



# PRELIMINARY PROGRAM



2025 ACNS ANNUAL MEETING AND COURSES

**BALTIMORE**



BALTIMORE MARRIOTT WATERFRONT

FEBRUARY 27-MARCH 2

# ABOUT THE AMERICAN CLINICAL NEUROPHYSIOLOGY SOCIETY (ACNS)

ACNS' mission is to serve patients and society by empowering members to advance the science, practice and profession of clinical neurophysiology. This mission serves to fulfill the vision to optimize neurologic health through understanding of nervous system function

Founded in 1946 and originally named the American Electroencephalographic Society (AEEGS), ACNS is the major professional organization in the United States devoted to the establishment and maintenance of standards of professional excellence in clinical neurophysiology in the practice of neurology, neurosurgery and psychiatry. ACNS members utilize neurophysiology techniques in the diagnosis and management of patients with disorders of the nervous system and in research examining the function of the nervous system in health and disease.

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## ACNS EXECUTIVE OFFICE

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# ANNUAL MEETING & COURSES PLANNING COMMITTEES

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Monica P Islam, MD, FACNS  
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### Ex-Officio

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Monica P. Islam, MD, FACNS  
Ruple S. Laughlin, MD, FACNS  
Lynn Liu, MD, MS (HPE), FACNS



# GENERAL MEETING INFORMATION

## ABOUT THE ANNUAL MEETING & COURSES

The ACNS Annual Meeting & Courses are the flagship educational programs designed to provide a solid review of the fundamentals and the latest scientific advances in both “central” and “peripheral” clinical neurophysiology.

Presentations at the Annual Meeting & Courses are given by leading experts in the field and have value for healthcare professionals who utilize clinical neurophysiology. Sessions include symposia, workshops, and courses, featuring didactic lectures, expert panels, debates, and interactive formats. Poster presentations at the Annual Meeting highlight the latest work conducted at clinical neurophysiology centers around the country.

The meeting also features a number of opportunities for networking, including a Professional Development Mentorship Program in which residents and fellow applicants are paired with senior ACNS members and provided an opportunity to connect.

### REGISTRATION RATES

	Advanced Registration On or before February 16, 2025		On-Site Registration	
	Full Registration	Day Passes	Full Registration	Day Passes
ACNS Members*	\$675	\$405	\$725	\$435
Non-Members*	\$985	\$590	\$1,060	\$635
Junior*, Tech, RRC Members*	\$360	\$215	\$390	\$235
Non-Member Trainees, Tech, RRC*	\$570	\$340	\$645	\$390

\*RRC = Reduced Rate Country. List of countries who qualify for reduced rates as defined by the World Bank.

\*ITP discount reflected in cart

### Registration rates above include:

- Access to over 45 scientific program sessions, workshops and courses, featuring intermediate and the latest advances in clinical neurophysiology;
- A variety of opportunities to connect with leading experts in the field such as panel discussions, Special Interest Group Meet-Ups, and networking events;
- Access to the Exhibit & Poster Hall including the Welcome Reception on Thursday, February 27; and
- Breakfast and coffee breaks Thursday – Sunday and lunch Saturday and Sunday.

### IMPORTANT DATES

Poster Abstract Submission Open	October 1, 2024
Advance Registration Open	October 21, 2024
Poster Abstract Submission Deadline	November 17, 2024
Poster Abstract Decision Notification	December 16, 2024
Housing Deadline	February 5, 2025
Advance Registration Deadline	February 16, 2025
Registration Cancellation Deadline	February 18, 2025
Courses Handout Website Open	February 24, 2025
CME Certificate Program Opens (pre-registered delegates)	February 27, 2025
CME Certificate Program Opens (delegates registering onsite)	March 10, 2025
CME Certificate Claim Deadline	March 31, 2025
Courses Handout Website Closes	May 1, 2025

### HEADQUARTERS HOTEL

Baltimore Marriott Waterfront  
700 Aliceanna Street  
Baltimore, Maryland

### GROUP REGISTRATION RATE

\$239/night single/double occupancy

Reservations at the group rate will be accepted until February 4, 2025, OR until the block is full, whichever occurs first. Reservations may be made on a space-available basis after the housing deadline of February 5 at the hotel’s prevailing rates. ACNS recommends booking housing as soon as your travel plans have been confirmed.

The ACNS Annual Meeting & Courses website is the ONLY ACNS-authorized system for registering for the conference or booking guest rooms at the Baltimore Marriott Waterfront. Should you be contacted by any group claiming to represent ACNS and urging you to book hotel rooms or register for the meeting through their services (especially at “lower” rates) please be aware that ACNS does not work through or contract with any such groups.

# CONTINUING MEDICAL EDUCATION (CME) INFORMATION

## MEETING DESCRIPTION

The ACNS Annual Meeting & Courses are designed to provide a solid review of the fundamentals and the latest scientific advances in both “central” and “peripheral” clinical neurophysiology. Presentations at the Annual Meeting & Courses are given by leading experts in the field and have value for health care professionals who utilize clinical neurophysiology. Sessions include symposia, workshops and courses featuring didactic lectures, expert panels, debates and interactive formats. Poster presentations at the Annual Meeting highlight the latest work conducted at clinical neurophysiology centers around the country.

## TARGET AUDIENCE

The Society's educational activities are directed to clinical neurophysiologists, neurologists, psychiatrists, physiatrists, neurosurgeons, trainees in these disciplines and other physicians and researchers who utilize clinical neurophysiological techniques and knowledge in the diagnosis and management of patients with disorders of the nervous system.

## LEARNING OBJECTIVES

At the end of the Annual Meeting & Courses, the participant will be able to:

- Describe the indications for use of clinical neurophysiology techniques in diagnosis of disorders of the nervous system;
- Incorporate new neurophysiology procedures and technological advances into his/her own clinical practice; and
- Perform and interpret a broad range of clinical neurophysiology procedures, and integrate the results of these tests into comprehensive patient management plans;
- Discuss recent advances in electroencephalography, evoked potentials, ALS, magnetoencephalography, practice technologies, nerve conduction studies and other clinical neurophysiology techniques; and
- Apply advances in clinical neurophysiology techniques to improve the diagnosis of neurologic disorders.

## ACCREDITATION STATEMENT

ACNS is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

## CREDIT DESIGNATION

ACNS designates the Annual Meeting & Courses for a maximum 28 *AMA PRA Category I Credit(s)*<sup>™</sup>. Physicians should claim only credit commensurate with the extent of their participation in the activity.

## ABPN SELF-ASSESSMENT CME

ACNS is in the process of applying to ABPN to allow attendees to claim Self-Assessment (SA) CME credits at the 2025 Annual Meeting & Courses. More information will be made available online at <https://www.acns.org/meetings/annual-meeting-and-courses/2025-annual-meeting—courses>.

## ASET CEUS

ACNS is in the process of applying to ASET to allow attendees to claim ASET CEUs for attendance at the Annual Meeting & Courses. More information will be made available online at <https://www.acns.org/meetings/annual-meeting-and-courses/2025-annual-meeting—courses>.

# CALL FOR POSTER ABSTRACTS

## SCIENTIFIC CONTENT

The ACNS Annual Meeting is designed to provide the latest scientific advances in both “central” and “peripheral” clinical neurophysiology. Presentations at the Annual Meeting are given by leading experts in the field and have value for health care professionals who utilize clinical neurophysiology. Poster presentations at the Annual Meeting highlight the latest work conducted at clinical neurophysiology centers around the country.

## SUBMISSION DATES

Poster abstract submission will open on October 1, 2024. All abstracts must be submitted online by November 17, 2024, at 11:59pm ET. No exceptions will be made.

## ONLINE ABSTRACT SUBMISSION

Poster abstracts must be submitted through the online abstract submission site. Complete instructions for submission are available online at <https://www.acns.org/meetings/annual-meeting-and-courses/2025-annual-meeting--courses/call-for-poster-abstracts>. Abstracts that have been mailed, emailed or faxed will not be accepted. Anyone may submit a poster abstract to ACNS. Membership in ACNS is not required for poster abstract submission.

## ABSTRACT REVIEW

All abstracts submitted will be reviewed, evaluated for scholarly and relevant content, and graded in blinded fashion by the ACNS Program Committee. The review process takes approximately four weeks, and acceptance notification will be made by email no later than December 16, 2024.

## ABSTRACT CATEGORIES

Abstracts submitted to the ACNS 2025 Annual Meeting should be designated for consideration within one of the following categories to be considered for presentation:

Autonomic Function and its Disorders	Functional Imaging
Basic Neurophysiology	Intraoperative Monitoring
CNS Physiology	Magnetoencephalography
Critical Care Monitoring	Neuromuscular Ultrasound
Deep Brain and Cortical Stimulation	Other
Digital/Quantitative EEG and Topography	Peripheral Nerve and Muscle Physiology
EEG	Peripheral Neuropathy
EMG/NCV Testing	Sensory/Motor Physiology
Epilepsy: Clinical	Sleep
Epilepsy: Pathophysiology	Stereo EEG
Evoked Potentials	Video-EEG Monitoring for Epilepsy

## ABSTRACT TYPES

Two types of poster abstracts submissions will be accepted: Poster Abstract Regular Submission or Poster Abstract Case Report Submission. Both types of submissions will follow the same review process. Submitted abstracts are limited to 2,000 total characters. All required fields listed below, including the abstract title, will count towards this limit:

### Poster Abstract Regular Submission

Introduction  
Methods  
Results  
Conclusion

### Poster Abstract Case Report Submission

Introduction  
Case Report/Case History  
Conclusion

## RESIDENT & FELLOW SYMPOSIUM AND FEATURED CASE CONSIDERATION

Those submitting Poster Abstract Case Reports may indicate during the submission process that they'd like to be considered for the Resident & Fellow Symposium and/or to be a Featured Case in the ACNS Newsletter. Submissions are open to all trainees in their residency or fellowship years.

The Resident & Fellow Symposium is tentatively scheduled for Friday, February 28 at 4:15pm. The Resident & Fellow Education Committee will select finalists from among submitted case reports and will request brief (10-15 slide) presentations be submitted for review in December. Final selections for the symposium will be made and submitters notified no later than January 15th, 2025. Presenters must attend the Annual Meeting and present in-person at the symposium.

