

**Final Program** 

# PRINCIPLES OF CLINICAL NEUROPHYSIOLOGY COURSES

September 27 - 29, 2024

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# ABOUT THE AMERICAN CLINICAL NEUROPHYSIOLOGY SOCIETY

ACNS is a professional association dedicated to fostering excellence in clinical neurophysiology and furthering the understanding of central and peripheral nervous system function in health and disease through education, research, and the provision of a forum for discussion and interaction.



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.

# ACNS OFFICERS AND COUNCIL

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FACNS University of Manitoba Jun T. Park, MD, FAES, FACNS Case Western Reserve University School of Medicine

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#### Journal Editor

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#### **AMA Officer**

Jaime R. Lopez, MD, FACNS Stanford University

# PRINCIPLES OF CLINICAL NEUROPLYSIOLOGY COURSES COMMITTEES

#### COURSE COMMITTEE

#### **Co-Chairs**

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

#### **Co-Chairs-Elect**

Amy Z. Crepeau, MD, FACNS Shavonne Massey, MD, MSCE, FACNS

#### Members

Meriem Bensalem-Owen, MD, FACNS Katie L. Bullinger, MD, PhD, FACNS Maureen P. Carroll, R.EEG/EPT, RPSGT, CNIM

Naiara Garcia-Losarcos, MD Elizabeth Gerard, MD, FACNS Cecil D. Hahn, MD, MPH, FACNS Hiba A. Haider, MD, FACNS, FAES Aline Herlopian, MD Vasileios Kokkinos, PhD, FACNS Leslie Lee, MD, FACNS Jonathan A. Norton, PhD, FACNS Devon I. Rubin, MD, FACNS Iffat Ara Suchita, MD

#### Ex-Officio

FACNS

Adriana Bermeo-Ovalle, MD, FACNS, FAES Ann Hyslop, MD, FACNS Monica P. Islam, MD, FACNS Marcus C. Ng, MD, FRCPC, CSCN,

#### CME COMMITTEE

**Co-Chairs** Ann Hyslop, MD, FACNS Monica P. Islam, MD, FACNS

#### **Co-Chairs-Elect**

Rejean M. Guerriero, DO, FACNS Joel M. Oster, MD, FACNS

#### Members

Pegah Afra, MD, FACNS Kapil Arya, MBBS, FAAP, FANA, FACNS Melissa Asmar, MD Tyson Burghardt, MD Hanan M. El Shakankiry, MD, PhD Brin Freund, MD Elizabeth Gerard, MD, FACNS Abeer Jawdat Hani, MD, FACNS Akio Ikeda, MD, PhD, FACNS Mohammed IIyas, MD, FACNS Fawad A. Khan, MD, FACNS Eliane Kobayashi, MD, PhD Catherine V. Kulick-Soper, MD Jong Woo Lee, MD, PhD, FACNS Xiangping Li, MD Jennifer McKinney, MD, FACNS Yara Mikhaeil-Demo, MD, FACNS Moshe A. Mizrahi, MD, FAAN, FAHA, FACNS

Ismail S. Mohamed, MD, FACNS Iryna Muzyka, MD, FACNS Ika Noviawaty, MD Kimberly Pargeon, MD, FACNS, FAES Jun T. Park, MD, FAES, FACNS Chrystal M. Reed, MD, PhD Maria C. Sam, MD, FACNS Sarah E. Schmitt, MD, FACNS Fahd Sultan, MD, FACNS Courtney J. Wusthoff, MD, MS, FACNS Andrew James Zillgitt, DO, FACNS, FAES

#### Ex-Officio

Adriana Bermeo-Ovalle, MD, FACNS, FAES Dominic Fee, MD, FACNS Ruple S. Laughlin, MD, FACNS Lynn Liu, MD, MS (HPE), FACNS Marcus C. Ng, MD, FRCPC, CSCN, FACNS

#### ACNS EXECUTIVE OFFICE

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# **GENERAL INFORMATION**

The Principles of Clinical Neurophysiology Courses (PCNP) is a virtual event designed to deliver basic and intermediate level content for the ACNS flagship courses, ICU EEG, NIOM and Stereo EEG as well as several specialty short courses. ACNS's educational activities are directed to clinical neurophysiologists, neurologists, neurosurgeons, trainees in these disciplines, technologists and other physicians and researchers who utilize clinical neurophysiologic techniques and knowledge in the diagnosis and management of patients with disorders of the peripheral and central nervous system. Likewise, the courses can serve as a great refresher for those preparing for board exams.

Registration options include ala carte short courses, day pass for the flagship courses (ICU EEG, NIOM and Stereo EEG) or an all-access pass, which includes attendance to all courses. Register by 11:59pm ET on Thursday, September 26 to receive a link to the virtual platform and join the live courses! All registration options include access to on-demand viewing October 7-21, 2024.

**New this year** – "PCNP Replay," a second on-demand iteration of the flagship courses in ICU EEG, NIOM, and Stereo EEG, will be offered February 3 – 17, 2025 as a refresher ahead of the ACNS 2025 Annual Meeting & Courses.

IMPORTANT DATES	
Event Registration Deadline	September 26, 2024
Registration Cancellation Deadline	September 27, 2024
CME Certificate Site Opens	September 29, 2024
Access to On-Demand Recordings and Handouts	October 7 - 21, 2024
CME Claim Deadline	October 31, 2024

#### **MEETING FORMAT**

PCNP will take place Friday, September 27 – Sunday, September 29, 12:00 – 3:30pm ET. Sessions will be recorded and available on-demand for two weeks after the meeting, October 7 - 21, 2024.

