ACNS FALL COURSES
VIRTUAL
PRELIMINARY PROGRAM

October 15-18, 2020
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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.

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Ohio State University Medical Center

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Brigham & Women's Hospital
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Children's National Health System
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Stanford University

Journal Editor
Aatif M. Husain, MD, FACNS

AMA Officer
Marc R. Nuwer, MD, PhD, FACNS

FALL COURSES COMMITTEES

CME COMMITTEE

Co-Chairs
Jong Woo Lee, MD, PhD, FACNS
Courtney J. Wusthoff, MD, FACNS

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Ammar Kheder, MD
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Elizabeth Gerard, MD, FACNS
Jun T. Park, MD, FAES
Hiba A. Haider, MD, FACNS
Karl Erwin Sanzenbacher, MD, MS, FACNS
Abeer J. Hani, MD, FACNS
Sarah E. Schmitt, MD, FACNS
Monica Islam, MD, FACNS
Fahd Sultan, MD
Pongkiat Kankirawatana, MD, FACNS
Ron Tintner, MD

Ex-Officio:
Meriem Bensalem-Owen, MD, FACNS
Dawn Eliashiv, MD, FACNS
Hiba A. Haider, MD, FACNS
Susan T. Herman, MD, FACNS
Aatif M. Husain, MD, FACNS
Cormac O’Donovan, MD, FACNS
Eva K. Ritzl, MD, MBA, FACNS

COURSE COMMITTEE

Co-Chairs
Meriem Bensalem-Owen, MD, FACNS
Aatif M. Husain, MD, FACNS

Members
Frank W. Drislane MD, FACNS
Madeleine M. Grigg-Damberger, MD
Hiba A. Haider, MD, FACNS
Giridhar Kalamangalam, MD, DPhil, FACNS
Ioannis Karakis, MD, PhD, MSC, FACNS
Lynn Liu, MD, FACNS
Jaime R. López, MD, FACNS
Marc R. Nuwer, MD, FACNS
Elia M. Pestana Knight, MD, FACNS
Stephan Schuele, MD, MPH, FACNS, FAAN
Susan T. Herman, MD, FACNS
Aatif M. Husain, MD, FACNS
Cormac O'Donovan, MD, FACNS
Eva K. Ritzl, MD, FACNS

ACNS EXECUTIVE OFFICE
555 E Wells St, Suite 1100
Milwaukee, WI 53202
Phone: (414) 918-9803
Fax: (414) 276-3349
info@acns.org
www.acns.org
For the first time in their ten-year history, ACNS will offer the 2020 Fall Courses virtually, allowing both speakers and delegates from around the world to attend the courses online, without concern for health, welfare or travel. All courses will be held in a mock-live format, according to the schedule on pages 7-12, but will also be available on-demand for 48 hours following the completion of the courses. Presenters will be available for live Q&A during the original course presentation times.

IMPORTANT DATES

| Registration Opens                  | July 15, 2020 |
| Registration Deadline               | October 6, 2020 |
| Registration Cancellation Deadline  | October 1, 2020 |
| Fall Courses Virtual Lobby Opens    | October 15, 2020 |
| CME Certificate Program Opens       | October 18, 2020 |
| CME Claim Deadline                  | January 31, 2021 |

REGISTRATION PROCESS
The ACNS Course Committee is pleased to offer the 2020 Fall Courses AT NO CHARGE! Take advantage of this first-ever and limited opportunity to attend ACNS’s signature educational offerings online and FREE!
Nominal fees will apply for attendees wishing to claim CME credits for course attendance...However, CME fees are WAIVED for ACNS members! Optional CME fees will apply per course for non-members, as follows:

<table>
<thead>
<tr>
<th>Course Type</th>
<th>Course Length</th>
<th>CME Credits</th>
<th>CME Fee</th>
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<tr>
<td>Full Day Course</td>
<td>10:00am - 2:00pm ET</td>
<td>4</td>
<td>$25</td>
</tr>
<tr>
<td>Short Course</td>
<td>2:30 - 4:30pm ET</td>
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<td>$15</td>
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To register, please visit: [https://www.acns.org/meetings/fall-courses/2020](https://www.acns.org/meetings/fall-courses/2020)

REGISTRATION CANCELLATION POLICY
Refund requests must be submitted in writing to ACNS prior to October 1, 2020. A $20 processing fee will be charged for all refunds. Refunds will not be granted for requests postmarked or received after October 1, 2020.