## PREVIOUS PUBLICATION OR PRESENTATION

Abstracts which have been published in journals, meeting proceedings, or other publications, as well as those presented at meetings prior to the ACNS meeting are eligible and welcome for submission. All poster abstracts presented at the Annual Meeting will be published in the Journal of Clinical Neurophysiology.

# CALL FOR POSTER ABSTRACTS

## POSTER PRESENTATION FORMAT

All posters at the 2025 Annual Meeting will be presented in-person, in Baltimore, Maryland. E-poster presentation is not available. More specific details related to submission of poster materials and interactive poster tours/presentation are pending and will be provided with poster acceptance notifications.

## AUTHOR ATTENDANCE REQUIREMENT

By submitting an abstract to ACNS 2025 Annual Meeting & Courses, abstract authors agree that at least one author will attend the meeting in-person and will be available to participate on the date and at the time assigned by the Program Committee. Virtual participation is not available. Authors will be notified of presentation dates and times at the time of notification of acceptance and are expected to make appropriate travel arrangements to ensure that at least one of the abstract's authors will be in attendance. All presenting authors are expected to register to attend the meeting by the deadline set forth in their acceptance notification. Abstracts for which an author is not pre-registered by the dates set forth will automatically be withdrawn from the program. Poster setup is tentatively scheduled for Thursday, February 27, 12:00 – 5:00pm and displayed Thursday, February 27 – Saturday, March 1, 2025.

## POSTER CANCELLATION POLICY

At least one author or co-author on all posters is expected to register to attend the meeting for which they are accepted by the deadlines set forth in their acceptance notification. If this author cancels their registration prior to the meeting, the poster may be withdrawn from the program.

## ENGLISH TRANSLATION REVIEW

All poster abstracts should be submitted in English. Poster abstract submitters for whom English is not a first language may request assistance from the ACNS International Relations Committee in reviewing abstract drafts for English language translation. To request translation assistance, please email the full text of your draft submission (in English) to Carrie Grossman at the ACNS Executive Office (cgrossman@acns.org), allowing at least 7 days for review of the translation.

## ACNS DEI STATEMENT

ACNS strives to be a diverse and inclusive organization, in terms of race, religion, ancestry, national origin, age, gender, gender identity, marital status, parental status, sexual orientation, veteran status, membership to any labor or charitable organization, political ideology, disability or any other legally protected basis. It is the policy of ACNS to provide equal opportunities to all eligible persons.

Likewise, ACNS strives to maintain diverse and inclusive representation reflective of the breadth of expertise and practice settings within the clinical neurophysiology community.

## YOUNG INVESTIGATOR TRAVEL AWARDS

Several young physician investigators will be selected, based upon the ranking of the applicant's abstract by the Program Committee.

## ELIGIBILITY CRITERIA

Applicant must be: (1) a current ACNS member or apply for membership concurrent with application for the Award; (2) a resident, fellow, or junior faculty within two years of completion of fellowship training; and (3) be the first author of an abstract submitted to the Annual Meeting. Applicant must meet the entire aforementioned criteria in order to be considered for the Young Investigator Award. Prior award recipients are not eligible for an additional award.

## SELECTION

Awardees will be chosen based on the quality of submitted abstracts, as ranked by the ACNS Program Committee. A total of six fellowships will be awarded for the ACNS 2025 Annual Meeting & Courses. Additional travel awards may be awarded if funding is available.

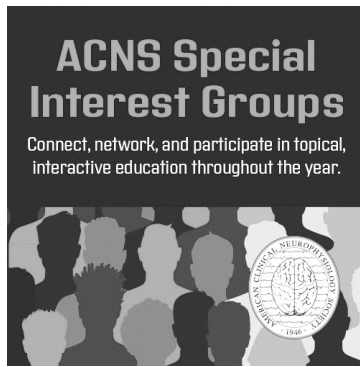
## PROCEDURES

Upon close of abstract submission, the ACNS Program Committee will review, evaluate, and rank abstracts, including all candidates for consideration to receive an award. The Program Committee Co-Chairs will select the final six awardees based on the collective rankings from the Program Committee. ACNS will notify awardees of a decision no later than December 16, 2024. Awardees will then be expected to accept the invitation by the deadlines set forth in their acceptance notifications, as well as register for the Annual Meeting.

## CANCELLATION POLICY

Award recipients are expected to register to attend the Annual Meeting by the deadlines set forth in their acceptance notification. If an award recipient cancels their registration prior to the meeting, the Travel Award may be withdrawn from the individual and designated to another candidate.

## SOCIAL & NETWORKING EVENTS



### SPECIAL INTEREST GROUP (SIG) MEET-UPS

**Thursday, February 27 and Friday, February 28, 2025**

Come learn about the ACNS SIGs in Stereo EEG, NIOM, ICU EEG and the Business of Clinical Neurophysiology. Hear about what they have planned in the coming months as they offer key educational content throughout the year.

#### ICU EEG and Business of CNP

Thursday, February 27, 2025

2:15 - 3:15pm

#### NIOM and Stereo EEG

Friday, February 28, 2025

7:00 - 8:00am

### WELCOME RECEPTION

**Thursday, February 27, 2025**

**6:30 – 8:00pm**

ACNS invites all delegates for drinks and hors d'oeuvres at the Welcome Reception in the Exhibit Hall on Thursday, February 27.

### THE CLINICAL NEUROPHYSIOLOGY OF NEUROGASTRONOMY: BON APPÉTIT!

**FRIDAY, FEBRUARY 28, 2025**

**6:00 – 7:30pm**

Join ACNS President Dr. Meriem Bensalem-Owen for an interactive and educational review on how CNP informs us about the link between the brain and eating behaviors. All foodies are welcome as we explore this feast of senses, featuring guest chefs discussing concepts behind various dishes. Sample the execution of those concepts while mixing and mingling with fellow colleagues and foodies!

More information to come!

A limited number of tickets are available for purchase and include small plates and two (2) drink tickets.

\$50 per physician

\$25 per trainee

### PROFESSIONAL DEVELOPMENT MENTORSHIP PROGRAM

Open only to ACNS members, the Professional Development Mentorship Program is an opportunity to network with some of the best neurophysiologists in the world during and after the ACNS Annual Meeting!

#### The goals of the program are to:

- Foster career development in Clinical Neurophysiology;
- Encourage active participation in the many activities of ACNS; and
- Facilitate networking among ACNS members.

Participants may sign up to serve as mentors or as mentees requesting a mentor when they register to attend the ACNS Annual Meeting. Mentors and mentees will be matched prior to the Annual Meeting and will be introduced to one another via email and are then free to correspond directly.



## AWARD LECTURES & RECIPIENTS

The ACNS Awards Committee, chaired by Saurabh R. Sinha, MD, FACNS, is pleased to announce the following recipients of ACNS's 2025 awards who will be recognized at the upcoming 2025 Annual Meeting in Baltimore, Maryland.

### HERBERT H. JASPER AWARD



**Patrick Y. Chauvel, MD**

The Herbert H. Jasper Award is presented annually to an individual who has made a lifetime of outstanding contributions to the field of clinical neurophysiology. Dr. Chauvel will be recognized and will deliver the 2025 Jasper Lecture on Thursday, February 27, 2025

### ROBERT S. SCHWAB AWARD

**Janice Massey, MD**

The Robert S. Schwab Award is presented annually to an individual who has made significant contributions in the area of clinical neurophysiology. Dr. Massey will be recognized and will deliver the 2025 Schwab Lecture on Thursday, February 27, 2025.

### PIERRE GLOOR AWARD



**Lawrence J. Hirsch, MD, FACNS**

The Pierre Gloor Award is presented annually for outstanding current contributions to clinical neurophysiology research. Dr. Hirsch will be recognized and will deliver the 2025 Gloor Lecture titled "Reminiscences and Lessons Learned from 30 years of the Modern EEG Renaissance" on Saturday, March 1, 2025.

### MARC R. NUWER SERVICE AWARD PRESENTATION



**William O. Tatum IV, DO, FACNS**

The Marc R. Nuwer Service Award is presented annually to an individual in recognition of outstanding service to ACNS and its members, including non-scientific contributions. Dr. Tatum will be recognized during the Annual Business Meeting on Friday, February 28, 2025.

### ACNS DISTINCTION IN TEACHING AWARD



**Daniel J. Weber, DO, FAES, FACNS**

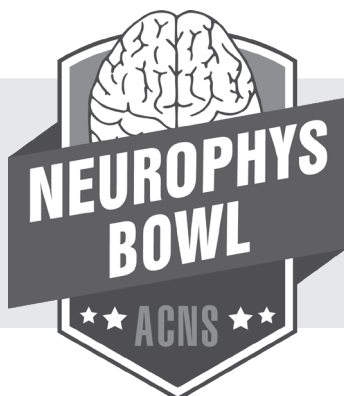
The Distinction in Teaching Award was created to recognize a mid-career ACNS member for outstanding accomplishments in teaching clinical neurophysiology to fellows, residents, medical students, or EEG technologists. Dr. Weber will be recognized during the Annual Business Meeting on Friday, February 28, 2025.

### ACNS DISTINCTION IN SERVICE AWARD



**Marcus C. Ng, MD, FRCPC, CSCN, FACNS**

The Distinction in Service Award was created to recognize a mid-career ACNS member who has demonstrated outstanding service to the field of clinical neurophysiology at the institutional or national level. Dr. Ng will be recognized during the Annual Business Meeting on Friday, February 28, 2025.



### NEUROPHYS BOWL

**Saturday, March 1, 2025**

**12:10 – 1:25pm**

It's back! Challenge your knowledge of clinical neurophysiology in a game-show style competition. Volunteer to be part of a team when registering to attend the Annual Meeting & Courses!