PCNP Replay, a second on-demand iteration of the flagship courses in ICU EEG, NIOM, and Stereo EEG, will be offered February 3 - 17, 2025 as a refresher ahead of the ACNS 2025 Annual Meeting & Courses. PCNP All-Access Pass registrants may choose to add-on access to Replay for an additional fee (see chart).

#### VIRTUAL PLATFORM

Registered delegates will receive an email on Wednesday, September 25, 2024 from info@acns.org with access to the virtual platform. Please do not share this email with anyone as it is unique to you. Attendees may only be logged in via one device at a time, per individual registration. Please add info@acns.org to your "safe senders" list to ensure you don't miss the email. Be sure to check your junk/ spam folder if you do not receive the email by 12pm on September 25.

Please note, the virtual platform is compatible with Google Chrome, Firefox, Safari and Microsoft Edge web browsers. The platform does not support Internet Explorer.

#### **COURSE HANDOUTS**

A separate email will be sent from info@acns.org on September 25 with access instructions to the available course handouts. Handouts are available until November 28. If you do not receive an email by September 26, please contact info@acns.org.

Those who register between September 25 - 26 will receive the handout access email on Friday, September 27.

#### PHOTOGRAPHY AND RECORDING POLICY

Photography, video or audio recording (including screen capture) of these courses, materials, speaker likenesses or ACNS graphics without written permission from ACNS is strictly prohibited. Please note that photographs and video taken by or on behalf of ACNS shall be property of ACNS.

#### PRIVACY POLICY

The American Clinical Neurophysiology Society (ACNS) has a strong commitment to privacy. This statement outlines the policies and procedures concerning information gathering and dissemination practices related to www.acns.org, as well as member, meeting attendee, and sponsor/supporter (collectively, "users") data. This policy is in accordance with the European General Data Protection Regulations (GDPR). Please review the full policy <u>here</u>.

#### MEETING CONDUCT, SAFETY, AND RESPONSIBILITY POLICY

The American Clinical Neurophysiology Society (ACNS) is committed to providing a safe, productive, and welcoming environment for all meeting participants and ACNS/EDI staff. All participants, including, but not limited to, attendees, speakers, volunteers, exhibitors, ACNS/EDI staff, service providers, and others are expected to abide by the ACNS Meeting Safety & Responsibility Policy. This Policy applies to all ACNS meeting-related events, online and inperson, including those sponsored by organizations other than ACNS but held in conjunction with ACNS events, in public or private facilities.

#### **Unacceptable Behavior**

- Harassment, intimidation, or discrimination in any form.
- Physical or verbal abuse of any attendee, speaker, volunteer, exhibitor, ACNS/EDI staff member, service provider, or other meeting guest.
- Examples of unacceptable behavior include, but are not limited to, verbal comments related to gender, sexual orientation, disability, physical appearance, body size, race, religion, national origin, inappropriate use of nudity and/or sexual images in public spaces or in presentations, or threatening or stalking any attendee, speaker, volunteer, exhibitor, ACNS/ EDI staff member, service provider, or other meeting guest.
- Disruption of presentations at sessions, in the exhibit hall, or at other events organized by ACNS at the meeting venue, hotels, or other ACNS-contracted facilities.
- ACNS has zero-tolerance for any form of discrimination or harassment, including but not limited to sexual harassment by participants or our staff at our meetings. If you experience harassment or hear of any incidents of unacceptable behavior, ACNS asks that you inform the ACNS President or ACNS Executive Director Megan M. Hille, CMP, CAE (mhille@acns.org) so that appropriate action may be taken.
- ACNS reserves the right to take any action deemed necessary and appropriate, including immediate removal from the meeting without warning or refund, in response to any incident of unacceptable behavior, and ACNS reserves the right to prohibit attendance at any future meeting.

#### ABOUT THE PRINCIPLES OF CLINICAL NEUROPHYSIOLOGY

The 2024 Principles of Clinical Neurophysiology Courses are designed around the general practice of clinical neurophysiology. Educational activities will cover basic and intermediate methodologies.

#### 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 neurophysiologic techniques and knowledge in the diagnosis and management of patients with disorders of the peripheral and central nervous system.

#### **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 Principles of Clinical Neurophysiology for the maximum number of AMA PRA Category 1 Credit(s)<sup>m</sup> indicated below:

#### Autonomic Neurophysiology:

1.50 AMA PRA Category 1 Credits™

#### Electromyography and Nerve Conduction Studies (EMG / NCS)

**Part I:** 1.50 AMA PRA Category 1 Credits<sup>™</sup> **Part II:** 1.50 AMA PRA Category 1 Credits<sup>™</sup>

#### **Evoked Potentials:**

1.50 AMA PRA Category 1 Credits™

#### Intensive Care Unit EEG Monitoring (ICU EEG)

Part I: 1.50 AMA PRA Category 1 Credits™ Part II: 1.50 AMA PRA Category 1 Credits™ Part III: 1.50 AMA PRA Category 1 Credits™ Part IV: 1.50 AMA PRA Category 1 Credits™

#### Neurologic Intraoperative Monitoring (NIOM)

Part I: 1.50 AMA PRA Category 1 Credits™ Part II: 1.50 AMA PRA Category 1 Credits™ Part III: 1.50 AMA PRA Category 1 Credits™ Part IV: 1.50 AMA PRA Category 1 Credits™

#### Sleep:

1.50 AMA PRA Category 1 Credits™

#### Stereo-Electroencephalography (Stereo EEG)

Part I: 1.50 AMA PRA Category 1 Credits™ Part II: 1.50 AMA PRA Category 1 Credits™ Part III: 1.50 AMA PRA Category 1 Credits™ Part IV: 1.50 AMA PRA Category 1 Credits™

#### Video- Electroencephalography (Video EEG):

1.50 AMA PRA Category 1 Credits™

The number of credits above also constitutes the estimated time to complete each activity.