TECHNICAL SPECIFICATIONS & REQUIREMENTS
The ACNS Virtual Fall Courses will be presented using Zoom Webinars. Zoom is a cloud platform for video, voice, content sharing, and chat runs across mobile devices, desktops, telephones, and room systems. Attendees may choose to run Zoom via an Internet browser or to download an app to their desktop, tablet or mobile phone.
Zoom system requirements are as follows on Windows, macOS, and Linux.
• An internet connection – broadband wired or wireless (3G or 4G/LTE)
• Speakers and a microphone – built-in or USB plug-in or wireless Bluetooth
• A webcam or HD webcam - built-in or USB plug-in
• Or, a HD cam or HD camcorder with video capture card
A list of supported devices can also be found at [https://support.zoom.us/hc/en-us/articles/360026690212](https://support.zoom.us/hc/en-us/articles/360026690212)

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).

Collection of User Information
ACNS collects information from individuals who access its website or otherwise interact with the Society.
ACNS uses forms, both web-based and hardcopy, by which members/customers (users) may request information, products, and services. Order forms are used to collect users information closely related to the requested information, product or service, including, but not limited to:
• Contact information (e.g., name, address, phone number, e-mail address, etc);
• Demographic information;
• Practice information; and
• Financial information (e.g., account or credit card numbers).
Information collected via these forms relates closely and directly to the information, product, or service requested by the user.
ACNS may also use cookies (a small data file that can be placed on your hard drive when you visit certain websites) to collect, store, and sometimes track information related to use of the ACNS website.

Use and Disclosure of Personal Information
Information collected via the methods outlined above is used to provide a customized experience as you use the ACNS website or participate in ACNS products and services. User information collected via forms and cookies is used for statistical purposes, to deliver or improve the products and services we provide, or to save your settings and to provide customizable and personalized services.

Financial information is used to bill the user for products and services and then is deleted from our records in compliance with the Payment Card Industry Data Security Standard (PCI-DSS). Contact information from the order form is used to send orders, contact the user regarding any problems with the order, and to provide the user with information about our association, including promotional materials.

It is the policy of ACNS not to share this information with third parties. Exceptions to this policy include disclosure of personal information collected if we have a legitimate business interest in doing so, have received your permission in advance, or in very special circumstances, such as when we believe that such disclosure is required by law, or in other special cases described below.

ACNS may disclose personal information about users, or information regarding your use of our site, for any reason if, in our sole discretion, we believe that it is reasonable to do so, including: to satisfy laws, such as the Electronic Communications Privacy Act, regulations, or governmental or legal requests for such information; to disclose information that is necessary to identify, contact or bring legal action against someone who may be violating our user policies; to operate the site properly; or to protect ACNS and our users.

Use of ACNS website cookies do not enable third parties to access any of your personal information. Third parties and other non-ACNS websites may also use their own cookies. We do not control use of these cookies and expressly disclaim responsibility for information collected through them. Cookies are used to support Google Analytics functionality for website activity tracking. Google Analytics stores information at Google. View details regarding Google Analytics privacy and security.

Membership Directory
Current ACNS members’ contact information is made available through the Member Directory. This information is only available to other current ACNS members. Members may opt out of being listed in the Member Directory; see the Updating User Profile section below.

Updating User Profile
Individuals who have created an account with ACNS have the ability to update or change all personal information provided. To do so, users may visit the My Profile section of the ACNS website, or email the ACNS Executive Office (info@acns.org) with updated information.

Opt In/Out of Communications
It is the policy of ACNS not to use or share the personal information about users in ways unrelated to the ones described above without also providing you an opportunity to opt out or otherwise prohibit such unrelated uses.

ACNS provides individuals the opportunity to opt out of receiving communications from us when we request information about the user. To update these preferences, users may visit the ACNS website or email the ACNS Executive Office (info@acns.org).

ACNS also allows our members to opt out of displaying personal information in the Membership Directory. To update these preferences, members may visit the ACNS website or email the ACNS Executive Office (info@acns.org).

Security
Our site has security measures in place to protect the loss, misuse and alteration of the information under our control, but we cannot guarantee that our security measures will prevent third-party “hackers” from illegally obtaining this information.

Links to Other Sites
This site contains links to other sites. ACNS is not responsible for the privacy practices or content of other websites. We encourage you to read the privacy statements of each website that collects your personally identifiable information.