## SCHEDULE AT A GLANCE

THURSDAY, FEBRUARY 27, 2025	
7:00 - 8:30am	<b>Breakfast</b>
8:00 - 9:30am	<b>2701: Course: Ambulatory EEG Monitoring</b> Course Directors: <i>Aline Herlopian, MD and William O. Tatum IV, DO, FACNS, DO</i>
	<b>2702: Burnout in Clinical Neurophysiology: Current State and the Way Forward</b> Session Directors: <i>Cormac A. O'Donovan, MD, FRCPI, FACNS and Hiba A. Haider, MD, FACNS, FAES</i>
8:00 - 11:15am	<b>2703: Course: ICU EEG Monitoring - Part V</b> Course Directors: <i>Frank W. Drislane, MD, FACNS and Zubeda Sheikh, MD, MSCTS, FACNS</i>
9:30 - 9:45am	<b>Coffee Break</b>
9:45 - 11:15am	<b>2711: Defining the Epileptogenic Zone using Quantification of the Stereo-Electroencephalography Signal</b> Session Directors: <i>Jaysingh Singh, MD and Birgit Frauscher, MD, PhD, FACNS</i>
	<b>2712: NIOM Practice Demystified: Contracts, Salaries, Billing, and Practice Models</b> Session Directors: <i>Reiner Henson See, MD and Pegah Afra, MD, FACNS</i>
11:20am - 12:45pm	<b>2721: General Session: Jasper Award Presentation &amp; Lecture   Schwab Award Presentation &amp; Lecture</b>
12:45 - 2:15pm	<b>Lunch</b>
1:00 - 2:00pm	<b>2731: Diversity, Equity, and Inclusion (DEI) Roundtable</b> Session Directors: <i>Gloria M. Galloway, MD, MBA, FACNS and Jaime R. López, MD, FACNS</i>
2:15 - 3:15pm	<b>Special Interest Group (SIG) Meet-Ups</b> ICU EEG and Business of CNP
3:15 - 4:45pm	<b>2741: The Spectrum of Career Options in Clinical Neurophysiology: From Traditional &amp; Academic to Remote</b> Session Directors: <i>Heidi Munger Clary, MD, MPH, FACNS and Pegah Afra, MD, FACNS</i>
	<b>2742: EEG Monitoring After Newborn Heart Surgery</b> Session Director: <i>Robert Clancy, MD</i>
	<b>2743: Course: Extraoperative Neurostimulation and Mapping</b> Course Director: <i>Iffat Ara Suchita, MD</i>
3:15 - 6:30pm	<b>2744: Course: ICU EEG Monitoring - Part VI</b> Course Directors: <i>Frank W. Drislane, MD, FACNS and Zubeda Sheikh, MD, MSCTS, FACNS</i>
5:00 - 6:30pm	<b>2751: Circadian Rhythm Disorders, Orthosomnia, and Wearables for Sleep</b> Session Directors: <i>Ran Liu, MD, FRCPC, DABPN, DABSM, CSCN (EEG), MSc and Milena Pavlova, MD</i>
	<b>2752: Pediatric EMG Technical Considerations and Clinical Applications (ACNS/Egyptian Society of Neurology, Psychiatry and Neurosurgery (ESNPN Joint Symposium))</b> Session Director: <i>AyatAllah F. Hussein, MD</i>
	<b>2753: Course: Recognizing Seizure Semiology from Ictal Scalp EEG Analysis: A Sherlock Holmes' Approach</b> Course Director: <i>Neel Fotedar, MD</i>
6:30 - 8:00pm	<b>Welcome Reception</b>

## SCHEDULE AT A GLANCE

FRIDAY, FEBRUARY 28, 2025	
7:00 - 8:30am	<b>Breakfast</b>
7:00 - 8:00am	<b>Special Interest Group (SIG) Meet-Ups</b> NIOM and Stereo EEG
8:00 - 9:30am	<b>2801: Global Workforce: Bridging the Gap in Epilepsy</b> Session Directors: <i>Aline Herlopian, MD and Clio Rubinos, MD, MS, FACNS</i> <span style="float: right;">SA</span>
	<b>2802: Practical Considerations in MEG Recording and Analysis in Infants and Children</b> Session Directors: <i>Ismail S. Mohamed, MD, FAES, FACNS and Jeffrey R. Tenney, MD, PhD, FACNS</i> <span style="float: right;">SA</span>
8:00 - 11:15am	<b>2803: Course: NIOM - Part V</b> Course Directors: <i>E. Matthew Hoffman, DO, PhD, FACNS and Elayna Rubens, MD, FACNS</i> <span style="float: right;">SA</span>
	<b>2804: Course: Stereo EEG - Part V</b> Course Directors: <i>David Burkholder, MD and Ramya Raghupathi, MD</i> <span style="float: right;">SA</span>
9:45 - 11:15am	<b>2811: Evolution of Health Care Economy and How it Affects Clinical Neurophysiology: Past, Present and Future</b> Session Directors: <i>Pegah Afra, MD and Matthew W. Luedke, MD, FACNS</i> <span style="float: right;">SA</span>
	<b>2812: The Status of Clusters: Untangling Status Epilepticus from Clustered Seizures in DEE Across the Lifespan</b> Session Directors: <i>Inna Hughes, MD, PhD and Michael R. Halstead, MD</i> <span style="float: right;">SA</span>
11:30am - 1:00pm	<b>2821: General Session: Young Investigator Travel Award Presentation   2024 Cosimo-Ajmone Marsan Award Presentation   Presidential Address   Business Meeting</b>
1:00 - 2:30pm	Lunch
2:30 - 4:00pm	<b>2831: Clinical Diagnosis of Amyotrophic Lateral Sclerosis: From the Published Consensus Criteria to The EMG Lab (ACNS/ Sociedad Española de Neurofisiología Clínica Joint Symposium)</b> Session Director: <i>Victoria Fernández, MD, PhD, FACNS</i> <span style="float: right;">SA</span>
2:30 - 5:45pm	<b>2832: Course: NIOM - Part VI</b> Course Directors: <i>E. Matthew Hoffman, DO, PhD, FACNS and Elayna Rubens, MD, FACNS</i> <span style="float: right;">SA</span>
	<b>2833: Course: Stereo EEG - Part VI</b> Course Directors: <i>Ramya Raghupathi, MD and David Burkholder, MD</i> <span style="float: right;">SA</span>
	<b>2834: Course: Practical Aspects of Electrical Source Imaging</b> Course Directors: <i>Susan T. Herman, MD, FACNS and Stephen Foldes, PhD</i> <span style="float: right;">SA</span>
4:00 - 4:15pm	<b>Coffee Break</b>
4:15 - 5:45pm	<b>2841: Clinical Neurophysiology Resident and Fellow Symposium</b> Session Directors: <i>Katie Bullinger, MD, PhD, FACNS and Trenton Tollefson, MD, FACNS</i>
6:00 - 7:30pm	<b>The Clinical Neurophysiology of Neurogastronomy: Bon Appétit!</b>

## SCHEDULE AT A GLANCE

SATURDAY, MARCH 1, 2025	
7:00 - 8:30am	<b>Breakfast</b>
8:00 - 9:30am	<b>3101: Course: Neuromodulation in Epilepsy: Hands-On Course</b> Course Directors: <i>Shruti Agashe, MD, MS-BME and Vikram R. Rao, MD, PhD</i> <span style="float: right;">SA</span>
	<b>3102: Neurophysiology of Basal Ganglia, Thalamus and other Targets for Treatment of Movement Disorders, Epilepsy and Psychiatric Conditions</b> Session Director: <i>Oscar Bernal-Pacheco, MD</i>
	<b>3103: Novel MEG Computational Modelling: From Theory to Clinical Applications</b> Session Directors: <i>Ismail S. Mohamed, MD, FAES, FACNS and Jeffrey R. Tenney, MD, PhD, FACNS</i> <span style="float: right;">SA</span>
8:00 - 11:15am	<b>3104: Course: Neurophysiology of Clinical Spells in the ICU: a Case-Based Workshop</b> Course Directors: <i>Zubeda Sheikh, MD, MSCTS, FACNS and Lawrence J. Hirsch, MD, FACNS</i>
9:30- 9:45am	<b>Coffee Break</b>
9:45 - 11:15am	<b>3111: Criteria and Standards for Reporting Significant Changes in NIOM</b> Session Director: <i>Michael McGarvey, MD, FACNS</i>
	<b>3112: Neonatal EEG - When, How and Why (JIS ACNS/The British Society for Clinical Neurophysiology Joint Symposium)</b> Session Director: <i>Ronit M. Pressler, PhD, MD, MRCPCH</i> <span style="float: right;">SA</span>
	<b>3113: Course: Sleep Medicine Year In Review 2025: What Clinical Neurophysiologists Want To Know</b> Course Directors: <i>Madeleine M. Grigg-Damberger, MD, FACNS</i>
11:30am - 1:25pm	<b>3121: General Session: Gloor Award Presentation &amp; Lecture  Neurophys Bowl</b>
1:25 - 3:00pm	<b>Lunch</b>
1:30 - 3:00pm	<b>3131: Program Director's Symposium: Curriculum Design &amp; Modality-specific CNP Tests: How Much is Too Little and How Much is Too Much?</b> Session Directors: <i>Heidi M. Munger Clary, MD, MPH, FACNS and Pegah Afra, MD, FACNS</i>
3:15 - 4:45pm	<b>3141: Course: Approach to Brachial Plexopathy in the EMG Laboratory: A Hands-On Nerve Conduction Study Workshop</b> Course Director: <i>Ruple S. Laughlin, MD, FACNS</i>
	<b>3142: New and Novel Clinical Applications of Electrocorticography (ECoG)</b> Session Directors: <i>Brin Freund, MD and William O. Tatum IV, DO, FACNS</i> <span style="float: right;">SA</span>
	<b>3143: Multimodal Sacral Nerve Root Monitoring: Maintaining Quality of Life for Our Patients by Preserving Bladder, Bowel, and Sexual Function</b> Session Directors: <i>Justin Silverstein, DHSc and Mirela Simon, MD, MSC, FACNS</i> <span style="float: right;">SA</span>
	<b>3144: The Use of Clinical Neurophysiology in Underrepresented and Underserved Populations in the USA and Mexico (ACNS/Sociedad Mexicana de Neurofisiología Clínica A.C. Joint Symposium)</b> Session Director: <i>Alejandro Zavala, MD, FACNS</i>
4:45- 5:00pm	<b>Coffee Break</b>
5:00 - 6:30pm	<b>3151: Exploring Cognitive Mapping: Insights from Stereoelectroencephalography (SEEG)</b> Session Director: <i>Ammar Kheder, MD, FACNS</i> <span style="float: right;">SA</span>
	<b>3152: Course: Introduction to Clinical Magnetoencephalography (MEG)</b> Course Director: <i>Jeffrey R. Tenney, MD, PhD, FACNS</i> <span style="float: right;">SA</span>
	<b>3153: Course: Making Sense of Atypical Nerve Conduction Study and Needle EMG Waveforms</b> Course Director: <i>Devon I. Rubin, MD, FACNS</i>
	<b>3154: Personalization of Intracranial Neuromodulation Treatments in Epilepsy</b> Session Directors: <i>Shruti Agashe, MD, MS-BME and Nicholas Gregg, MD</i> <span style="float: right;">SA</span>