#### ASET CEUS

ASET - The Neurodiagnostic Society has granted ASET Continuing Education Units [ASET CEUs] for this program.Such crediting, however, should not be construed by program participants as an endorsement of any type of instruments or supplies mentioned or involved in these presentations.

The courses have been approved for 27 ASET-CEUs total.

#### LEARNING OBJECTIVES :

#### Autonomic Neurophysioogy:

At the conclusion of this course, participants should be able to:

- 1. Understand the basic neuroanatomy and physiology of autonomic function;
- 2. Recognize the indications, protocol, normal responses, and limitations of clinical autonomic testing; and
- Develop a plan and utilize autonomic testing in patients with various types of autonomic disorders.

# Electromyography and Nerve Conduction Studies (EMG/NCS) - Parts I and II

At the conclusion of this course, participants should be able to:

- Describe the basic concepts of nerve conduction studies and needle electromyography, the abnormalities that can occur in different categories of disorders, and the pitfalls that may occur during the performance of the studies;
- 2. Review the approach, findings, and limitations of electrodiagnostic (EDX) testing in patients with commonly referred diagnoses through case based teaching; and
- 3. Explain how to modify a study by obtaining real time data through case based learning.

#### **Evoked Potentials**

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

- 1. Describe the fundamentals of evoked potential testing including the technical aspects of stimulation, recording, and signal generation;
- 2. Identify the components of visual, somatosensory, and brainstem auditory evoked potentials and their clinical significance; and
- 3. Classify EP findings as normal or abnormal, and provide an accurate interpretation/guidance of the findings when the study is abnormal

#### LEARNING OBJECTIVES: CONTINUED

#### Intensive Care Unit EEG Monitoring (ICU EEG) – Parts I, II, III and IV

At the conclusion of this course, participants should be able to:

- 1. Recognize common indications for CEEG in the ICU setting in neonates, children, and adults;
- 2. Evaluate the cost-effectiveness of continuous EEG and the variability in practices in resourceful vs. resource-limited settings;
- 3. Apply ACNS terminology to the common ICU EEG findings;
- Interpret EEG patterns encountered in the ICU, including seizures, periodic and rhythmic patterns, and as well as background features important for prognosis and management;
- 5. Select appropriately-dosed treatment options for seizures and status epilepticus, and recognize the nuances in approach to treatment based on EEG findings in non-conclusive SE, or with rhythmic/periodic patterns that lie on the ictal interictal continuum;
- 6. Describe the findings of ICU EEG monitoring specific to the pediatric population and neonates;
- 7. Utilize quantitative EEG methods to see long-term trends, screen for seizures rapidly, and to detect signs of ischemia;
- 8. Describe the value and limitations of EEG monitoring to predict neurologic outcomes in hypoxic-ischemic encephalopathy; and
- 9. Integrate the scalp EEG data with additional physiologic data in the ICU to interpret EEG patterns of uncertain significance.

# Neurophysiologic Intraoperative Monitoring (NIOM) – Part I, II, III and IV

- At the conclusion of this course, participants should be able to:
- 1. Describe basic modalities used in NIOM;
- 2. Recognize the appropriate methods and indications for a variety of common NIOM techniques;
- 3. Explain a variety of NIOM case presentations and interpretation of neurophysiologic data; and
- 4. Recognize some of the technical challenges and limitations of performing and interpreting NIOM studies.

#### Sleep

At the conclusion of this course, participants should be able to:

- 1. Identify the appropriate clinical use of sleep diagnostic testing;
- Discuss the clinical and neurophysiologic manifestations of sleep-related movement disorders and demonstrate how to tailor evaluations to optimize recordings; and
- 3. Understand the differential diagnosis and evaluation of REM sleep behavior disorder and its prognostic implications.

#### Stereo-Encephalography (Stereo EEG) – Parts I, II, III, and IV

At the conclusion of this course, participants should be able to:

- 1. Distinguish the basic principles and techniques of SEEG;
- 2. Understand the indications and patient selection criteria for SEEG;
- 3. Recognize the role of SEEG in the diagnosis and management of epilepsy;
- 4. Demonstrate proficiency in SEEG electrode implantation techniques and interpretation of SEEG recordings; and
- 5. Identify the approach to cortical stimulation and functional mapping.

#### Video- Electroencephalography (Video EEG)

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

- 1. Discuss the goals, limitations and safety considerations of videoEEG;
- 2. Distinguish between the clinical characteristics of nonepileptic events and epileptic seizures; and
- 3. Recognize EEG features and clinical semiology that assist in localizing seizures onset.