Changes to This Policy
ACNS reserves the right to revise, amend, or modify this Privacy Policy and our other policies and agreements at any time and in any manner. Notice of any revision, amendment, or modification will be posted.

CONDUCT 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 this Meeting Safety & Responsibility Policy. This Policy applies to all ACNS meeting-related events, online and in-person, 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 we can take the appropriate action.

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,
ABOUT THE FALL COURSES
The 2020 Virtual Fall Courses are designed around new and rapidly-evolving areas of clinical neurophysiology. Educational activities will cover both basic methodologies, and innovative techniques.

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
This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) through the sponsorship of ACNS. ACNS is accredited by the ACCME to provide continuing medical education for physicians.

CREDIT DESIGNATION
ACNS designates the Fall Courses for the maximum number of AMA PRA Category 1 Credit(s)™ indicated below:

**Intensive Care Unit EEG Monitoring (ICU EEG) — Part I:** 4 AMA PRA Category 1 Credits™

**Intensive Care Unit EEG Monitoring (ICU EEG) — Part II:** 4 AMA PRA Category 1 Credits™

**Basic Neurologic Intraoperative Monitoring (NIOM) — Part I:** 3.50 AMA PRA Category 1 Credits™

**Basic Neurologic Intraoperative Monitoring (NIOM) — Part II:** 3.50 AMA PRA Category 1 Credits™

**Advanced Neurologic Intraoperative Monitoring (NIOM) — Part I:** 3.50 AMA PRA Category 1 Credits™

**Advanced Neurologic Intraoperative Monitoring (NIOM) — Part II:** 3.50 AMA PRA Category 1 Credits™

**Stereo-Electroencephalography (Stereo EEG) — Part I:** 3.75 AMA PRA Category 1 Credits™

**Stereo-Electroencephalography (Stereo EEG) — Part II:** 3.75 AMA PRA Category 1 Credits™

**Basic EEG — Part I:** 3.75 AMA PRA Category 1 Credits™

**Basic EEG — Part II:** 3.75 AMA PRA Category 1 Credits™

**Evoked Potentials:** 2 AMA PRA Category 1 Credits™

**PSG Scoring Rules Review:** 3.75 AMA PRA Category 1 Credits™

**Neonatal EEG:** 2 AMA PRA Category 1 Credits™

**Billing and Coding Town Hall:** 2 AMA PRA Category 1 Credits™

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

ASET CEUS
ACNS is in the process of applying to ASET to allow attendees to claim ASET-CEUs for attendance at the ACNS Virtual Fall Courses. More information will be made available online at https://www.acns.org/meetings/fall-courses/2020-fall-courses/cme-information.

LEARNING OBJECTIVES:

**Intensive Care Unit EEG Monitoring (ICU EEG) — Parts I and II**
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. Interpret EEG patterns encountered in the ICU, including seizures, periodic patterns and other background patterns important for prognosis and management;
3. Select appropriately-dosed treatment options for seizures and status epilepticus, and recognize the nuances in approach to treatment based on EEG findings in nonconvulsive SE, or with rhythmic/periodic patterns that lie on the ictal interictal continuum;
4. Utilize quantitative EEG methods to see long-term trends, screen for seizures rapidly, and to detect signs of ischemia;
5. Describe the value and limitations of EEG monitoring to predict neurologic outcomes in hypoxic ischemic encephalopathy;
6. Recognize the specific EEG patterns induced by different anesthetics used in general anesthesia and in the ICU;
7. Select appropriate equipment for ICU-EEG monitoring, including networking and data storage options; and
8. Determine optimal staffing, data review, and reporting practices.

**Basic Neurophysiologic Intraoperative Monitoring (NIOM) — Parts I and II**
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 the different NIOM techniques;
3. Recognize some of the technical challenges and limitations of performing and interpreting NIOM studies;
4. Explain the effects of anesthesia on NIOM; and
5. Describe relevant billing concerns in the field of NIOM.
**Advanced Neurophysiologic Intraoperative Monitoring (NIOM) — Parts I and II**

At the conclusion of this course, participants should be able to:
1. Recognize differences in NIOM of adult and pediatric cases;
2. Explain how to interpret NIOM changes in a variety of different clinical case scenarios;
3. Recognize relevant medicolegal concerns in the field of NIOM;
4. Describe the implications of the COVID-19 pandemic on NIOM; and
5. Discuss the pathophysiologic rationale and utility of NIOM in cerebrovascular and brain tumor procedures.