## SCHEDULE AT A GLANCE

SUNDAY, MARCH 2, 2025	
7:00 - 8:30am	<b>Breakfast</b>
8:00 - 9:30am	<b>3201: Genetic and EEG Biomarkers of The Epileptogenic Zone</b> Session Directors: <i>Cody L. Nathan, MD and Elizabeth E. Gerard, MD, FACNS</i> <span style="float: right;">SA</span>
	<b>3202: Leveraging Neurophysiology Data from Neuromodulation Devices for Enhanced Clinical Decision-Making</b> Session Director: <i>Ezequiel Gleichgerrcht, MD, PhD</i>
	<b>3203: Signal Optimization in Techniques for Intraoperative Neurophysiologic Monitoring</b> Session Directors: <i>Jaime R. López, MD, FACNS and Lidia Cabañes Martínez, MD, FACNS</i>
	<b>3204: Status Epilepticus Identification and Management in Special Pediatric Populations</b> Session Directors: <i>Nicholas S. Abend, MD, MSCE, FACNS and France Fung, MD, MSc, FACNS</i> <span style="float: right;">SA</span>
9:45 - 11:15am	<b>3211: Best Practices and Workflow Models for Continuous EEG Monitoring in Critical Care, and their Effect on Patient Outcomes</b> Session Director: <i>Magdalena Warzecha, BS, R.EEG/EP, CLTM, NA-CLTM, FASET</i>
	<b>3212: Controversies in the Surgical Management of Eloquent Cortex Epilepsies: Resection vs Neuromodulation</b> Session Director: <i>Asim Shahid, MD</i>
	<b>3213: Modification of Conventional Techniques for Intraoperative Monitoring of Nerve Roots and Peripheral Nerves: Posterior Root Muscle Response and Other Uses of High Voltage Electrical Stimulation</b> Session Directors: <i>Lidia Cabañes Martínez, MD, FACNS and Alejandro Zavala, MD, FACNS</i>
	<b>3214: SEEG Implantation Strategy in Epileptic Patients: Illustrative Case Discussions</b> Session Director: <i>Jun T. Park, MD, FACNS</i> <span style="float: right;">SA</span>

# ANNUAL COURSES & ANNUAL MEETING SCIENTIFIC PROGRAM

**THURSDAY, FEBRUARY 27, 2025**

**7:00 – 8:30am**

Breakfast

**8:00 – 9:30am CONCURRENT SESSIONS**

## **Course: Ambulatory EEG Monitoring** **SA**

Directors: Aline Herlopian, MD and William O. Tatum IV, DO, FACNS

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Identify the minimal requirements to perform AEEGs;
2. Recognize the differences in utilizing inpatient versus outpatient video-EEG monitoring; and
3. Discuss the current available technology for chronic outpatient ambulatory EEG monitoring.

8:00am Introduction

*William O. Tatum IV, DO, FACNS*

8:05am Minimum Standards for Recording AEEG

*Saurabh R. Sinha, MD, PhD, FACNS*

8:30am Bridging EMU and AEEG

*Sarah E. Schmitt, MD, FACNS*

8:55am Chronic Ambulatory EEG Devices

*Mark Cook, MD*

9:20am Discussion

## **Burnout in Clinical Neurophysiology: Current State and the Way Forward**

Directors: Hiba A. Haider, MD, FACNS, FAES and Cormac O'Donovan, MD, FRCPI, FACNS

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Describe contributors to burnout in the context of current-day clinical neurophysiology and epilepsy practice;
2. Apply a neuroscience-based team management framework to assist in developing highly effective teams to enhance capacity to solve health-care challenges; and
3. Identify effective strategies utilized by peers and thought leaders to improve well-being in the workplace.

8:00am The Current State of Burnout in Clinical Neurophysiology & Epilepsy Practice: What Puts Us At Risk?

*Hiba A. Haider, MD, FACNS, FAES*

8:25am Applying a Neuroscience-Based Framework to Develop Highly Effective Teams

*Mary Rensel, MD, FAAN, ABIHM*

8:50am Leadership 2.0: Aligning Institutional Missions with Clinician Well-Being

*Meriem Bensalem-Owen, MD, FACNS*

9:15am Discussion

**8:00 – 11:15am**

## **Course: ICU EEG Monitoring - Part V**

Directors: Frank W. Drislane, MD, FACNS and Zubeda Sheikh, MD, MSCTS, FACNS

Learning Objectives To Come

8:00am ICU EEG Monitoring: History and Development

*Frank W. Drislane, MD, FACNS*

8:25am ACNS ICU EEG Terminology: RPPs/ESE/IIC/BIRDs

*Lawrence J. Hirsch, MD, FACNS*

8:50am EEG Background: Terminology and Grading of Dysfunction

*Zubeda Sheikh, MD, MSCTS, FACNS*

9:15am Discussion

9:30am Break

9:45am ICU EEG Monitoring and ACNS Terminology in Neonates

*Shavonne Massey, MD, MSCE, FACNS*

10:10am CEEG in Guiding the Management of Status Epilepticus and IIC

*Suzette LaRoche, MD, FACNS*

10:35am Pediatric Status Epilepticus: Predictors and Outcomes

*France Fung, MD, MSc, FACNS*

11:00am Discussion

**9:30 – 9:45am**

**Coffee Break**

# ANNUAL COURSES & ANNUAL MEETING SCIENTIFIC PROGRAM

**THURSDAY, FEBRUARY 27, 2025**

**9:45 – 11:15am CONCURRENT SESSIONS**

## Defining the Epileptogenic Zone Using Quantification of the Stereo-Electroencephalography Signal

Directors: Jaysingh Singh, MD and Birgit Frauscher, MD, PhD, FACNS

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Acquire knowledge of novel quantitative approaches for defining the epileptogenic zone network using inter-ictal and ictal SEEG data;
2. Integrate the findings from quantitative analysis of SEEG in surgery decision-making; and
3. Discuss how other epilepsy centers can adopt these methods during surgical evaluation.

9:45am Challenges to the Visual Analysis of SEEG Interpretation  
*Jaysingh Singh, MD*

10:00am Quantification of Ictal SEEG Signal; From Signal to Modeling  
*Fabrice Bartolomei, MD, PhD*

10:25am Value of Analyzing the Interictal Epileptic Spikes on SEEG  
*Benjamin Brinkmann, PhD*

10:50am Clinical Applications of the Quantified Stereo-EEG Analysis Methodology  
*Birgit Frauscher, MD, PhD, FACNS*

## NIOM Practice Demystified: Contracts, Salaries, Billing, and Practice Models **SA**

Directors: Reiner Henson See, MD and Pegah Afra, MD, FACNS

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Discuss the challenges and dynamic landscape of NIOM including an examination of the diverse practice models available;
2. Perform administrative functions pivotal to enhance practice profitability, gain insights into effective contract negotiations when embarking on employment contracts. Learn strategic recruitment techniques, innovative strategies for retaining staff; and
3. Explain diverse compensation plans in NIOM practice, encompassing salary structures, RVU and various models predicated on patient volume or case complexity vis-à-vis time-based arrangements.

9:45am Compensation Unlocked: Decoding RVU Coding, Billing, and Salary Structures in NIOM Practice Models  
*Reiner Henson See, MD*

10:15am Maximizing NIOM Practice for Success: Navigating Contracts, Hiring, and Revenue Strategies  
*David M. Zimmerman, BS, CNIM*

10:45am Driving Growth: Mastering Challenges and Expansion Strategies in NIOM Practice  
*Yafa Minazad, DO, FACNS, MMM*

**11:20am – 12:45pm**

## General Session: Jasper Award Presentation & Lecture | Schwab Award Presentation & Lecture

**12:45 – 2:15pm**

**Lunch**

**1:00 – 2:00pm**

## Diversity, Equity, and Inclusion (DEI) Roundtable

Directors: Gloria M. Galloway, MD, MBA, FACNS and Jaime R. López, MD, FACNS

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Discuss and provide recommendations for challenges and changes in DEI initiatives at ACNS;
2. Discuss challenges to DEI changes at our own institutions; and
3. Discuss potential recommendations that can be incorporated at our individual institutions to initiate or progress DEI changes.

1:05pm Introduction  
*Gloria M. Galloway, MD, MBA, FACNS*

1:10pm DEI Focus Groups  
*The committee will provide a set of framing questions and topics to each table. Participants can self-select their discussion topics from the list of add others. Following discussion, each table will be asked to summarize their main points of concern and suggestions for next steps and moving forward both within ACNS and at their home institutions.*

1:50pm Report/Summary  
*Jaime R. López, MD, FACNS*

**2:15 – 3:15pm**

## Special Interest Group (SIG) Meet-Ups

ICU EEG  
Business of CNP

# ANNUAL COURSES & ANNUAL MEETING SCIENTIFIC PROGRAM

**THURSDAY, FEBRUARY 27, 2025**

## 3:15 – 4:45pm CONCURRENT SESSIONS

### The Spectrum of Career Options in Clinical Neurophysiology: From Traditional & Academic to Remote

Directors: Heidi M. Munger Clary, MD, MPH, FACNS and Pegah Afra, MD, FACNS

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Provide examples of various career options in clinical neurophysiology;
2. Provide interactive advice on the pros and cons of each of these pathways, the day-to-day components of these roles and impact on lifestyle; and
3. Analyze their own goals and preferences and consider next steps in career growth within distinct career options in clinical neurophysiology.

3:15pm Introduction

3:20pm Clinical Neurophysiology in a Traditional Private Practice Model  
*Robert Connors, MD*

3:30pm Academic Practice in EMG: Focus on Education  
*Ruple S. Laughlin, MD, FACNS*

3:40pm Academic Practice in EEG (Pediatric): Focus on Research and Administration  
*Courtney J. Wusthoff, MD, MS, FACNS*

3:50pm Remote Intraoperative Monitoring and EEG  
*Matthew Wong, MD*

4:00pm Discussion

### EEG Monitoring After Newborn Heart Surgery **SA**

Director: Robert Clancy, MD

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Describe the biological stresses placed upon the neonatal brain from a congenital heart defect, cardiopulmonary bypass, and hypothermic circulatory arrest;
2. Describe the frequency of EEG seizures and status epilepticus after newborn heart surgery and their association with subsequent adverse neurodevelopmental outcomes; and
3. Identify the neonatal EEG background patterns associated with diffuse white matter injuries and localized stroke.

