaches to DBS placement
- Discuss focused ultrasound as alternative to DBS therapy

Introduction
Rushna Ali, Alon Mogilner

Advanced Imaging and Connectomics for DBS Planning
Mallory Hacker, Shervin Rahimpour

Hands-on: Pitfalls and Principles of Planning (Waypoint Navigator, BrainLab, Medtronic, Clearpoint)
All Faculty

iMRI vs. ict vs. Robotic vs. MER Overview
Kathryn Holloway, Paul Larson, Richard Rammo

Hands-on: iMRI vs. iCT vs. Robotic
All Faculty

Focused Ultrasound vs DBS: When, Why, Who
Reese Cosgrove, Peter Konrad

Directional and Closed Loop DBS
Nandan Lad, Joshua Rosenow

Challenging Cases Discussion
Abigail Rao, Ashwini Sharan

1:00 –4:00 PM

Special Course 3

Business of Functional Neurosurgery and Choosing a Job for Residents for Residents and Fellows

Course Director: Ellen Air

Speakers: Rushna Ali, Wael Assad, Jason Gerrard, Kunal Gupta, Ryder Gwinn, Lara Kahn, Paul Larson, Michael Staudt, Nicole Toth

Learning Objectives:

- Describe strategies and challenges in looking for a first job in functional neurosurgery
- Identify how to build and grow a team for success
- Express nuances in making relationships in the community and growing referrals

Overview
Ellen Air

Exploring the Academic to Practice-Based Spectrum
Jason Gerrard, Ryder Gwinn

Prioritization and Job Fit
Rushna Ali

Negotiating the Package
Kunal Gupta

Building and Growing an Interdisciplinary Team
Michael Staudt

Infrastructure
Lora Kahn

Building an "Outside" Referral Base
Paul Larson

Who Bills and Where does the Money Go?
Ellen Air, Nicole Toth

Integrating Research without Breaking the Bank
Wael Asaad

SATURDAY, JUNE 1, 2024 *CONTINUED*

1:00 -4:00 PM

Special Course 4

Mentorship for Medical Students

Course Director: Nathan Rowland

Speakers: Nicole Bentley, Lola Chambless, Patrick Karas, Emily Levin, Danika Paulo

Learning Objectives:

- Explain the residency match interview and placement process
- Discuss the importance of research for a medical education within medical education
- Describe how to evaluate sub-internship options
- Discuss the neurosurgical professional landscape and the importance of networking through neurosurgery societies and organizations

Overview
Nathan Rowland

Evolution of the Neurosurgery Residency Match Process
Lola Chambless

The Role of Research for the Neurosurgical Candidate
Patrick Karas

Choosing the Ideal Sub-Internships
Nicole Bentley

Successful Interviewing Strategies for the Neurosurgery Match
Emily Levin

The Role of ASSFN in Supporting URM Neurosurgical Candidates: The AMPLify Model
Nathan Rowland

Organized Neurosurgery and Neurosurgical Societies
Danika Paulo

1:00 -4:00 PM

Special Course 5

Entrepreneurship and Innovation

$50 Resident/Fellows

$50 ASSFN and Nonmember Physicians

Course Directors: Shawn Glitner, Cameron McIntyre, Joseph Neimat, David Owens

Learning Objectives:

- Understand the complex interplay of ideation/prototyping/patent process/venture capital/regulatory structures/start-up launch
- Explore tools for bench to bedside development
- Identify key challenges to innovation

Add a Special Course to Your Registration

SUNDAY, JUNE 2, 2024

7:00 -7:55 AM

Breakfast Session 1

Neurorehabilitation

$55

Moderators: Andre Machado, David Darrow

Speakers: Ashley Dalrymple, Charles Liu, Uzma Samadani

Learning Objectives:

- Identify patient groups in whom surgical neurorehabilitation is appropriate
- Discuss central and peripheral neuromodulation targets for neurorehabilitation
- Compare methods of prosthesis control, central vs. peripheral