#### CONFLICT OF INTEREST DISCLOSURES

#### POLICY ON FINANCIAL DISCLOSURES

It is the policy of ACNS to ensure balance, independence, objectivity and scientific rigor in all its individually sponsored or jointly sponsored educational programs. In order to comply with the ACCME's Updated Standards for Commercial Support, ACNS requires that anyone who is in a position to control the content of an educational activity discloses all relevant financial relationships with any ineligible company pertaining to the content of the presentation. Should it be determined that a conflict of interest exists as a result of a financial relationship of a planner of the CME activity, the planner must recuse himself or herself from the planning for that activity or relevant portion of that activity. All presentations for which the presenter disclosed a potential conflict of interest are peer reviewed by two members of the ACNS CME Committee with no relationships. If bias is found, the presenter is asked to make changes to the presentation and it is re-reviewed for bias before final approval. Refusal to disclose a conflict or the inability to mitigate an identified conflict precludes participation in the CME activity.

Complete conflict of interest disclosure information is printed in the final program for the activity. A learner may request additional information regarding the nature of a planner or speaker's disclosure if "No Relevant Relationships" has been indicated below. To request additional information, contact the ACNS Executive office at info@acns.org.

	DALE	
FULL NAME	ROLE	FINANCIAL RELATIONSHIPS
Chifaou Abdallah, MD	Speaker	No Relationships
Nicholas S. Abend, MD, MSCE, FACNS	Speaker	No Relationships
Pegah Afra, MD, FACNS	Reviewer	Livanova (a); Marinus Pharmaceuticals (a); Stratstim (a); Xenon Pharmaceuticals (a)
Edilberto Amorim, MD	Speaker	No Relationships
Ravindra Arya, MD, DM, FACNS	Speaker, Reviewer	No Relationships
Kapil Arya, MBBS, FAAP, FANA, FACNS	Planner	Genentech ( e); Novartis Pharmacuticals (e)
Melissa Asmar, MD	Reviewer	No Relationships
Grayson Beecher, MD, FRCPC	Speaker	No Relationships
Meriem Bensalem-Owen, MD, FACNS	Planner	NeuroPace (a); UCB (a); Xenon Pharmaceuticals (a)
Adriana Bermeo-Ovalle, MD, FACNS, FAES	Planner, Reviewer	No Relationships
María Bruzzone Giraldez, MD, MSCR, FACNS	Speaker	No Relationships
Katie L. Bullinger, MD, PhD, FACNS	Planner, Speaker	No Relationships
Tyon Burghardt, MD	Reviewer	No Relationships
David Burkholder, MD	Planner	Longboard Pharmaceuticals (a)
Maureen P. Carroll, REEG, EPT, RPSGT, CNIM	Planner	No Relationships
Lauren Cazares	Planner	No Relationships
Felix Chang, MD	Speaker	No Relationships
Denise Chen, MD	Speaker	No Relationships
Pitcha Chompoopong, MD	Planner, Speaker	No Relationships
J.P. Clark, PhD, CNIM, DABNM	Speaker	Theranova (b, c)
Amy Crepeau, MD, FACNS	Planner	No Relationships
Frank W. Drislane, MD, FACNS	Planner	Eli Lilly (b, f)
Hanan M. El Shakankiry, MD, PhD	Reviewer	No Relationships
Ronald Emerson, MD, FACNS	Speaker	Amgn (c); Bristol Meyers Squibb (c); Eli Lilly (c); General Electric (c); Ice Neurosystems
		(c); Johnson & Johnson (c); Neuropace (c); Pfizer (c); Quality Care Products (c);
		Thermo Fisher (c)
Dominic Fee, MD, FACNS	Reviewer	No Relationships
Isabel Fernandez-Conejero, MD	Speaker	No Relationships
Michael Fong, MBBS	Speaker	No Relationships

a. Grant/Research Support; b. Consultant; c. Stock Shareholder (self-managed); d. Speaker's Bureau; e. Advisory Board or Panel; f. Other Financial or Material Support