3:15pm EEG Seizures Following Newborn Heart Surgery  
*Shavonne Massey, MD, MSCE, FACNS*

3:45pm Neonatal EEG Background Changes Indicative of Structural Brain Abnormalities After Newborn Heart Surgery  
*Janette Mailo, MD, PhD*

4:15pm The Neurobiology of Congenital Heart Disease  
*Robert Clancy, MD*

### Course: Extraoperative Neurostimulation and Mapping

Director: Iffat Ara A. Suchita, MD

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Demonstrate knowledge on neurostimulation with SDG, depth and sEEG;
2. Conduct extraoperative neurostimulation on adult and pediatric cases; and
3. List the parameter difference among SDG, sEEG and age-based stim.

3:15pm Cortical Stimulation Mapping with SDG  
*Iffat Ara A. Suchita, MD*

3:45pm Electrostimulation with sEEG/Depth  
*Gregory Worrell, MD, PhD*

4:15pm Seizure Provocation and Pediatric Neurostimulation at EMU  
*Lily Wong-Kisiel, MD, FACNS*

## 3:15 – 6:30pm

### Course: ICU EEG Monitoring Part VI

Directors: Frank W. Drislane, MD, FACNS and Zubeda Sheikh, MD, MSCTS, FACNS

Learning Objectives To Come

3:15pm QEEG in the ICU  
*Hiba A. Haider, MD, FACNS, FAES*

3:40pm Duration of CEEG in ICU: Do We Standardize or Customize?  
*Aaron Struck, MD, FACNS*

4:05pm Hypoxic Ischemic Brain Injury  
*Jong Woo Lee, MD, PhD, FACNS*

4:30pm Discussion

4:45pm Break

5:00pm Advanced Multimodal Monitoring  
*Brandon Foreman, MD*

5:25pm Biomarkers of Epilepsy After Acute Brain Injury  
*Vineet Punia, MD*

5:50pm NORSE/FIRES  
*Nicolas Gaspard, MD, PhD, FACNS*

6:15pm Discussion

## 4:45 – 5:00pm

### Coffee Break



# ANNUAL COURSES & ANNUAL MEETING SCIENTIFIC PROGRAM

**THURSDAY, FEBRUARY 27, 2025**

## 5:00 – 6:30pm CONCURRENT SESSIONS

### **Circadian Rhythm Disorders, Orthosomnia, and Wearables for Sleep** SA

Directors: Ran Liu, MD, FRCPC, DABPN, DABSM, CSCN (EEG), MSc and Milena Pavlova, MD

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Identify the science of sleep wearable technology, as well as an overview practical approach to their utility in clinical practice;
2. Explain the need for newer ways to measure sleep aside from the current gold standard of polysomnography; and
3. Utilize a few sample wearables in either research or clinical neurophysiology.

5:00pm Basic Neurophysiology of Circadian Rhythms  
*Mark S. Quigg, MD, MS, FAES, FANA*

5:25pm Clinical Presentation of Circadian Rhythm Disorders  
*Milena Pavlova, MD*

5:50pm Clinical Neurophysiology Limitations and A Case for Wearable Polysomnogram Alternatives  
*Marcus C. Ng, MD, FRCPC, CSCN (EEG), FACNS*

6:05pm Orthosomnia and a Practical Approach to Wearable Sleep Technology  
*Ran Liu, MD, FRCPC, DABPN, DABSM, CSCN (EEG), MSc*

### **Pediatric EMG Technical Considerations and Clinical Applications (ACNS/Egyptian Society of Neurology, Psychiatry and Neurosurgery (ESNPN) Joint Symposium)** SA

Director: AyatAllah F. Hussein, MD

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Identify the difference between adult and pediatric EMG, technique and approach;
2. Explain how to reach the correct diagnosis for a floppy infant; and
3. Explain technical problems in pediatric ICU and know how overcome and reach a proper diagnosis.

5:00pm EMG and NCV Approach in Floppy Infant  
*AyatAllah F. Hussein, MD*

5:25pm Technical Basics and Considerations in Pediatric EMG  
*Randa Jarrar, MD*

5:50pm Role of EMG and NCV in Pediatric ICU  
*Hanan Soliman, MD*

6:15pm Discussion

### **Course: Recognizing Seizure Semiology from Ictal Scalp EEG Analysis: A Sherlock Holmes' Approach** SA

Director: Neel Fotedar, MD

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Describe important non-EEG elements such as myogenic artifact, eye movements, etc. in an EEG recording;
2. Deduce seizure semiology via meticulous analysis of non-EEG elements without requiring additional video information; and
3. Define the putative epileptogenic zone using EEG-based seizure semiology and seizure localization.

5:00pm Reverse Engineering Scalp EEG to Recognize Seizure Semiology  
*Neel Fotedar, MD*

5:15pm Illustrative Case Discussion 1  
*Roohi Katyal, MD*

5:40pm Illustrative Case Discussion 2  
*Luisa V. Londoño Hurtado, MD*

6:05pm Illustrative Case Discussion 3  
*Asim Shahid, MD*

## 6:30 – 8:00pm

### **Welcome Reception**

# ANNUAL COURSES & ANNUAL MEETING SCIENTIFIC PROGRAM

**FRIDAY, FEBRUARY 28, 2025**

**7:00 – 8:30am**

**Breakfast**

**7:00 – 8:00am**

**Special Interest Group (SIG) Meet-Ups**

NIOM

Stereo EEG

**8:00 – 9:30am CONCURRENT SESSIONS**

**Global Workforce: Bridging the Gap in Epilepsy SA**

Directors: Clio Rubinos, MD, MS, FACNS and Aline Herlopian, MD

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Determine areas of practice gaps and establish collaborations;
2. Develop tools for overcoming challenges that hinder collaborative efforts; and
3. Develop programs aimed at narrowing the gap in clinical practice.

8:00am Epilepsy Care in Armenia

*Aline Herlopian, MD*

8:25am Building Consensus on EEG Terminology Across Spanish-Speaking Countries

*María Bruzzone Giraldez, MD, MSCR*

8:50am Epilepsy Care in Zambia and Nigeria

*Archana A. Patel, MD, MPH, MSc*

9:15am Dissemination of EEG Guidelines in Arabic through ACNS

*AyatAllah F. Hussein, MD*

**Practical Considerations in MEG Recording and Analysis in Infants and Children SA**

Directors: Ismail S. Mohamed, MD, FAES, FACNS and Jeffrey R. Tenney, MD, PhD, FACNS

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Understand the challenges encountered during resting MEG recordings and analysis in pediatrics;
2. Use Pediatric MEG results in surgical planning; and
3. Understand age-related considerations during MEG functional mapping and strategies for optimal recordings.

8:00am MEG in Pediatrics: Introduction & Challenges

*Ismail S. Mohamed, MD, FAES, FACNS*

8:05am MEG Recordings in Children

*Jeffrey R. Tenney, MD, PhD, FACNS*

8:30am MEG Functional Mapping in Children

*Susan Bowyer, PhD*

8:55am Incorporating Pediatric MEG in Epilepsy Surgery: Case Presentations

*Clifford Calley, MD*

9:20am Discussion

**8:00 – 11:15am CONCURRENT SESSIONS**

**Course: NIOM - Part V SA**

Directors: E. Matthew Hoffman, DO, PhD, FACNS and Elayna Rubens, MD, FACNS

Learning Objectives To Come

8:00am Spinal Cord Monitoring

*E. Matthew Hoffman, DO, PhD, FACNS*

8:25am Spinal Cord Monitoring

*Eva K. Ritzl, MD, MBA, FACNS, FAAN*

8:50am Intramedullary Spinal Cord Case Discussion

*Khalil S. Husari, MD*

9:15am Discussion

9:30am Break

9:45am Intraoperative Monitoring of Cardiac Surgery

*Michael McGarvey, MD*

10:10am Intraoperative Monitoring of Aortic Surgery

*Mirela Simon, MD, MSs, FACNS*

10:35am Peripheral Nerve Monitoring

*Jessie Nance, MD*

11:00am Discussion

# ANNUAL COURSES & ANNUAL MEETING SCIENTIFIC PROGRAM

**FRIDAY, FEBRUARY 28, 2025**

## Course: Stereo EEG - Part V **SA**

Directors: Ramya Raghupathi, MD and David Burkholder, MD

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Enhance understanding of SEEG methodology ,interpretation and its role in epilepsy surgery;
2. Describe clinical indications and patient selection criteria for SEEG, including pediatric considerations; and
3. Explore advancements in cortical stimulation and practical applications.

8:00am Basic Principles of Stimulation in SEEG  
*Patrick Chauvel, MD*

8:25am Performing Stimulation Mapping for Function  
*Ravindra Arya, MD, DM, FACNS*

8:50am Performing Stimulation Mapping for Seizures  
*Juan C. Bulacio, MD*

9:15am Discussion

9:30am Break

9:45am Cases - Basic Principle Highlights  
*Patrick Chauvel, MD*

10:10am Cases - Functional Mapping  
*Ravindra Arya, MD, DM, FACNS*

10:35am Cases - Seizure Mapping  
*Juan C. Bulacio, MD*

11:00pm Discussion

**9:30– 9:45am**

**Coffee Break**

## 9:45 – 11:15am CONCURRENT SESSIONS

### Evolution of Health Care Economy and How it Affects Clinical Neurophysiology: Past, Present and Future **SA**

Directors: Pegah Afra, MD, FACNS and Matthew W. Luedke, MD, FACNS

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Describe the evolution of healthcare models(HC) in the past couple of decades, including different forms of consolidation and its HC economical effect;
2. Describe the challenges that different clinical neurophysiology services (EEG, IOM, sleep, etc) are facing in the current economical climate of outsourcing; and
3. Describe the short and long term financial impact of the CNP-outsourcing on departments of neurology.