**Stereo-Encephalography (Stereo EEG) — Parts I and II**

At the conclusion of this course, participants should be able to:
1. Identify the principles of SEEG;
2. Discuss the approach to various epilepsy syndromes with SEEG; and
3. Describe the limitations of SEEG and surgical risk.

**Evoked Potentials**

At the conclusion of this course, participants should be able to:
1. Discuss the basics of Evoked Potentials (EPs);
2. Identify the fundamental tenets of signal generation and localization, technical considerations of stimulation and recording;
3. Explain interpretation and reporting guidelines of various types of EPs; and
4. Identify normal and abnormal examples presented to demonstrate the utility of EPs in clinical practice.

**Neonatal EEG**

At the conclusion of this course, participants should be able to:
1. Identify EEG and aEEG background patterns predictive of outcome after hypoxic ischemic injury;
2. Discuss neonatal clinical seizure types and potential etiologic associations;
3. Identify electrographic neonatal seizures;
4. Describe common neonatal seizure management strategies; and
5. Identify normal preterm infant background patterns.

**Basic EEG — Parts I and II**

At the conclusion of this course, participants should be able to:
1. Explain the basics in electroencephalography (EEG);
2. Identify the fundamental tenets of signal generation, technical considerations of signal acquisition, types of EEG recordings and reporting standards;
3. Recognize normal EEG examples and their variants across various age groups that are presented and contrasted with artifacts; and
4. Discuss both non-epileptiform and epileptiform abnormalities that are demonstrated and their relationship with underlying neurologic disorders.

**Billing & Coding Town Hall**

At the conclusion of this course, participants should be able to:
1. Identify the new 2020 CPT codes for EMU video-EEG monitoring;
2. Identify the new 2020 CPT codes for ICU EEG monitoring;
3. Identify the new 2020 CPT codes for ambulatory EEG monitoring;
4. Identify the new 2020 CPT codes VNS, RNS, and DBS;
5. Explain the associated coding instructions for using those codes; and
6. Describe how to apply those codes to their typical services.

**PSG Scoring Rules Review**

At the conclusion of this course, participants should be able to:
1. Explain how to record video-polysomnography and score sleep/wake states in children and adults using the AASM Scoring Manual rules;
2. Discuss how and why respiratory events are scored differently in children and adults in the AASM Scoring Manual; and
3. Recognize the video-polysomnographic features of NREM arousal parasomnias, REM sleep behavior disorder, and sleep-related hypermotor epilepsies.
## PRELIMINARY SCHEDULE

### THURSDAY, OCTOBER 15, 2020*

*On-Demand Access Opens: Friday, October 16, 2020 at 10:00am ET. On-Demand Access Closes: Sunday, October 18, 2020 at 10:00am ET.

<table>
<thead>
<tr>
<th>Course is Live</th>
<th>10:00am - 2:00pm ET</th>
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<tbody>
<tr>
<td>Basic Neurophysiological Intraoperative Monitoring (NIOM) — Part I</td>
<td>Co-Directors: Meriem Bensalem-Owen, MD, FACNS and Jaime R. López, MD, FACNS</td>
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<td>Intensive Care Unit EEG Monitoring — Part I</td>
<td>Co-Directors: Hiba A. Haider, MD, FACNS and Courtney J. Wusthoff, MD, FACNS</td>
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### FRIDAY, OCTOBER 16, 2020*

*On-Demand Access Opens: Saturday, October 17, 2020 at 10:00am ET. On-Demand Access Closes: Monday, October 19, 2020 at 10:00am ET.

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<tr>
<td>Intensive Care Unit EEG Monitoring — Part II</td>
<td>Co-Directors: Hiba A. Haider, MD, FACNS and Courtney J. Wusthoff, MD, FACNS</td>
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<tr>
<td>PSG Scoring Rules Review</td>
<td>Co-Directors: Madeleine M. Grigg-Damberger, MD, FACNS and Nancy Foldvary-Schaefer, DO, MS</td>
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<tr>
<td>Neonatal EEG</td>
<td>Director: Tammy Tsuchida, MD, PhD, FACNS</td>
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### SATURDAY, OCTOBER 17, 2020*

*On-Demand Access Opens: Sunday, October 18, 2020 at 10:00am ET. On-Demand Access Closes: Tuesday, October 20, 2020 at 10:00am ET.