VNS for Neurorehabilitation
Charles Liu

Spinal Cord Stimulation for Spinal Cord Injury
Uzma Samadani

Spinal Cord Stimulation to Restore a Sense of Touch
Ashley Dalrymple

Panel Discussion
All Faculty

7:00 -7:55 AM

Breakfast Session 2

Personalized Neuromodulation Biomarkers

$55

Moderators: Shabbar Danish, Doris Wang

Speakers: Casey Halpern, Kara Johnson, Jennifer O'Malley

Learning Objectives:

- Describe advantages of personalized DBS over traditional approaches
- Compare and contrast electrographic biomarkers in the disorders discussed

SUNDAY, JUNE 2, 2024 *CONTINUED*

Personalized DBS for Binge-Eating Disorder
Casey Halpern

Personalized DBS for Parkinson's Disease
Kara Johnson

Personalized DBS for Dystonia
Jennifer O'Malley

Panel Discussion
All Faculty

8:00 –9:50 AM

Plenary Session 1

Innovation in Neurosurgery: Possibilities and Pitfalls
Moderators: Brian Lee, Jonathan Miller, Jospeh Neimat
Speakers: Christos Constantinidis, Leigh Hochberg, Andre Machado, Joseph Neimat, David Owens

Learning Objectives:

- Describe opportunities and challenges to successful innovation
- Discuss the successes and challenges faced in developing DBS for stroke
- Discuss recent technological advances in neural interfaces

Introduction
Joseph Neimat

Keynote on Innovation
David Owens

Brain Stimulation for Stroke
Andre Machado

Intermittent DBS: From Animal Studies to Application
Christos Constantinidis

Recent Innovations in Neural Interfaces
Leigh Hochberg

Roundtable Discussion
Christos Constantinidis, Leigh Hochberg, Andre Machado, Joseph Neimat, David Owens

9:50–10:20 AM

Beverage Break with Exhibitors

10:20 AM–12:00 PM

Parallel Session 1

Big Data and AI
Moderators: Pierre D'Haese, Chen Wu
Speakers: Erin Conrad, Benoit Dawant, Kai Miller, Peter Konrad, Pierre D'Haese

Learning Objectives:

- Identify the advantages and limitations of artificial intelligence and big data approaches in improving clinical practice
- Recognize the current applications of artificial intelligence in movement disorder and epilepsy surgery
- Discuss potential future applications of artificial intelligence in movement disorder and epilepsy surgery

Understanding Complex Brain Networks with AI
Kai Miller

Big Data and AI in Movement Disorders
Benoit Dawant, Pierre D'Haese, Peter Konrad

AI Applications in Intracranial EEG for Epilepsy
Erin Conrad

Open Papers

10:20 AM–12:00PM

Parallel Session 2

Pediatric Surgical Advances
Moderators: Taylor Abel, Elizabeth Tyler Kabara
Speakers: Iahn Cajigas Gonzalez, Robert Naftel, Elsa Arrocho Quinones, Meena Vessell

Learning Objectives:

- Identify the latest surgical treatments for pediatric movement disorders
- Identify the latest surgical treatments for pediatric epilepsy

RNS in the Pediatric Population
Meena Vessel

Cerebellar Deep Nuclei DBS for Acquired Dystonia's in Children
Iahn Cajigas Gonzalez

Laser Ablation for Pediatric Epilepsies
Elsa Arrocho Quinones

Multimodal Approaches to Pediatric Spasticity
Robert Naftel

Open Papers

1:00–3:00 PM

Plenary Session 2

Collaboration in Music, Sports, and Neurosurgery
Moderators: Dario Englot, Joseph Neimat
Speakers: Andres Lozano, Andre Machado, Lee Thomas Miller, Richard Pierce, The Warren Brothers, Peter Weber

Learning Objectives:

- Identify similarities in the comparative approaches in neurosurgery, the music industry, and sports
- Discuss strategies for improving cohesiveness in a team-based approach

Introduction of Musicians
Joseph Neimat

Collaboration in Music: Performance and Discussion
Lee Thomas Miller, The Warren Brothers

Introduction of Pete Weber
Dario Englot, Richard Pierce

Collaborations in Sports: A Conversation with a Sportscaster and Patient
Dario Englot, Richard Pierce, Pete Weber