	DALE	
FULL NAME	ROLE	FINANCIAL RELATIONSHIPS
Brandon Foreman, MD, MS, FACNS, FNCS	Speaker	Ceribell, Inc. (b); Marinus Pharmaceuticals (a, b, e); Natus Medical Inc. (f); UCB Pharmaceuticals (d, e)
Birgit Frauscher, MD, PhD, FACNS	Speaker	Eisai Canada (a, d, e); Natus Medical Incorporated (d); Paladin Canada (d, e); UNEEG (e)
Brin Freund, MD	Reviewer	No Relationships
France Fung, MD, MSc, FACNS	Speaker	No Relationships
Naiara Garcia-Losarcos, MD	Planner	No Relationships
Nicolas Gaspard, MD, PhD, FACNS	Speaker	Bioserenity (e)
Elizabeth E. Gerard, MD, FACNS	Planner, Reviewer	Eisai Inc. (a); Xenon Pharmaceuticals (a, e)
Andres Gonzalez, MD, MMM, FACNS	Speaker	No Relationships
Jorge A. Gonzalez-Martinez, MD	Speaker	No Relationships
Rejean Guerriero, DO, FACNS	Reviewer	No Relationships
Cecil D Hahn, MD, MPH, FACNS	Planner	Holberg EEG (b); Takeda (a, b, e); UCB Biopharma SPRL (a, b)
Hiba A. Haider, MD, FACNS, FAES	Speaker	No Relationships
Abeer J. Hani, MD, FACNS	Reviewer	No Relationships
Aline Herlopian, MD	Planner	Medtronic (b); Natus Medical Inc. (d); UCB Pharma (b)
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E. Matthew Hoffman, DO, PhD, FACNS	Planner	No Relationships
Jennifer Hopp, MD, FACNS	Speaker	No Relationships
Aatif Husain, MD, FACNS	Speaker	PranaQ (b); uniQure (e)
AyatallahF. Hussein, MD	Speaker	No Relationships
Ann Hyslop, MD, FACNS	Planner, Reviewer	Neurelis (d, e)
Akio Ikeda, MD, PhD, FACNS	Reviewer	DAIICHI SANKYO HEALTHCARE CO., LTD (d) Eisai Pharmaceuticals (d); Eli Lilly (a); NIHON KOHDEN CORPORATION (a); Ricoh Company Ltd. (a); Sumitomo Pharma (d); UCB Japan Co (a)
Mohammed Ilyas, MD, FACNS	Reviewer	No Relationships
Muna Irfan, MD	Speaker	No Relationships
Monica P. Islam, MD, FACNS	Planner, Reviewer	No Relationships
Jackie Jacobi, MD	Speaker	No Relationships
Mithri Junna, MD	Planner, Speaker	No Relationships
Giridhar Kalamangalam, MD, DPhil, FACNS	Speaker	No Relationships
Ioannis Karakis, MD, PhD, MSc, FACNS	Planner	Accure (b); Ceribell (b); Eisai (b); Gilead (b); Marinus (b); Neurelis (b); Neuropace (b) Rafa (b); UCB (b); Vial Health (b); Embrace (b); Smartwatch (b); Epitel (b); Neuro- Electrics (b); Sam-E Device Loans (b); GSK (b)
Mohamed Kazamel, MD	Speaker	No Relationships
Fawad Khan, MD, FACNS	Reviewer	Eisai (b); Livanova (b); Marinus Pharmaceuticals (b); Marinus Pharmaceuticals (a); Natus Medical Inc. (d); SK Life Science (d); Stratus (d); UCB (b)
Eliane Kobayashi, MD, PhD	Reviewer	Jazz Pharmaceuticals (e); Paladin Laboratories (a, e); UCB Canada (a)
Vasileios Kokkinos, PhD, FACNS	Planner	No Relationships
Catherine V. Kulick-Soper, MD	Reviewer	Epitel (b)
Ruple S. Laughlin, MD, FACNS	Planner	No Relationships
Jong Woo Lee, MD, PhD, FACNS	Reviewer	SK Life Science (a); Soterya, Inc. (e, f)
Leslie Lee, MD, FACNS	Planner	No Relationships

a. Grant/Research Support; b. Consultant; c. Stock Shareholder (self-managed); d. Speaker's Bureau; e. Advisory Board or Panel; f. Other Financial or Material Support

FULL NAME	ROLE	FINANCIAL RELATIONSHIPS
Alan D. Legatt, MD, PhD, FACNS	Speaker	Johnson & Johnson (c); Merck (c); Pfizer (c); Proctor & Gamble (c)
Xiangping Li, MD	Reviewer	No Relationships
Lynn Liu, MD, MS, FACNS	Planner, Reviewer	No Relationships
Jaime López, MD, FACNS	Planner	Intuitive Surgical (b)
Eric J. Mariuma, MD	Speaker	No Relationships
Shavonne Massey, MD, MSCE, FACNS	Speaker	Sun Pharmaceuticals (b)
Stuart McCarter, MD	Speaker	No Relationships
Jennifer L. McKinney, MD, FACNS	Reviewer	No Relationships
Nancy McNamara, MD	Speaker	No Relationships
Yara Mikhaeil Demo, MD, FACNS	Reviewer	No Relationships
Moshe A. Mizrahi, MD, FAAN, FAHA, FACNS	Reviewer	No Relationships
Ismail S. Mohamed, MD, FAES, FACNS	Reviewer	Jazz Pharmaceuticals (a); Marinus Pharmaceuticals (a)
Michelle Mora, DO, FACNS	Speaker	No Relationships
Iryna Muzyka, MD, FACNS	Reviewer	No Relationships
Marcus C. Ng, MD, FRCPC, CSCN (EEG), FACNS	Planner, Reviewer	Eisai Canada (a, d); Paladin Canada (e); UCB Canada (d)
Jonathan A. Norton, PhD, FACNS	Planner	Abbott: Consultant (Ongoing) Abbott: Speaker's Bureau (Ongoing)
lka Noviawaty, MD	Reviewer	No Relationships
Tatsuya Oishi, MD	Planner, Speaker	No Relationships
Joel M. Oster, MD, FACNS	Reviewer	No Relationships
Kimberly Pargeon, MD, FACNS, FAES	Reviewer	No Relationships
Jun Park, MD, FACNS	Reviewer	Catalyst (e); Neurelis Pharmaceuticals (d)
Ferenc Rabai, MD	Speaker	No Relationships
Ramya Raghupathi, MD	Planner	No Relationships
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Andrea O. Rossetti, MD	Speaker	No Relationships
Elayna Rubens, MD, FACNS	Planner	No Relationships
Devon Rubin, MD, FACNS	Planner	No Relationships
Philippe Ryvlin, MD, PhD	Speaker	No Relationships
Maria C. Sam, MD, FACNS	Reviewer	No Relationships
Ashley Santilli, MD	Speaker	No Relationships
Greg A. Schaublin, MD	Speaker	No Relationships
Sarah Schmitt, MD, FACNS	Reviewer	No Relationships
Stephan Schuele, MD, MPH, FACNS	Speaker	Jazz Pharmaceuticals (d, e); Neurelis Pharmaceuticals (d); Life Science (d); UCB Biopharma (e)
Kathleen Seidel, MD, PhD	Speaker	No Relationships
Olga Selioutski, DO, FACNS, FAES, FACN	Planner	No Relationships
Deborah Setter, MD, PhD	Speaker	No Relationships
Zubeda Sheikh, MD, MSCTS, FACNS	Planner	No Relationships
Kamal Shouman, MD	Speaker	No Relationships
Rajdeep Singh, MD, MS, FACNS	Planner	Catalyst (e); Xenon Pharmaceuticals (e)
Saurabh R. Sinha, MD, PhD, FACNS	Speaker	Neumoratx (b)