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<td>Co-Directors: Saurabh R. Sinha, MD, FACNS and Lynn Liu, MD, FACNS</td>
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<td>Billing &amp; Coding Town Hall</td>
<td>Co-Directors: Marc R. Nuwer, MD, PhD, FACNS and Eva K. Ritzl, MD, FACNS</td>
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### SUNDAY, OCTOBER 18, 2020*

*On-Demand Access Opens: Monday, October 19, 2020 at 10:00am ET. On-Demand Access Closes: Wednesday, October 21, 2020 at 10:00am ET.

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<tr>
<td>Basic EEG — Part II</td>
<td>Co-Directors: Saurabh R. Sinha, MD, FACNS and Lynn Liu, MD, FACNS</td>
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THURSDAY, OCTOBER 15, 2020

BASIC NEUROPHYSIOLOGICAL INTRAOPERATIVE MONITORING (NIOM) — PART I
Course Co-Directors: Meriem Bensalem-Owen, MD, FACNS and Jaime R. López, MD, FACNS
Course is Live: 10:00am – 2:00pm ET
On-Demand Access Opens: Friday, October 16, 2020 at 10:00am ET
On-Demand Access Closes: Sunday, October 18, 2020 at 10:00am ET

10:00am ET Welcome & Introduction
Jaime R. López, MD, FACNS

10:05am ET SEP
Aatif M. Husain, MD, FACNS

10:45am ET MEP
Ronald Emerson, MD, FACNS

11:25am ET BAEP Monitoring
Alan D. Legatt, MD, PhD, FACNS

12:05pm ET Break

12:35pm ET EEG Monitoring & Electrocorticography
Meriem Bensalem-Owen, MD, FACNS

1:15pm ET EMG & Peripheral Nerve Monitoring
Leo T. Happel, MD

1:55pm ET Conclusion
Meriem Bensalem-Owen, MD, FACNS & Jaime R. López, MD, FACNS

INTENSIVE CARE UNIT EEG MONITORING — PART I
Course Co-Directors: Hiba A. Haider, MD, FACNS and Courtney J. Wusthoff, MD, FACNS
Course is Live: 10:00am – 2:00pm ET
On-Demand Access Opens: Friday, October 16, 2020 at 10:00am ET
On-Demand Access Closes: Sunday, October 18, 2020 at 10:00am ET

10:00am ET Welcome & Introduction
Hiba A. Haider, MD, FACNS and Courtney J. Wusthoff, MD, FACNS

10:05am ET ICU EEG Monitoring: An Overview Across the Ages
Cecil D. Hahn, MD, MPH, FRCPC, FACNS

10:30am ET ICU EEG Terminology Update
Lawrence J. Hirsch, MD, FACNS

11:00am ET Setting up your ICU EEG Service: Staffing, Personnel, Workflow and Logistics
William B. Gallentine, DO, FACNS

11:30am ET The Ictal Interictal Continuum: Identifying Seizures, Periodic Patterns and Everything in Between
Suzette M. LaRoche, MD, FACNS

12:00pm ET Impact of Seizure Management on Outcome: Risk-Benefit Calculus
Aatif M. Husain, MD, FACNS

12:30pm ET Multimodal & Invasive Monitoring
Brandon Foreman, MD, FACNS

1:00pm ET Unusual Types of Status Epilepticus
Frank W. Drislane, MD, FACNS

1:30pm ET EEG in Toxic/Metabolic Encephalopathy (delirium)
Peter W. Kaplan, MB, BS, FRCP, FACNS

EVOKED POTENTIALS
Course Director: Ioannis Karakis, MD, PhD, MSC, FACNS
Course is Live: 2:30-4:30pm ET
On-Demand Access Opens: Friday, October 16, 2020 at 10:00am ET
On-Demand Access Closes: Sunday, October 18, 2020 at 10:00am ET

2:30pm ET Brainstem Auditory Evoked Potentials (BAEPs)
Alan D. Legatt, MD, PhD, FACNS

3:10pm ET Visual Evoked Potentials (VEPs)
Aatif M. Husain, MD, FACNS

3:50pm ET Somatosensory Evoked Potentials (SSEPs)
Ioannis Karakis, MD, PhD, MSC, FACNS
FRIDAY, OCTOBER 16, 2020

BASIC NEUROPHYSIOLOGICAL INTRAOPERATIVE MONITORING (NIOM) — PART II
Course Co-Directors: Meriem Bensalem-Owen, MD, FACNS and Jaime R. López, MD, FACNS