Honoring Ronald R. Tasker
Andres Lozano

Introduction of ASSFN President
Joseph Neimat

Presidential Address
Andre Machado

3:00–3:30 PM

Beverage Break with Exhibitors

SUNDAY, JUNE 2, 2024 *CONTINUED*

3:30– 6:00 PM

Parallel Session 3

The Evolution of Epilepsy Surgery

Moderators: Sharona Ben-Haim, Guy McKhann

Speakers: David Burdette, Kate Davis, Jerome Engel Jr., Dario Englot, Robert Gross, Vibhor Krishna

Learning Objectives:

- Explain how standarization may aid the epilepsy surgery workflow
- Describe potential benefits of epilepsy surgery beyond seizure freedom
- Discuss evolving novel therapies in the field of epilepsy surgery

Standardization of the Epilepsy Surgical Evaluation
Kate Davis

Measuring Benefit Beyond Engel Outcome
Dario Englot

Evolving from Resection to Ablation
Robert Gross

Thalamic Neuromodulation for Primary Generalized Epilepsy
David Burdette

FUS as a Novel Tool for Epilepsy
Vibhor Krishna

Panel Discussion
All Faculty

Open Papers

3:30– 6:00 PM

Parallel Session 4

The Evolution of Movement Disorder Surgery

Moderators: Nicole Bentley, Michael Okun

Speakers: Kara Beasley, Kelly Foote, Ayse Gunduz, Travis Hassell, Paul Larson

Learning Objectives:

- Describe the latest developments and remaining barriers in gene therapy for movement disorders
- Discuss the advances and challenges related to closed loop DBS for Parkinson's Disease

Bilateral FUS vs. DBS for Tremor
Kara Beasley

Gene Therapy of Movement Disorders
Paul Larson

Advanced Stimulation Paradigms
Travis Hassell

Value of Closed Loop: Clinician's Perspective
Kelly Foote

Value of Closed Loop: Engineer's Perspective
Ayse Gunduz

Panel Discussion
All Faculty

Open Papers

6:00–8:00 PM

Opening Reception

Enjoy the start of the Biennial Meeting at the Opening Reception at the Grand Hyatt Nashville Hotel. Enjoy time reconnecting with your colleagues and friends over hors d'oeuvres and beverages.

Save when you register by May 3

MEETING AGENDA

MONDAY, JUNE 3, 2024

8:00–9:30 AM

Plenary Session 3

Exploring the Conscious and Unconscious Brain

Moderators: Julie Pilitsis, Konstantin Slavin

Speakers: Hal Blumenfeld, Gyorgy Buzsaki, Nitin Tandon, Ziv Williams

Learning Objectives:

- Describe how the brain's neural circuits support the structure of consciousness
- Discuss potential neuromodulation targets and strategies for restoration of consciousness

Introduction
Nitin Tandon

Unlocking the Neural Systems of the Brain
Gyorgy Buzsaki

Theory of Mind and Social Cognition
Ziv Williams

Neuromodulation for Restoration of Consciousness
Hal Blumenfeld

Discussion

9:30–10:00 AM

Beverage Break with Exhibitors

10:00 AM–12:00 PM

Parallel Session 5

The Evolution of Psychiatric Neuromodulation

Moderators: Sarah Bick, Nader Pouratian

Speakers: Kelly Bijanki, Darin Dougherty, Helen Mayberg, Ali Rezai, Sameer Sheth

Learning Objectives:

- Describe the role of physiological biomarkers in psychiatric neurosurgery
- Discuss current approaches to targeting, trial design, and outcome measures in clinical trials of DBS for depression
- Discuss strategies for increasing interdisciplinary engagement in psychiatric neurosurgery

Physiological Biomarkers in Psychiatric Neurosurgery
Kelly Bijanki, Sameer Sheth

Clinical Trials in DBS for Depression: State of the Field
Helen Mayberg

Addiction as a Novel Indication for DBS
Ali Rezai

Interdisciplinary Engagement in Psychiatric Neurosurgery
Darin Dougherty

Open Papers

10:00 AM–12:00 PM

Parallel Session 6

The Evolution of Pain Surgery

Moderators: Ahmed Raslan, Jennifer Sweet

Speakers: Jeff Elias, Erika Peterson, Sridevi Sarma, Michael Staudt

Learning Objectives:

- Identify the application of high intensity focused ultrasound for pain management
- Discuss the relative advantages of spinal cord stimulation technology paradigms
- Describe the mechanisms of peripheral neuromodulation

Advances in Peripheral Nerve Stimulation
Sridevi Darma

Choosing the Right Spinal Neuromodulation Technology
Erika Peterson

Advances in Intraoperative Monitoring for Spinal Cord Stimulation
Michael Staudt

New Directions in Intracranial Ablation for Pain
Jeff Elias

Open papers

12:00–1:15 PM

Honored Guest Lunch

Jerome Engel Jr., George Ojemann

1:15–2:45 PM

Plenary Session 4

Advances in Neural Interfaces

Moderators: Parag Patil, Nitin Tandon

Speakers: Jennifer Blumenthal-Barby, Edward Chang, Timothy Lucas

Learning Objectives:

- Discuss similarities and differences in BCI approaches for language and somatosensation
- Describe unique ethical considerations associated with brain computer interfaces

BCI for Speech
Edward Chang

Sensory BCI
Timothy Lucas

Neural Devices and Ethical Implications
Jennifer Blumenthal-Barby

Ethics Roundtable Discussion
Jennifer Blumenthal-Barby, Edward Chang, Timothy Lucas, Parag Patil, Nitin Tandon

2:45–3:15 PM

Beverage Break with Exhibitors

3:15–5:15 PM

Poster Session with Wine & Cheese

Moderators: Ausaf Bari, Tyler Ball, Zelma Kiss, Ajmal Zemmar

5:00–6:00 PM

ASSFN Business Meeting

Presiding Officer: Andre Machado

TUESDAY, JUNE 4, 2024

8:00–10:00 AM

Plenary Session 5

Unlocking The Brain

Moderators: Jason Gerrard, Mark Richardson

Speakers: Ed Boyden, Mike Fox, Kullervo Hynynen, Michael Okun

Learning Objectives:

- Explain the concept of temporal interference and how it can influence brain circuits
- Discuss the past development and future directions of ultrasound therapies
- Describe special considerations in trials for invasive vs. noninvasive therapies

Introduction
Michael Okun

Noninvasive Brain Stimulation through Temporal Interference
Ed Boyden

Development and Future Directions of Focused Ultrasound
Kullervo Hynynen

Non-Invasive Neuromodulation
Mike Fox

Group Discussion
All Faculty

Awards Ceremony

10:00–10:30 AM

Beverage Break with Exhibitors

10:30 AM–12:15 PM

Parallel Session 7

Connectomic Functional Neurosurgery

Moderators: Bornali Kundu, Cameron McIntyre

Speakers: Cameron McIntyre, Vicky Morgan, Nader Pouratian, Chen Wu

Learning Objectives:

- Describe techniques for modelling connectivity
- Discuss connectomic approaches to guide DBS planning
- Describe how connectivity analysis might improve epilepsy surgery

Introduction and Modeling Methods
Cameron McIntyre

Applications in Parkinson's Disease
Chen Wu

Applications in Psychiatric Disorders
Nader Pouratian

Applications in Epilepsy
Vicky Morgan

Round Table Discussion

10:30 AM–12:00 PM

Parallel Session 8

Bench to Bedside Advances

Moderators: Clement Hamani, Suneil Kalia

Speakers: Lorraine Kalia, Michael Kaplitt, Nir Lipsman, Vivian Tabar

Learning Objectives:

- Describe current challenges in developing molecular therapeutics that are disease modifying - how to move from the lab to the clinic
- Identify technical constraints of using focused ultrasound for spatial and temporal delivery of therapeutics in the brain
- Evaluate and discuss various options of delivering therapeutics in the current bench to bedside pipeline

Molecular Therapies- Early Pipeline
Lorraine Kalia

Delivery of Molecular Therapeutics
Nir Lipsman

Stem Cells Translation Pipeline
Vivian Tabar

Gene Transfer: Animal Models to Human Studies
Michael Kaplitt

Questions

GENERAL INFORMATION

Meeting Location

Grand Hyatt Nashville
1000 Broadway
Nashville, TN 37203
(615) 622-1234

Hotel Reservations

To book a reservation at the Grand Hyatt Nashville Hotel at the discounted group rate of $329 per night, please go to https://www.mcievents.com/assfn2024/ or call (972) 349-5539 or email us at assfncns@mcievents.com and reference the "2024 ASSFN Biennial Meeting". The group rate is available until May 6, 2024, subject to availability. Cancellations made within 72 hours prior to arrival will result in forfeiture of your one-night room and tax deposit.