9:45am Evolution of HC Models Over the Past Decades: What Have Physicians Lost and How the Revenue was Transferred  
*Pegah Afra, MD, FACNS*

10:15am The Widespread Practice of Outsourcing CNP: A Loss in Practice and Revenue: Is There an Explanation?  
*Aatif M. Husain, MD, FACNS*

10:45am The Future Impact of Consolidation and Outsourcing CNP Services to Neurology Departments: 1 -Year, 5- Year and 10- Year Trajectory  
*Barbara C. Jobst, MD, FAES, FAAN, FACNS*

# ANNUAL COURSES & ANNUAL MEETING SCIENTIFIC PROGRAM

**FRIDAY, FEBRUARY 28, 2025**

## The Status of Clusters: Untangling Status Epilepticus from Clustered Seizures in DEE Across the Lifespan **SA**

Directors: Inna Hughes, MD, PhD and Michael R. Halstead, MD

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Describe the current nomenclature in status epilepticus, acute repetitive seizure, and seizure clustering and how patients with epilepsy syndromes across the lifespan may present within or outside these definitions;
2. Recognize common features of continuous EEG and QEEG seen in patients with developmental epileptic encephalopathies with acute epilepsy exacerbations; and
3. Identify opportunities to more clearly apply nomenclature in EEG reporting which may better facilitate care for patients with complex epilepsy presenting in status epilepticus or acute repetitive seizures.

9:45am Acute Repetitive Seizures Versus Clusters Versus Tonic Status: A Case Where Descriptions Really Matter  
*Inna Hughes, MD, PhD*

10:05am A Case of Clustered Seizures: Managing Expectations in Adults with LGS/DEEs  
*Michael R. Halstead, MD*

10:30am Audience Response: What Would You Call These Electrographic Patterns?  
*Courtney Wusthoff, MD, MS, FACNS*

10:40am The Language of EEG Matters: Parent Experience in the ICU in Clustered Seizures in DEE  
*Shawn Egan, PhD*

11:05am Discussion

**11:30am – 1:00pm**

## General Session: Young Investigator Travel Award Presentation | 2024 Cosimo-Ajmone Marsan Award Presentation | Presidential Address | Business Meeting

**1:00 – 2:30pm**

**Lunch**

**2:30 – 4:00pm**

## Clinical Diagnosis of Amyotrophic Lateral Sclerosis: From the Published Consensus Criteria to The EMG Lab (ACNS/Sociedad Española de Neurofisiología Clínica Joint Symposium) **SA**

Director: Victoria Fernández, MD, PhD, FACNS

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Define ALS new diagnostic criteria;
2. Implement new techniques that are useful in ALS diagnosis, and
3. Recognize and diagnose ALS mimickers.

2:30pm Introduction  
*Victoria Fernández, MD, PhD, FACNS*

2:35pm Amyotrophic Lateral Sclerosis (ALS) Diagnostic Criteria: Are They Appropriate for the Diagnosis?  
*Lidia Cabañes Martínez, MD, FACNS*

3:00pm Role of the Electrodiagnostic Testing for the Diagnosis of ALS: Beyond "Classic" Electromyography  
*Carmen Martínez Aparicio, MD, PhD*

3:25pm Role of EDX in Identifying ALS Mimickers  
*Devon I. Rubin, MD, FACNS*

3:50pm Discussion

**2:30 – 5:45pm CONCURRENT SESSIONS**

## Course: NIOM - Part VI **SA**

Directors: E. Matthew Hoffman, DO, PhD, FACNS and Elayna Rubens, MD, FACNS

Learning Objectives To Come

2:30pm Monitoring of the Visual System  
*Aatif M. Husain, MD, FACNS*

2:55pm Cranial Nerve Monitoring: CN Reflexes  
*Sedat Ulkatan, MD*

3:20pm NIOM in Functional Neurosurgery for Pain  
*Christine Hung, MD*

3:45pm Discussion

4:00pm Break

4:15pm Mapping and Monitoring of Cortical Motor Pathways  
*Alan D. Legatt, MD, PhD, FACNS*

4:40pm Language Mapping  
*Silvia Mazzali-Verst, MD, PhD*

5:05pm DBS  
*Jay L. Shils, PhD, DABNM, FASNM, FACNS*

5:30pm Discussion



# ANNUAL COURSES & ANNUAL MEETING SCIENTIFIC PROGRAM

**FRIDAY, FEBRUARY 28, 2025**

## Course: Stereo EEG - Part VI **SA**

Directors: Ramya Raghupathi, MD and David Burkholder, MD

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Enhance understanding of SEEG methodology, interpretation and its role in epilepsy surgery;
2. Describe clinical indications and patient selection criteria for SEEG, including pediatric considerations; and
3. Explore advancements in cortical stimulation and practical applications.

2:30pm Surgical Implications of Functional Mapping  
*Stephan Schuele, MD, MPH, FACNS, FAAN*

2:55pm Surgical Implications of Seizure Mapping  
*Agnes Trebuchon, MD, PhD*

3:20pm Utilization and Implications of Cortico-Cortical Evoked Potentials in SEEG  
*Sasha Dionisio, MD*

3:45pm Discussion

4:00pm Break

4:15pm Case Outcomes with Functional Mapping  
*Vasileios Kokkinos, CNIM, CMEG, NA-CLTM, PhD, PhD, PhD, FACNS*

4:40pm Case Outcomes with Seizure Mapping  
*Agnes Trebuchon, MD, PhD*

5:05pm CCEP Cases  
*Sasha Dionisio, MD*

5:30pm Discussion

## Course: Practical Aspects of Electrical Source Imaging **SA**

Directors: Susan T. Herman, MD, FACNS and Stephen Foldes, PhD

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Describe appropriate indications for electrical source imaging in epilepsy, including low density and high density EEG;
2. Optimize ESI acquisition and analysis using clinically available toolboxes; and
3. Integrate the results of ESI studies into the presurgical epilepsy evaluation.

2:30pm Indications, Subject Selection and Acquisition Workflow  
*Adriana Bermeo-Ovalle, MD, FACNS, FAES*

2:55pm MRI Processing and Head Models  
*Travis Stoub, PhD*

3:20pm Practical Source Localization Steps and the Role of the PhD  
*Stephen Foldes, PhD*

3:45pm Discussion

4:00pm Break

4:15pm Utility in Epilepsy Surgery Evaluations  
*Benjamin Cox, MD*

4:40pm Effects of Space, State, and Model Selection: Electrode Density, Vigilance, and Dipole vs Distributed Models  
*Prachi Parikh, MD*

5:05pm Operational Aspects of an ESI Program  
*Susan T. Herman, MD, FACNS*

5:30pm Discussion

**4:00 - 4:15pm**

**Coffee Break**

**4:15 - 5:45pm**

**Clinical Neurophysiology Resident and Fellow Symposium**

Directors: Katie Bullinger, MD, PhD, FACNS and Trenton Tollefson, MD, FACNS

Learning Objectives To Come

Complete Agenda to Come

**6:00 - 7:30pm**

**Clinical Neurophysiology of Neurogastroenterology - Bon Appetit!**

Tickets required.

# ANNUAL COURSES & ANNUAL MEETING SCIENTIFIC PROGRAM

**SATURDAY, MARCH 1, 2025**

**7:00am – 8:30am**

## **Breakfast**

**8:00 – 9:30am CONCURRENT SESSIONS**

### **Course: Neuromodulation in Epilepsy: Hands-On Course SA**

Directors: Shruti Agashe, MD, MS-BME and Vikram R. Rao, MD, PhD

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Perform basic and advanced programming of VNS devices;
2. Perform basic and advanced programming of DBS devices; and
3. Perform basic and advanced programming of RNS devices.

8:00am Programming of DBS Devices for Epilepsy  
*Shruti Agashe, MD, MS-BME*

8:30am Reviewing Data and Programming RNS Devices for Epilepsy  
*Vikram R. Rao, MD, PhD*

9:00am Programming of VNS Devices for Epilepsy  
*Fiona Lynn, NP*

### **Neurophysiology of Basal Ganglia, Thalamus and Other Targets for Treatment of Movement Disorders, Epilepsy and Psychiatric Conditions**

Director: Oscar Bernal-Pacheco, MD

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Register the neurons, “drawing” electrophysiologically borders of the nucleus or area where to implant the electrode in the thalamus;
2. Estimate the electrophysiological response to macrostimulation in order to obtain the clinical response according to the nucleus that is looking for;
3. Establish by MER the final target where to put the lead and make and approximation about the future response in psychiatric diseases.

8:00am Thalamic and Hippocampal DBS for Refractory Epilepsy  
*Arthur Cukiert, MD, PhD*

8:25am Microelectrode Recordings and the Physiology of STN, GPi, and ViM Firing, with Neurosurgical Considerations for Each Target, Neuroanatomy, and Intraoperative Stimulation Testing: Exploring Options for Epilepsy  
*Neepa Patel, MD*

8:50am Deep Brain Stimulation in the Posterolateral Hypothalamus: Effects on Behavior, Cognition and Epilepsy?  
*Oscar Bernal-Pacheco, MD*

9:15am Discussion

### **Novel MEG Computational Modelling: From Theory to Clinical Applications SA**

Directors: Ismail S. Mohamed, MD, FAES, FACNS and Jeffrey R. Tenney, MD, PhD, FACNS

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Explain the basis of different computational models for MEG analysis;
2. List potential future applications of new computational algorithms in localization of the epileptogenic zone and predicting outcome; and
3. Discuss case scenarios where new computational methods could outperform the ECD model.

8:00am Computational Modelling of MEG Epileptiform Discharges  
*Ismail S. Mohamed, MD, FAES, FACNS*

8:05am Equivalent Current Dipole Model: What is the Evidence Behind its Use?  
*Jay Gavvala, MD, MSCI, FACNS, FAES*

8:30am An Overview of Other Computational Analysis Methods  
*Jeffrey R. Tenney, MD, PhD, FACNS*

8:55am Novel Biomarkers for Localization of the Epileptogenic Zone  
*Christos Papdelis, PhD*

9:20am Discussion

# ANNUAL COURSES & ANNUAL MEETING SCIENTIFIC PROGRAM

**SATURDAY, MARCH 1, 2025**

**8:00 – 11:15am**

## **Course: Neurophysiology of Clinical Spells in the ICU: A Case-Based Workshop**

Directors: Zubeda Sheikh, MD, MSCTS, FACNS and Lawrence J. Hirsch, MD, FACNS

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Use clinical, semiologic, and neurophysiological data (EEG/EMG polygraphy) to evaluate motor activity in the ICU to determine epileptic vs non-epileptic nature;
2. Use video-EEG data to diagnose spells in the ICU resulting from changes in cerebral blood flow, pressure, and related physiological processes;
3. Identify ocular/orbital manifestations of seizures to distinguish from non-epileptic nystagmus and other eye movements in an ICU setting; and
4. Identify features of movement disorders distinct from seizures.