Course is Live: 10:00am-2:00pm ET
On-Demand Access Opens: Saturday, October 17, 2020 at 10:00am ET
On-Demand Access Closes: Monday, October 19, 2020 at 10:00am ET

10:00am Welcome & Introduction
Meriem Bensalem-Owen, MD, FACNS

10:05am Anesthesia During NIOM
Ronald Emerson, MD, FACNS

10:45am Technical Troubleshooting in NIOM
Eric Jones, R.EEG/EPT, CNIM, CLTM

11:25am Cranial Nerve Monitoring
Jaime R. López, MD, FACNS

12:05pm Break

12:35pm Pelvic Floor Monitoring and Tethered Cord Surgery
Lidia Cabaañes-Martinez, MD

1:15pm Billing Issues in NIOM
Marc R. Nuwer, MD, PhD, FACNS

1:55pm Conclusion
Meriem Bensalem-Owen, MD, FACNS and Jaime R. López, MD, FACNS

INTENSIVE CARE UNIT EEG MONITORING — PART II
Course Co-Directors: Hiba A. Haider, MD, FACNS and Courtney J. Wusthoff, MD, FACNS

Course is Live: 10:00am-2:00pm ET
On-Demand Access Opens: Saturday, October 17, 2020 at 10:00am ET
On-Demand Access Closes: Monday, October 19, 2020 at 10:00am ET

10:00am QEEG: Seizure Detection
Hiba A. Haider, MD, FACNS

10:30am QEEG: Ischemia Monitoring
Susan T. Herman, MD, FACNS

11:00am Cases: Adult EEG/QEEG
Elizabeth Gerard, MD, FACNS

11:30am Cases: Pediatric EEG/QEEG
Andrea Lowden, MD

12:00pm Anoxic Brain Injury and Myoclonic Status Epilepticus
Monica B. Dhakar, MD, MS

12:30pm HIE: Prognosis in Adults
Emily J. Gilmore, MD, FACNS

1:00pm HIE: Prognosis in Children and Neonates
Tammy Tsuchida, MD, PhD, FACNS

1:30pm Artifacts in the ICU: Navigating A (Electrically) Hostile Environment
Sarah E. Schmitt, MD, FACNS
ACNS 2020 FALL COURSES

FRIDAY, OCTOBER 16, 2020

POLYSOMNOGRAPHY SCORING USING THE AASM SCORING MANUAL RULES
Course Co-Directors: Madeleine M. Grigg-Damberger, MD, FACNS and Nancy Foldvary-Schaefer, DO, MS

Course is Live: 10:00am-2:00pm ET
On-Demand Access Opens: Saturday, October 17, 2020 at 10:00am ET
On-Demand Access Closes: Monday, October 19, 2020 at 10:00am ET

10:00am ET Welcome & Introduction
Madeleine M. Grigg-Damberger, MD, FACNS

10:05am ET Nuts and Bolts of Video-Polysomnography
Rodney A. Radtke, MD, FACNS

10:35am ET Scoring Sleep/Wake States in Adults
Milena Pavlova, MD, FAASM, FACNS

11:05am ET Scoring Respiratory Events in Adults
Marcus C. Ng, MD, FRCPC, CSCN, FACNS

11:35am ET Distinguishing NREM Arousal Parasomnias from Sleep-related Hypermotor Seizures Using Video-Polysomnography
Nancy Foldvary-Schaefer, DO, MS

12:05pm ET Break

12:25pm ET Scoring Sleep and Respiratory Events in Children
Sanjeev V. Kothare, MD

12:55pm ET Scoring REM Sleep Without Atonia, REM Behavior Disorders and Periodic Limb Movements
Madeleine M. Grigg-Damberger, MD, FACNS

1:25pm ET Scoring Multiple Sleep Latency Testing
Lynn Liu, MD, FACNS

1:55pm ET Conclusion
Madeleine M. Grigg-Damberger, MD, FACNS and Nancy Foldvary-Schaefer, DO, MS

FRIDAY, OCTOBER 16, 2020

NEONATAL EEG
Course Director: Tammy Tsuchida, MD, PhD, FACNS

Course is Live: 2:30 – 4:30pm ET
On-Demand Access Opens: Saturday, October 17, 2020 at 10:00am ET
On-Demand Access Closes: Monday, October 19, 2020 at 10:00am ET