Deposit

Our official ASSFN Biennial Housing provider will not be taking a deposit at the time that your reservation is made. When booking your hotel, a credit card is required to secure your reservation and will be sent to the hotel along with your reservation on May 6, 2024. The hotel will charge a deposit on or after May 6, 2024. The hotel will retain your deposit in the event of a cancellation within 72 hours of arrival or no-show. You will also be required to provide a credit card upon check-in.

Changes and Cancellations

Starting May 6, 2024, changes and cancellations must be made directly with the hotel. Cancellations made within 72 hours prior to arrival will result in forfeiture of your one-night room and tax deposit.

Meeting Registration

Register today using one of these four methods:
Online: https://www.mcievents.com/assfn2024
Fax: 972-349-7715
Phone: 972-349-5539

Mail: ASSFN Registration Center
6100 W. Plano Parkway, Suite 3500
Plano, TX 75093

The ASSFN Registration Center is not responsible for faxes or emails not received due to circumstances beyond their control.

What's Included in the Registration Fee?

Medical registration includes the following:

- Daily Continental Breakfasts
- Daily Beverage Breaks
- Daily Plenary and Parallel Sessions
- Entrance to the Exhibit Hall
- One ticket to Sunday Opening Reception
- Admittance to the Poster Session with Wine & Cheese on Monday

Registration Cancellation/Refund Policy

All refund requests must be received in writing by May 3, 2024.
Requests accepted via:

Email: assfncns@mcievents.com
Fax: 972-349-7715

Mail: ASSFN Registration Center
6100 W. Plano Parkway, Suite 3500
Plano, TX 75093

Cancellations made before May 3, 2024
Receive a full refund less $100 processing fee. Pre-meeting course registration fees will be refunded in full until this date.
Cancellations made after May 3, 2024, and no-shows:
No refunds will be issued after this date for registration and pre-meeting courses regardless of cause.

Americans with Disabilities Act/Special Needs and Requests

The ASSFN wishes to take the necessary steps to ensure that no individual with a disability is excluded, denied services, segregated or otherwise treated differently than any other individual because of the absence of auxiliary aids and services. Please let us know if, under the ADA, you require special accommodations or services in order to attend the ASSFN Biennial Meeting.

Your requirements should be sent directly to the ASSFN Registration Center at: assfncns@mcievents.com, or call 972-349-5539. Please provide any requests at least 30 days prior to the Biennial Meeting to guarantee accommodation.

REGISTRATION FEES

PHYSICIANS	REGISTER BY MAY 3	REGISTER AFTER MAY 3
ASSFN Member Physician (includes foreign ESSFN/WSSFN members-subject to verification)	$750	$850
Non-Member Physician	$845	$945
Join ASSFN and Register (Includes $300 membership application fee)	$1,050	$1,150
NON-PHYSICIANS: PhD, RN/NP/PA		
Undergraduate,/Graduate Student/Medical Students	Complimentary	$50
ASSFN Associate Member, Non-Physician (PhD, RN/NP/PA)	$375	$475
Non-Member Associate, Non-Physician (PhD, RN/NP/PA)	$525	$625
Non-Member Associate, Non-Physician, Join ASSFN and Register (PhD, RN/NP/PA) (Includes $160 Membership Application Fee)	$535	$635
RESIDENTS/FELLOWS		
Resident/Fellow/Post-doctorates (With Letter from Program Director)	$325	$425