8:00am Limb Jerks in the ICU and EEG Correlates  
*Zubeda Sheikh, MD, MSCTS, FACNS*

8:25am Eye Movements in the ICU  
*Sarah E. Schmitt, MD, FACNS*

8:50am Movement Disorders in the ICU  
*Sara Schaefer, MD, MH*

9:15am Discussion

9:30am Break

9:45am Mystery Cases with Audience Interaction and Panel Discussion  
*Lawrence J. Hirsch, MD, FACNS*  
*Selim Benbadis, MD, FACNS*  
*Emily Gilmore, MD, MS, FACNS, FNCS and*  
*Thomas P. Bleck, MD, FACNS*

**9:30 - 9:45am**

## **Coffee Break**

**9:45 – 11:15am CONCURRENT SESSIONS**

## **Criteria and Standards for Reporting Significant Changes in NIOM**

Director: Michael McGarvey, MD, FACNS

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Identify the pathophysiology and neurophysiology for NIOM changes;
2. Identify the current established criteria for a significant change NIOM modalities during surgical procedures; and
3. Explain minimal standards for reporting significant NIOM changes to the surgical team.

9:45am Criteria for Significant NIOM Changes  
*Michael McGarvey, MD, FACNS*

10:15am Neurophysiology and Pathophysiology Related to Significant Changes NIOM of Significant Changes in Intraoperative Monitoring  
*Aditya Joshi, MD*

10:45am Communication of Significant NIOM Changes to the Surgical Team  
*Stanley Skinner, MD, FACNS*

## **Neonatal EEG: - When, How and Why (ACNS/British Society for Clinical Neurophysiology Joint Symposium) SA**

Director: Ronit M. Pressler, PhD, MD, MRCPCH

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. List the indications for neonatal EEG monitoring;
2. Explain the value of a seizure classification and its implication for clinical management; and
3. Recognize the potential impact of a high seizure burden on outcome and being able to discuss the pro and con.

9:45am When to Monitor the Neonatal Brain  
*Ronit M. Pressler, PhD, MD, MRCPCH*

10:10am Why to Monitor the Neonatal Brain  
*Cecil D. Hahn, MD, MPH, FACNS*

10:35am How to Monitor the Neonatal Brain  
*Geraldine Boylan, PhD*

11:00am Discussion

# ANNUAL COURSES & ANNUAL MEETING SCIENTIFIC PROGRAM

**SATURDAY, MARCH 1, 2025**

## Course: Sleep Medicine Year in Review 2025: What Clinical Neurophysiologists Want to Know

Director: Madeleine M. Grigg-Damberger, MD, FACNS

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Discuss latest neurophysiology research shedding light into the complex bidirectional interactions between sleep and epilepsy;
2. Explain the latest developments in the impact of sleep and sleep disordered breathing in neurological disorders; and
3. Discuss advances in diagnosis, evaluation and treatment of central hypersomnias.

9:45am Best Studies on Impact of Sleep in Neurological Disorders  
*Madeleine M. Grigg-Damberger, MD, FACNS*

10:10am Advances Diagnosing and Understanding Central Hypersomnia Disorders  
*Nancy Foldvary-Schaefer, DO, MS*

10:35am Latest Developments in Sleep and Epilepsy  
*Birgit Frauscher, MD, PhD, FACNS*

11:00am Discussion

**11:30am – 1:25pm**

## General Session: Gloor Award Presentation & Lecture | Neurophys Bowl

**1:25 – 3:00pm**

**Lunch**

**1:30 – 3:00pm**

## Program Directors' Symposium: Curriculum Design & Modality-specific CNP Tests: How Much is Too Little and How Much is Too Much?

Directors: Pegah Afra, MD, FACNS and Heidi M. Munger Clary, MD, MPH, FACNS

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Describe the curriculum design and modality-specific volume requirements for stand-alone CNP-EEG, EMG and IOM fellowship programs;
2. Describe the curriculum design and modality-specific volume requirements for CNP-EEG, EMG and IOM fellowship programs as a prelude/follow up to another fellowship year; and
3. Describe the curriculum design and modality-specific volume requirements for CNP-Combined (EEG/EMG, EEG/IOM or other combination) fellowship programs.

1:30pm Introduction

1:35pm Curriculum Design & Modality-specific CNP Tests for EEG-track Fellowships  
*Saurabh R. Sinha, MD, PhD, FACNS*

1:55pm Curriculum Design & Modality-specific CNP Tests for IOM-track Fellowships  
*Mirela Simon, MD, MSc, FACNS*

2:15pm Curriculum Design & Modality-specific CNP Tests for EMG-Track Fellowships  
*Ioannis Karakis, MD, PhD, MSc, FACNS*

2:35pm Curriculum Design & Modality-specific CNP Tests for Combined Fellowships  
*Erik J. Kobylarz, MD, PhD*



# ANNUAL COURSES & ANNUAL MEETING SCIENTIFIC PROGRAM

**SATURDAY, MARCH 1, 2025**

## 3:15 – 4:45pm CONCURRENT SESSIONS

### Course: Approach to Brachial Plexopathy in the EMG Laboratory: A Hands-On Nerve Conduction Study Workshop

Director: Ruple S. Laughlin, MD, FACNS

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Describe nerve conduction studies that may be useful in a patient with brachial plexopathy;
2. Conduct nerve conduction studies that may be of high value in distinguishing a brachial plexopathy from other mimickers such as an upper limb mononeuropathy or cervical radiculopathy; and
3. Learn how to troubleshoot technical issues that may arise in the performance of these advanced nerve conduction studies.

3:15pm Approach to Brachial Plexopathy: The Sensory Studies  
*Ruple S. Laughlin, MD, FACNS*

4:00pm Approach to Brachial Plexopathies: Motor Nerve Conduction Studies  
*Devon I. Rubin, MD, FACNS*

### New and Novel Clinical Applications of Electrocorticography (ECoG) SA

Directors: William O. Tatum, IV, DO, FACNS and Brin Freund, MD

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Describe the indications for RNS and how to approach reviewing and utilizing data from chronic ECoG;
2. Discuss the controversies in using intraoperative ECoG during functional brain mapping and the importance of recording technique; and
3. Describe limitations of scalp EEG in diagnosing nonconvulsive seizures and status epilepticus in the ICU and indications for ECoG in this setting.

3:15pm Innovative Diagnostic and Therapeutic Uses of Chronic ECoG in the Ambulatory Setting  
*Vikram R. Rao, MD, PhD*

3:40pm Controversies and Novel Approaches to Enhancing Intraoperative ECoG  
*Brin Freund, MD*

4:05pm Revealing the Rest of the Iceberg: ECoG in the ICU  
*Brandon Foreman, MD, MS, FACNS*

4:30pm Discussion

### “Multimodal Sacral Nerve Root Monitoring: Maintaining Quality of Life for Our Patients by Preserving Bladder, Bowel, and Sexual Function” SA

Directors: Justin Silverstein, DHSc and Mirela Simon, MD, MSs, FACNSC

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Describe the spinal and supraspinal pathways involved in the control of bladder, bowel and sexual function;
2. Identify reflexes that can investigate these functions that can be performed under anesthesia and in the awake patient; and
3. Conduct intraoperative and perioperative assessment of sacral nerve functions.

3:15pm The Anatomy and Physiology of the Sacral Roots  
*Stanley Skinner, MD, FACNS*

3:40pm Intraoperative Neurophysiology in Sacral Chordoma Surgery  
*Mirela Simon, MD, MSs, FACNSC*

4:05pm The Diagnostic Accuracy of Neuromonitoring for Detecting Postoperative Bowel and Bladder Dysfunction in Spinal Oncology Surgery: A Comparative Analysis of Sacral Reflexes, EAS/EUS Motor Evoked Potentials and EAS/EUS s-EMG  
*Justin Silverstein, DHSc*

4:30pm Discussion

# ANNUAL COURSES & ANNUAL MEETING SCIENTIFIC PROGRAM

**SATURDAY, MARCH 1, 2025**

## **The Use of Clinical Neurophysiology in Underrepresented and Underserved Populations in the USA and Mexico (JIS ACNS/Sociedad Mexicana de Neurofisiología Clínica A.C. Joint Symposium)**

Director: Alejandro Zavala, MD, FACNS

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Identify underrepresented and underserved groups in Mexico and the United States;
2. Describe what are the difficulties and challenges that these populations face in accessing clinical neurophysiologic care; and
3. To propose, using an interactive group format, possible strategies to bring neurophysiologic care to these underserved populations.

3:15pm Introduction and Definitions of Underrepresented and Underserved Populations

*Alejandro Zavala, MD, FACNS*

3:25pm Analyze the Possible Causes of Inadequate Access to Clinical Neurophysiology Care in USA

*Jaime R. López, MD, FACNS*

4:05pm Analyze the Possible Causes of Inadequate Access to Clinical Neurophysiology Care in Mexico

*Samantha Pineda, MD, FACNS*

**4:45– 5:00pm**

**Coffee Break**

**5:00 – 6:30pm CONCURRENT SESSIONS**

## **Exploring Cognitive Mapping: Insights from Stereoelectroencephalography (SEEG) SA**

Director: Ammar Kheder, MD, FACNS

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Describe the principles and applications of cognitive mapping with stereoelectroencephalography (SEEG) in the pre-surgical evaluation of patients with intractable epilepsy;
2. Describe advanced mapping approaches aimed at comprehensively assessing a broader range of cognitive functions, including language, memory, spatial skills, executive function, and socio-emotional processing, to optimize surgical planning and outcomes; and
3. Explore the intersection of emerging technologies with cognitive mapping and how new tools can be integrated into cognitive mapping. Special emphasis will be placed on the potential of virtual reality.

5:00pm Navigating the Brain: Principles and Applications of Cognitive Mapping with SEEG

*Ammar Kheder, MD, FACNS*

5:15pm Practical Approaches to Cognitive Mapping with SEEG

*Daniel Drane, PhD*

5:40pm Connecting Emerging Technologies to Cognitive Mapping

*Nigel P. Pedersen, MD*

6:05pm Integrating Mapping and Imaging Techniques for Enhanced Outcomes

*Thandar Aung, MD, MS*

# ANNUAL COURSES & ANNUAL MEETING SCIENTIFIC PROGRAM

**SATURDAY, MARCH 1, 2025**

## **Course: Introduction to Clinical Magnetoencephalography (MEG) SA**

Director: Jeffrey R. Tenney, MD, PhD, FACNS

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Understand differences between MEG and EEG recordings;
2. Identify the common, evidence-based indications for MEG in epilepsy surgery; and
3. Describe the fundamentals of source localization and interpret a MEG report.