2:30pm ET Neonatal EEG/ aEEG for Prognosis After Hypoxic Ischemic Injury - Term Infant
Tammy Tsuchida, MD, PhD, FACNS

3:00pm ET Neonatal Clinical Seizure Classification
Ronit M. Pressler, PhD, MD

3:30pm ET Neonatal Electrographic Seizure Identification and Management
Tayyba Anwar, MD

4:00pm ET Electrographic Seizures and Normal EEG Background Patterns - Preterm Infant
Courtney J. Wusthoff, MD, FACNS
PROGRAM OVERVIEW

SATURDAY, OCTOBER 17, 2020

ADVANCED NEUROPHYSIOLOGICAL INTRAOPERATIVE MONITORING (NIOM) — PART I
Course Co-Directors: Meriem Bensalem-Owen, MD, FACNS and Jaime R. López, MD, FACNS

Course is Live: 10:00am – 2:00pm ET
On-Demand Access Opens: Sunday, October 18, 2020 at 10:00am ET
On-Demand Access Closes: Tuesday, October 20, 2020 at 10:00am ET

10:00am ET Welcome & Introduction
   Jaime R. López, MD, FACNS

10:05am ET Pediatric Consideration in NIOM
   Gloria M. Galloway, MD, FACNS

10:45am ET Case Studies in Pediatric NIOM
   Jaime R. López, MD, FACNS

11:25am ET Medicolegal Concerns in NIOM
   Jaime R. López, MD, FACNS

12:05pm ET Break

12:30pm ET NIOM during COVID-19 Pandemic European Experience
   María Del Mar Moreno, MD

12:55pm ET NIOM during COVID-19 Pandemic US Experience
   Christine Hung, MD

1:20pm ET NIOM during COVID-19 Pandemic Latin American Experience
   Alejandro Zavala, MD, FACNS

1:45pm ET Discussion

STEREO-ELECTROENCEPHALOGRAPHY — PART I
Course Co-Directors: Stephan U. Schuele, MD, MPH, FACNS; Elia M. Pestana-Knight, MD, FACNS; and Giridhar P. Kalamangalam, MD, DPhil, FACNS

Course is Live: 10:00am – 2:00pm ET
On-Demand Access Opens: Sunday, October 18, 2020 at 10:00am ET
On-Demand Access Closes: Tuesday, October 20, 2020 at 10:00am ET

10:00am ET Noninvasive Data and Hypothesis
   Stephan U. Schuele, MD, MPH, FACNS

10:30am ET Implantation Strategy
   Giridhar P. Kalamangalam, MD, DPhil, FACNS

11:00am ET Semiology of Seizures that Have Localizable Value in Children
   Ahsan Moosa Naduvil Valappil, MD

11:30am ET Presurgical Data and SEEG Patient Selection: Special Considerations in Children
   Ammar Kheder, MD

12:00pm ET Break

12:20pm ET Case I
   Ahsan Moosa Naduvil Valappil, MD

1:10pm ET Case II
   Ammar Kheder, MD
BASIC EEG — PART I
Course Co-Directors: Lynn Liu, MD, FACNS and Saurabh R. Sinha, MD, PhD, FACNS

Course is Live: 10:00am – 2:00pm ET
On-Demand Access Opens: Sunday, October 18, 2020 at 10:00am ET
On-Demand Access Closes: Tuesday, October 20, 2020 at 10:00am ET

10:00am ET     Welcome & Introduction: History of EEG/ACNS
                Lynn Liu, MD, FACNS and Saurabh R. Sinha, MD, PhD, FACNS

10:15am ET     Physiological Basis of EEG
                Mark S. Quigg, MD

10:45am ET     Instrumentation — Demo
                Charles M. Epstein, MD, FACNS

11:15am ET     Instrumentation — Demo/Lecture
                Charles M. Epstein, MD, FACNS

11:45am ET     Electrodes/Montages and Localization
                Lynn Liu, MD, FACNS

12:15pm ET     Break

12:30pm ET     Normal Adult EEG
                William O. Tatum, DO, FACNS

1:00pm ET      Normal Pediatric EEG
                Tammy Tsuchida, MD, PhD, FACNS

1:30pm ET      Visual Analysis of EEG
                Rodney A. Radtke, MD, FACNS

BILLING & CODING TOWN HALL
Course Co-Directors: Marc R. Nuwer, MD, PhD, FACNS and Eva K. Ritzl, MD, FACNS