ADDITIONAL COURSES	FEE
Saturday, June 1, 8:30 am-12:00 pm **Special Course 1: Movement Disorder Surgery Fundamentals and Challenges**	$25- Residents/Fellow $25- ASSFN Members/ Non-Member Physicians
Saturday, June 1, 8:30 am-12:00 pm **Special Course 2: Epilepsy Surgery Fundamentals and Challenges**	$25- Residents/Fellow $25- ASSFN Members/ Non-Member Physicians
Saturday, June 1, 1:00-4:00 pm **Special Course 3: Mentorship for Medical Students**	Complimentary- Medical Students Complimentary- ASSFN Members/ Non-Member Physicians
Saturday, June 1, 1:00-4:00 pm **Special Course 4: Business of Functional Neurosurgery and Choosing a Job for Residents** (for Resident and Fellows)	Complimentary- Residents/Fellow Complimentary- ASSFN Members/ Non-Member Physicians
Saturday, June 1, 1:00-4:00 pm **Special Course 5: Entrepreneurship and Innovation**	$50- Residents/Fellow $50- ASSFN Members/ Non-Member Physicians
Sunday, June 2, 7:00-7:55 am **Breakfast Session 1: Neurorehabilitation**	$55- Residents/Fellow $55- ASSFN Members/ Non-Member Physicians
Sunday, June 2, 7:00-7:55 am **Breakfast Session 2: Personalized Neuromodulation Biomarkers**	$55- Residents/Fellow $55- ASSFN Members/ Non-Member Physicians

ACCREDITATION

Accreditation
This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the Congress of Neurological Surgeons and the American Society for Stereotactic and Functional Neurosurgery. The Congress of Neurological Surgeons is accredited by the ACCME to provide continuing medical education for physicians.

AMA Credit Designation Statement
The CNS designates this live activity for a maximum of 26.50 *AMA PRA Category 1 Credits*™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

CME Credit
*A maximum of 20.25 *AMA PRA Category 1 Credits*™ may be earned for Scientific Sessions only.

Additional CME credits can be earned by attending the optional Saturday half day courses (6.00 credits).

Physician Assistant/Physician Extender: Attendees will receive credits for attendance at the general Scientific Sessions and for any optional events attended. Each physician assistant/physician extender should contact his or her individual membership association and certification board to determine the requirements for accepting credits. All attendees will receive a Certificate of Attendance.

AMA Direct Credit for Preparing Poster Presentation(s)
Physicians may claim *AMA PRA Category 1 Credits*™ directly from the AMA for preparing a poster presentation, which is also includes the published abstracts. Physicians may claim them on their AMA PRA certificate application or apply directly to the AMA for an *AMA PRA Category 1 Credits*™ certificate. Please visit the AMA Ed Hub for more information.

Non-CME Sessions
Per the ACCME Standards for Integrity and Independence in Accredited Continuing Education, all NON-CME sessions at the 2024 ASSFN Biennial Meeting will be held in a separate room from accredited continuing education.

INDUSTRY INFORMATION

Exhibit Hall Hours

Sunday, June 2: 9:30 am-4:30 pm
Monday, June 3: 8:30 am-5:30 pm
Tuesday, June 4: 8:30-10:30 am

Beverage Breaks in the Exhibit Hall

Sunday, June 2
9:50-10:20 am
3:00-3:30pm

Monday, June 3
9:30-10:00 am
2:45-3:15 pm

Tuesday, June 4
10:00-10:30 am

Industry Sponsored Symposia

Sponsored Breakfast Symposia
Monday, June 3 7:00-7:55 am
Tuesday, June 4 7:00-7:55 am
Sponsored by: Abbott and Insightec

Sponsored Lunch Symposia
Sunday, June 2 12:00-12:55 pm
Sponsored by: Medtronic and Boston Scientific

Exhibitors *as of January 2024*

- Abbott
- Ad-Tech Medical Instrument Corporation
- Alpha Omega USA
- Boston Scientific
- Brainlab
- ClearPoint Neuro
- DIXI Medical USA Corporation
- FHC, Inc. / Neuralynx
- Globus Medical
- inomed Inc.
- Insightec
- Medtronic
- Monteris Medical
- NeuroPace, Inc.
- PMT Corporation
- Renishaw Healthcare, Inc.
- Zimmer Biomet

American Society for Stereotactic
and Functional Neurosurgery
10 N. Martingale Road, Suite 190
Schaumburg, IL 60173-2294

Congress of Neurological Surgeons