5:00pm Introduction  
*Jeffrey R. Tenney, MD, PhD, FACNS*

5:05pm How is it Different from EEG? – MEG Physics and Physiology  
*Susan Bowyer, PhD*

5:30pm When to Order MEG? - 10 Common, Evidence- Supported Indications for MEG in Epilepsy Surgery  
*Anto I. Bagic, MD, PhD, FACNS*

5:55pm What Should I Expect? – MEG Source Localization and Reporting  
*Allison Kostandy, MD*

6:20pm Discussion

## **Personalization of Intracranial Neuromodulation Treatments in Epilepsy SA**

Directors: Shruti Agashe, MD, MS-BME and Nicholas Gregg, MD

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Describe potential patient- specific biomarkers and targeting in thalamic neuromodulation;
2. Evaluate customization in programming of RNS/DBS devices; and
3. Discuss special considerations for utilization of neuromodulation in pediatrics.

5:00pm Customization in Programming of RNS/DBS Devices  
*Shruti Agashe, MD, MS-BME*

5:30pm Personalization of DBS- Targeting and Biomarkers  
*Nicholas Gregg, MD*

6:00pm Neuromodulation in the Pediatric Population  
*Charuta Joshi, MD, MSCS*

## **Course: Making Sense of Atypical Nerve Conduction Study and Needle EMG Waveforms**

Director: Devon I. Rubin, MD, FACNS

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Explain the significance of atypical waveforms during nerve conduction studies;
2. Recognize atypical EMG waveforms based on patterns of firing of the waveforms; and
3. Describe technical factors that can produce atypical nerve conduction study and needle eMG waveforms.

5:00pm Interpreting Atypical Needle Electromyography Waveforms  
*Devon I. Rubin, MD, FACNS*

5:45pm Interpreting Atypical Nerve Conduction Study Waveforms  
*Christopher Lamb, MD*

# ANNUAL COURSES & ANNUAL MEETING SCIENTIFIC PROGRAM

**SUNDAY, MARCH 2, 2025**

**7:00am – 8:30am**

**Breakfast**

**8:00 – 9:30am CONCURRENT SESSIONS**

## **Genetic and EEG Biomarkers of The Epileptogenic Zone** SA

Directors: Cody L. Nathan, MD and Elizabeth E. Gerard, MD, FACNS

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Describe the role of somatic mosaicism in focal epilepsy and the opportunities and challenges of accessing brain-limited somatic variants;
2. Explain how artificial intelligence can optimize the utility of high-frequency oscillations as a biomarker of the seizure onset zone; and
3. Discuss the potential value of aligning genetic and EEG biomarkers in defining the extent of the epileptogenic zone.

8:00am Introduction

*Cody L. Nathan, MD*

8:05am Somatic Mosaicism and Focal Epilepsy: An Overview

*Elizabeth E. Gerard, MD, FACNS*

8:30am Automated Detection of Intracranial EEG Biomarkers of the Seizure Onset Zone

*Nuri Ince, PhD*

8:55am The Promise of Aligning Genetic and EEG Biomarkers for Surgical Optimization

*Alica Goldman, MD, PhD*

9:20am Discussion

## **Leveraging Neurophysiology Data from Neuromodulation Devices for Enhanced Clinical Decision-Making**

Director: Ezequiel Gleichgerrcht, MD, PhD

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Interpret local field potentials from DBS to improve patient outcomes;
2. Evaluate real-time and chronic use of ECoG data from RNS systems to enhance therapeutic strategies; and
3. Discuss the integration of neuromodulation device data into daily clinical practice and decision-making.

8:00am Optimizing DBS Therapeutics through Local Field Potential Data

*Ezequiel Gleichgerrcht, MD, PhD*

8:25am Utilizing Live ECoG for Enhanced Responsiveness in Neurostimulation

*Anli Liu, MD, MA*

8:50am Chronic ECoG Analysis for Informed Surgical and Therapeutic Decisions

*Danielle Becker, MD, MS, FAES*

9:15am Discussion

## **Signal Optimization in Techniques for Intraoperative Neurophysiologic Monitoring**

Directors: Jaime R. López, MD, FACNS and Lidia Cabañes Martínez, MD, FACNS

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Explain the best settings and methodology to obtain the most robust and reproducible transcranial motor evoked potentials;
2. Describe the best settings and methodology to obtain the most robust and reproducible somatosensory evoked potentials; and
3. Explain the best settings and methodology to obtain the most robust and reproducible reflexes.

8:00am Introduction

8:05am Transcranial Motor Evoked Potentials

*Vizmary J. Montes Pena, MD, MS, CNIM, PhD*

8:30am Reflexes

*Guillermo Martín-Palomeque, MD, FACNS*

8:55am Somatosensory Evoked Potentials

*Aatif M. Husain, MD, FACNS*

9:20am Discussion

# ANNUAL COURSES & ANNUAL MEETING SCIENTIFIC PROGRAM

**SUNDAY, MARCH 2, 2025**

## Status Epilepticus Identification and Management in Special Pediatric Populations **SA**

Directors: France Fung, MD, MSc, FACNS and Nicholas S. Abend, MD, MSCE, FACNS

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Review the clinical and EEG presentations of status epilepticus in neonates and children with genetic versus acute symptomatic etiologies;
2. Discuss risk factors for status epilepticus in neonates and children with genetic versus acute symptomatic etiologies; and
3. Explore treatment strategies for status epilepticus in neonates and children with genetic versus acute symptomatic etiologies.

8:00am Status Epilepticus in Children with Developmental and Epileptic Encephalopathies (DEE)

*France Fung, MD, MSc, FACNS*

8:25am Status Epilepticus in Critically Ill Neonates

*Janette Mailo, MD*

8:50am Status Epilepticus in Critically Ill Children with Febrile Infection-Related Epilepsy Syndrome (FIRES)

*Stuart Tomko, MD*

9:15am Discussion

**9:30 – 9:45am**

**Coffee Break**

**9:45 – 11:15am CONCURRENT SESSIONS**

## Best Practices and Workflow Models for Continuous EEG Monitoring in Critical Care, and their Effect on Patient Outcomes

Director: Magdalena Warzecha, BS, R.EEG/EP, CLTM, NA-CLTM, FASET

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Describe available tools and staffing models essential for effective continuous EEG monitoring;
2. Discuss specific factors crucial for selecting the optimal continuous EEG model for a facility, including personnel requirements, training needs, cost, technology prerequisites, and available vendor services; and
3. Demonstrate understanding of capabilities and limitations of each workflow model.

9:45am Introduction

9:50am The Value of Quantitative EEG in Critical Care Continuous EEG Monitoring

*Susan T. Herman, MD, FACNS*

10:15am The Role of Neuro-Analyst in Critical Care EEG Monitoring and Review of continuous EEG

*Hiba A. Haider, MD, FACNS, FAES*

10:40am Continuous EEG Monitoring- 24/7 Real-Time Technologist and On-Call Physician Coverage

*Anna Serafini, MD*

11:05am Discussion

## Controversies in the Surgical Management of Eloquent Cortex Epilepsies: Resection vs Neuromodulation

Director: Asim Shahid, MD

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Describe the different practices pertaining to epilepsy surgery in the eloquent cortex;
2. Discuss the pros and cons of each of these practices and procedures; and
3. Select patients who are appropriate for one or the other management strategy.

9:45am Introduction

9:50am Case Presentation: Resection

*Ahmad Marashly, MD*

10:15am Case Discussion: Neuromodulation

*Charuta Joshi, MD, MScS*

10:40am Resective Surgery vs Neuromodulation: A Neurosurgeon's Perspective

*Irene Kim, MD*

11:05am Discussion



# ANNUAL COURSES & ANNUAL MEETING SCIENTIFIC PROGRAM

**SUNDAY, MARCH 2, 2025**

## **Modification of Conventional Techniques for Intraoperative Monitoring of Nerve Roots and Peripheral Nerves: Posterior Root Muscle Response and Other Uses of High Voltage Electrical Stimulation**

Directors: Lidia Cabañes Martínez, MD, FACNS and Alejandro Zavala, MD, FACNS

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Discuss the limitations of the standard IOM techniques for intraoperative monitoring of nerve roots and peripheral nerve structures in lumbosacral surgeries;
2. Explain the anatomical, physiological and methodological basis of Posterior/Anterior Motor Root responses and other similar IOM techniques; and
3. Recognize the differences between the different techniques through clinical cases.

9:45am Introduction

9:50am Intraoperative Neurophysiological Monitoring in Lumbosacral Spine and Its Limitations to Detect Peripheral Nerve Injuries  
*Samantha Pineda, MD, FACNS*

10:15am Anterior/Posterior Root Muscle Responses  
*Guillermo Martín-Palomeque, MD, FACNS*

10:40am Clinical Cases  
*Jaime R. López, MD, FACNS*

11:05am Discussion

## **SEEG Implantation Strategy in Epileptic Patients: Illustrative Case Discussions** SA

Director: Jun T. Park, MD, FACNS

Learning Objectives:

At the conclusion of this activity, the learner will be able to:

1. Explain how a hypothesis of epileptogenic zone is formulated using the concepts of the five5 other zones;
2. Discuss how a hypothesis of epileptogenic zone is used to strategize intracerebral electrode placements; and
3. Discuss the concepts of SEEG.

9:45am Illustrative Case Discussion 1  
*Laurence Martineau, MD*

10:10am Illustrative Case Discussion 2  
*Roohi Katyal, MD*

10:35am Illustrative Case Discussion 3  
*Neel Fotedar, MD*

11:00am Introduction & Guiding Principles in the Use of SEEG: Discussion of Epileptogenic Zone & Five5 Other Zones and Their Application to Formulate Hypothesis of Epileptogenic Zone  
*Jun T. Park, MD, FACNS*





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Milwaukee, WI 53202



2025 ACNS ANNUAL MEETING AND COURSES

**BALTIMORE**

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FEBRUARY 27-MARCH 2