Course is Live: 2:00-4:30pm ET
On-Demand Access Opens: Sunday, October 18, 2020 at 10:00am ET
On-Demand Access Closes: Tuesday, October 20, 2020 at 10:00am ET

2:30pm ET      2021 Outpatient E/M Codes
                Marc R. Nuwer, MD, FACNS

3:10pm ET      2020 EEG Monitoring Codes
                Eva K. Ritzl, MD, FACNS

3:50pm ET      Discussion
**ADVANCED NEUROPHYSIOLOGICAL INTRAOPERATIVE MONITORING (NIOM) – PART II**

*Course Co-Directors: Meriem Bensalem-Owen, MD, FACNS and Jaime R. López, MD, FACNS*

**Course is Live: 10:00am – 2:00pm ET**

On-Demand Access Opens: Monday, October 19, 2020 at 10:00am ET

On-Demand Access Closes: Wednesday, October 21, 2020 at 10:00am ET

10:00am ET Welcome & Introduction

*Meriem Bensalem-Owen, MD, FACNS*

10:05am ET Functional Brain Mapping and Monitoring of Brain Tumors

*Mirela V. Simon, MD, MSc, FACNS*

10:45am ET NIOM of Cerebrovascular Procedures

*Leslie H. Lee, MD, FACNS*

11:25am ET Cases Studies in Brain IOM (1)

*Leslie H. Lee, MD, FACNS*

12:05pm ET Break

12:35pm ET IOM of Cardiac surgery and Thoracoabdominal Aneurysms

*Michael McGarvey, MD, FACNS*

1:15pm ET Cases Studies in Brain IOM (2)

*Alan D. Legatt, MD, PhD, FACNS*

1:55pm ET Conclusion

*Meriem Bensalem-Owen, MD, FACNS and Jaime R. López, MD, FACNS*

**STEREO-ELECTROENCEPHALOGRAPHY — PART II**

*Course Co-Directors: Stephan U. Schuele, MD, MPH, FACNS; Elia M. Pestana-Knight, MD, FACNS; and Giridhar P. Kalamangalam, MD, DPhil, FACNS*

**Course is Live: 10:00am – 2:00pm ET**

On-Demand Access Opens: Monday, October 19, 2020 at 10:00am ET

On-Demand Access Closes: Wednesday, October 21, 2020 at 10:00am ET

10:00am ET The EZ in Pediatric Epilepsy Surgery Defined by SEEG

*Jun T. Park, MD, FAES*

10:30am ET Electrical Stimulation and Mapping in Pediatric SEEG

*Ravindra Arya, MD, DM*

11:00am ET Technical Surgical Considerations in Children

*David Gonda, MD*

11:30am ET Outcomes Associated with Pediatric SEEG

*Elia M. Pestana Knight, MD, FACNS*

12:00pm ET Break

12:15pm ET ACNS and Other Guidelines

*Thomas Wychowski, MD*

12:45pm ET Ambulatory EEG/LTM

*Monica B. Dhakar, MD, MS*

1:15pm ET Advanced EEG

*Susan T. Herman, MD, FACNS*

1:45pm ET Impact of COVID on EEG

*Suzette M. LaRoche, MD, FACNS*

**BASIC EEG — PART II**

*Course Co-Directors: Lynn Liu, MD and Saurabh R. Sinha, MD, PhD, FACNS*

**Course is Live: 10:00am – 2:00pm ET**

On-Demand Access Opens: Monday, October 19, 2020 at 10:00am ET

On-Demand Access Closes: Wednesday, October 21, 2020 at 10:00am ET

10:00am ET Abnormal Pediatric EEG

*Douglas R. Nordli Jr., MD, FACNS*

10:30am ET EEG in Encephalopathy

*Peter W. Kaplan, MD, FRCP, FACNS*

11:00am ET EEG in Epilepsy

*Elson Lee L. So, MD, FACNS*

11:30am ET Normal Variants

*Heidi M. Munger Clary, MD, MPH, FACNS*

12:00pm ET Break

12:15pm ET ACNS and Other Guidelines

*Thomas Wychowski, MD*

12:45pm ET Ambulatory EEG/LTM

*Monica B. Dhakar, MD, MS*

1:15pm ET Advanced EEG

*Susan T. Herman, MD, FACNS*

1:45pm ET Impact of COVID on EEG

*Suzette M. LaRoche, MD, FACNS*