a. Grant/Research Support; b. Consultant; c. Stock Shareholder (self-managed); d. Speaker's Bureau; e. Advisory Board or Panel; f. Other Financial or Material Support

FULL NAME	ROLE	FINANCIAL RELATIONSHIPS
Michael Skolka, MD	Planner, Speaker	No Relationships
Aaron Struck, MD, FACNS	Speaker	Ceribell Corporation (b)
Iffat Ara Suchita, MD	Planner	No Relationships
Fahd Sultan, MD, FACNS	Reviewer	No Relationships
Andrea Szelenyi, MD, PhD	Speaker	Arkana Co., Emmendingen, Germany (d) Inomed Co, Germany (e)
Lydia Wolkiewicz, MD	Speaker	No Relationships
Shasha Wu, MD, PhD	Speaker	No Relationships
Courtney J. Wusthoff, MD, MS, FACNS	Planner, Reviewer	Medicure (a)
Sahar F. Zafar, MD, MSc	Speaker	Marinus Pharmaceuticals (d)
Andrew Zillgitt, DO, FAES, FACNS	Reviewer	Catalyst (d, e); Jazz Pharmaceuticals (d); SK Life Science (d); UCB (d, e)

# SCHEDULE-AT-A-GLANCE All times are listed in ET.

FRIDAY, SEPTEMBER 27, 2024				
	Video EEG			
	Course Director: Katie L. Bullinger, MD, PhD, FACNS			
12:00 – 1:30 PM ET	Evoked Potentials			
	Course Director: Tatsuya Oishi, MD			
	EMG / NCS Part I			
	Course Director: Michael Skolka, MD			
	Autonomic Neurophysiology Course Director: Pitcha Chompoopong, MD			
2.00 2.20 DM FT	Sleep			
2:00 – 3:30 PM ET	Course Director: Mithri R. Junna, MD			
	EMG/NCS Part II			
	Course Director: Michael Skolka, MD			
3:45 – 5:00 PM ET	Business of CNP Special Interest Group (SIG) Meet-Up			
SATURDAY, SEPTEMBER 28, 20	024			
	ICU EEG Part I			
	Course Directors: Frank W. Drislane, MD, FACNS and Zubeda B. Sheikh, MD, MSCTS, FACN			
12:00 – 1:30 PM ETw	NIOM Part I			
12.00 1.301 M EIW	Course Directors: E. Matthew Hoffman, DO, PhD, FACNS and Elayna Rubens, MD, FACNS			
	<b>Stereo EEG Part I</b> Course Directors: David B. Burkholder, MD and Ramya Raghupathi, MD			
	ICU EEG Part II			
	Course Directors: Frank W. Drislane, MD, FACNS and Zubeda B. Sheikh, MD, MSCTS, FACNS			
2:00 – 3:30 PM ET	NIOM Part II			
2.00 - 3.30 FIM LT	Course Directors: E. Matthew Hoffman, DO, PhD, FACNS and Elayna Rubens, MD, FACNS			
	Stereo EEG Part II			
	Course Directors: David B. Burkholder, MD and Ramya Raghupathi, MD			
3:45 – 5:00 PM ET	Special Interest Groups (SIG) Meet-Up			
SUNDAY, SEPTEMBER 29, 202	4			
	ICU EEG Monitoring Part III			
	Course Directors: Frank W. Drislane, MD, FACNS and Zubeda B. Sheikh, MD, MSCTS, FACNS			
12:00 – 1:30 PM ET	NIOM Part III			
	Course Directors: E. Matthew Hoffman, DO, PhD, FACNS and Elayna Rubens, MD, FACNS			
	Stereo EEG Part III Course Directors: David B. Burkholder, MD and Ramya Raghupathi, MD			
	ICU EEG Monitoring Part IV			
2:00 – 3:30 PM ET	Course Directors: Frank W. Drislane, MD, FACNS and Zubeda B. Sheikh, MD, MSCTS, FACNS			
	NIOM Part IV			
	Course Directors: E. Matthew Hoffman, DO, PhD, FACNS and Elayna Rubens, MD, FACNS			
	Stereo EEG Part IV			
	Course Directors: David B. Burkholder, MD and Ramya Raghupathi, MD			

# COURSE AGENDAS

#### FRIDAY, SEPTEMBER 27, 2024

#### 12:00 – 1:30 PM

Video EEG	
Course Directo	r: Katie L. Bullinger, MD, PhD, FACNS
12:00 PM	EMU: Staffing, Technical Considerations and Safety Jennifer Hopp, MD
12:25 PM	Diagnosing Seizures and Spells using Video EEG <i>Denise Chen, MD</i>
12:50 PM	Presurgical Epilepsy Evaluation using Video EEG <i>Katie L. Bullinger, MD, PhD, FACNS</i>
1:15 PM	Discussion

#### **Evoked Potentials**

12:00 PM	Somatosensory Evoked Potentials (SSEPs) <i>Tatsuya Oishi, MD</i>
12:25 PM	Brainstem Auditory Evoked Potentials (BAEPs) Ayat Allah Hussein, MD
12:50 PM	Visual Evoked Potentials (VEPs)

Aatif M. Husain, MD, FACNS 1:15 PM Discussion

#### EMG / NCS – Part I

Course Director: Michael Skolka, MD

12:00 PM	NCS: Introduction to Waveform Parameters Jaclyn E. Jacobi, MD
12:25 PM	NCS: Common Mononeuropathies & Polyneuropathies <i>Pitcha Chompoopong, MD</i>
12:50 PM	NCS: Artifacts and Troubleshooting Deborah Setter, MD, PhD
1:15 PM	Discussion

#### 2:00 - 3:30 PM

#### Autonomic Neurophysiology

#### Course Director: Pitcha Chompoopong, MD

2:00 PM	Evaluation of Sudomotor Function: QSART and TST <i>Kamal Shouman, MD</i>
2:25 PM	Evaluation of Cardiovagal Function: HR Response to Deep Breathing and Valsalva Ratio <i>Mohamed Kazamel, MD</i>
2:50 PM	Evaluation of Adrenergic Function: BP Response to Valsalva and Tilt <i>Pitcha Chompoopong, MD</i>
3:15 PM	Discussion

#### Sleep

Course Director: Mithri R. Junna, MD	
2:00 PM	Sleep Diagnostic Testing <i>Mithri Junna, MD</i>
2:25 PM	Neurophysiologic Differentiation of Sleep-Related Movement Disorders <i>Muna Irfan, MD</i>
2:50 PM	Neurophysiology of REM Sleep Behavior Disorder Stuart McCarter, MD
3:15 PM	Discussion

#### EMG / NCS – Part II

Course Director: Michael Skolka, MD

2:00 PM	EMG: Spontaneous Activity - Cases Grayson Beecher, MD, FRCPC
2:25 PM	EMG: MUP Analysis and Recruitment - Cases Ashley Santilli, MD
2:50 PM	EMG: Designing A Study - Cases <i>Michael Skolka, MD</i>
3:15 PM	Discussion

# COURSE AGENDAS - ICU EEG MONITORING

#### SATURDAY, SEPTEMBER 28, 2024

#### 12:00 - 1:30 PM

#### ICU EEG Monitoring – Part I

Course Co-Directors: Frank W. Drislane, MD, FACNS and Zubeda B. Sheikh, MD, MSCTS, FACNS

- 12:00 PM Patient Selection, Personnel and Equipment Hiba A. Haider, MD, FACNS, FAES
- 12:25 PM Is ICU EEG Monitoring Worth the Cost and Resources? Nicholas S. Abend, MD, MSCE, FACNS
- 12:50 PM Electrographic Seizures & Status Epilepticus and Outcomes? Nicolas Gaspard, MD, PhD, FACNS
- 1:15 PM Discussion

#### 2:00 - 3:30 PM

#### ICU EEG Monitoring – Part II

*Course Co-Directors: Frank W. Drislane, MD, FACNS and Zubeda B. Sheikh, MD, MSCTS, FACNS* 

- 2:00 PM Introduction to the ACNS Critical Care EEG Terminology Michael W.K. Fong, BSc, MBBS, FRACP
- 2:25 PM Seizure Prediction and the Ictal-Interictal Continuum *Aaron F. Struck, MD, FACNS*
- 2:50 PM Case-Based Approach to Neonatal ICU EEG Monitoring Shavonne Massey, MD, MSCE, FACNS
- 3:15 PM Discussion

#### SUNDAY, SEPTEMBER 29, 2024

#### 12:00 - 1:30 PM

#### ICU EEG Monitoring – Part III

Course Co-Directors: Frank W. Drislane, MD, FACNS and Zubeda B. Sheikh, MD, MSCTS, FACNS

- 12:00 PM Critical Care EEG in Resource Limited Settings Andrea O. Rossetti, MD
   12:25 PM Seizure Prediction and Targeted EEG Monitoring in the Pediatric ICU France W. Fung, MD, MSc, FACNS
   12:50 PM Hypoxic Ischemic Brain Injury - Seizures and Outcome Prediction Edilberto Amorim, MD
- 1:15 PM Discussion

#### 2:00 - 3:30 PM

#### ICU EEG Monitoring – Part IV

Course Co-Directors: Frank W. Drislane, MD, FACNS and Zubeda B. Sheikh, MD, MSCTS, FACNS

2:00 PM	Multimodal Monitoring: Role of EEG and QEEG Sahar F. Zafar, MD
2:25 PM	Medication Associated EEG Changes in the ICU Maria J. Bruzzone Giraldez, MD, FACNS
2:50 PM	Quantitative EEG Basics with Cases Brandon Foreman, MD, MS, FACNS
3:15 PM	Discussion

## COURSE AGENDAS - NIOM

#### SATURDAY, SEPTEMBER 28, 2024

#### 12:00 - 1:30 PM

NIUM – Pa	art i
Course Co-Di MD, FACNS	irectors: E. Matthew Hoffman, DO, PhD, FACNS and Elayna Rubens,
12:00 PM	Intraoperative SEP Andres A. Gonzalez, MD, MMM, FACNS
12:25 PM	Intraoperative MEP + D Waves J.P. Clark, III, PhD, CNIM, DABNM
12:50 PM	Intraoperative EMG Eric J. Mariuma, MD
1:15 PM	Discussion

#### NIOM - Part I

#### 2:00 – 3:30 PM

3:15 PM

 NIOM – Part II

 Course Co-Directors: E. Matthew Hoffman, DO, PhD, FACNS and Elayna Rubens,

 MD, FACNS

 2:00 PM
 BAEP Monitoring

 Alan D. Legatt, MD, PhD, FACNS

 2:25 PM
 CN Monitoring: EMG and Corticobulbar MEPs

 Isabel Fernandez-Conejero, MD

 2:50 PM
 Posterior Fossa Case

Tatsuya Oishi, MD Discussion

#### SUNDAY, SEPTEMBER 29, 2024

#### 12:00 - 1:30 PM

#### NIOM – Part III

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

12:00 PM	EEG <i>Michelle Mora, DO</i>
12:25 PM	Anesthesia <i>Ferenc Rabai, MD</i>
12:50 PM	Cerebrovascular Cases <i>Felix Chang, MD</i>
1:15 PM	Discussion

#### 2:00 – 3:30 PM

# NIOM – Part IV

Course Co-Directors E. Matthew Hoffman, DO, PhD, FACNS and Elayna Rubens,<br/>MD, FACNS2:00 PMSpine Monitoring<br/>Ronald Emerson, MD, FACNS2:25 PMSpine Case Discussion<br/>Greg A. Schaublin, MD2:40 PMSupratentorial Sensory & Motor Mapping<br/>Kathleen Seidel, MD, PhD3:05 PMSupratentorial Tumor Case<br/>Andrea Szelenyi, MD, PhD

3:20 PM Discussion

# COURSE AGENDAS - STEREO EEG

#### SATURDAY, SEPTEMBER 28, 2024

#### 12:00 - 1:30 PM

# Stereo EEG – Part I: Pre-Implant Preparation Course Co-Directors: David B. Burkholder, MD and Ramya Raghupathi, MD 12:00 PM Basic Principles of SEEG Electrode Placement Giridhar P. Kalamangalam, MD, DPhil, FACNS 12:25 PM Caveats and Limitations of SEEG

12.231111	Philippe Ryvlin, MD, PhD
12:50 PM	Pediatric Considerations Nancy A. McNamara, MD
1:15 PM	Discussion

#### 2:00 - 3:30 PM

# Discussion

# Stereo EEG – Part II: Implantation and Monitoring Course Co-Directors: David B. Burkholder, MD and Ramya Raghupathi, MD 2:00 – 3:30 PM Electrode Placement Techniques 2:00 PM Electrode Placement Techniques Jorge A. Gonzalez-Martinez, MD Jorge A. Gonzalez-Martinez, MD 2:25 PM Case(s) - Implantation Jorge A. Gonzalez-Martinez, MD Jorge A. Gonzalez-Martinez, MD 2:40 PM Normal, Abnormal and Ictal SEEG Patterns Birgit Frauscher, MD, PhD, FACNS Birgit Frauscher, MD, PhD, FACNS 3:05 PM Case(s) - Patterns Chifaou Abdallah, MD Case(s)

3:20 PM Discussion

#### SUNDAY, SEPTEMBER 29, 2024

#### 12:00 – 1:30 PM

### Stereo EEG – Part III: Extraoperative Action and Patient Care

Course Co-Directors: David B. Bu	urkholder, MD and Ramya Raghupathi, MD
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12:00 PM	Stimulation Mapping - Function <i>Ravindra Arya, MD, DM, FACNS</i>
12:25 PM	Stimulation Mapping - Seizures Saurabh R. Sinha, MD, PhD, FACNS
12:50 PM	Patient Care and Safety in SEEG Monitoring <i>Shasha Wu, MD, PhD</i>
1:15 PM	Discussion

#### 2:00 - 3:30 PM

Stereo EEG	– Part IV: Treatment
Course Co-Directors: David B. Burkholder, MD and Ramya Raghupathi, MD	
2:00 PM	Making Decisions and Predicting Success with SEEG Data Stephan U. Schuele, MD, MPH, FACNS
2:15 PM	Case(s) - Surgical Decisions <i>Lydia Wolkiewicz, MD</i>
2:40 PM	SEEG and Device Strategies <i>Katie L. Bullinger, MD, PhD, FACNS</i>
2:55 PM	Case(s) - Devices <i>Katie L. Bullinger, MD, PhD, FACNS</i>
3:20 PM	Discussion

#### **Special Interest Group (SIG) Happy Hours**

Business of Clinical Neurophysiology Friday, September 27, 2024 • 3:45 – 5:00 PM

#### ICU EEG, NIOM, Stereo EEG Saturday, September 28, 2024 • 3:45 – 5:00 PM

The ACNS SIGs are organized around several main areas of CNP practice providing members the opportunity to connect, network, and participate in interactive education, including case-based discussions, journal clubs, broad literature resources, and director-led interactive studies throughout the year.

For more information about the ACNS SIGs visit https://www.acns.org/membership/acns-special-interest-groups-sigs.

PCNP attendees may login to the virtual happy hour directly from the PCNP Virtual Platform. ACNS members not attending PCNP are also welcome to join the happy hour and may login via the SIG community on ACNS Connect.