



# AES 2023 ANNUAL MEETING

December 1-5 | Orlando

## PROGRAM BOOK





Connect  
with us at  
the AES  
Annual  
Meeting

## When you care, your work is never done.

For three decades, UCB has been committed to people living with epilepsy, surrounding the patient and caregiver through every step of their care journey. **We are more invested than ever in profoundly improving the lives of those living with or caring for those with epilepsy or a rare epilepsy syndrome** – through our relentless pursuit of a seizure-free life.

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Inspired by patients.  
Driven by science.

# INTERACTIVE TAKEDA BRAIN

AUGMENTED  
REALITY

**COME EXPERIENCE**

**TAKEDA NEUROSCIENCE IN  
AUGMENTED REALITY**

to learn more about rare childhood epilepsies!

**BOOTH #401**

Takeda does not have any approved treatments for rare epilepsies. Intended for Healthcare Professionals registered at the AES 2023 Annual Meeting.

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VV-MEDMAT-92148. September 2023.

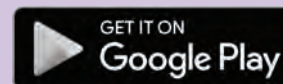
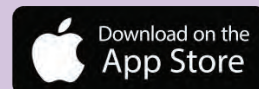


# With the AES Annual Meeting App, you can do it all:

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*Gigi is an actual patient.*

**VISIT US AT  
BOOTH 1000  
TO LEARN MORE.**

 **Ztalmy**®   
(ganaxolone) oral suspension | 50 mg/mL

 **MARINUS**

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The first and only FDA-approved treatment for **Rett syndrome (RTT)**

For patients 2 years and older<sup>1,2</sup>

Add more of  
her sparkle  
to the world around them

*Kate, age 9, living with RTT  
(left) and her caregivers (right)*

## Visit Acadia Booth 1327 to learn about efficacy and safety findings from the pivotal Phase 3 LAVENDER™ Trial

A 12-week, randomized, double-blind, placebo-controlled study that evaluated the efficacy and safety of DAYBUE™ (trofinetide) in 187 female patients (aged 5 to 20 years) with RTT. Two co-primary endpoints evaluated changes in signs and symptoms of RTT, as assessed by caregivers and clinicians.<sup>1,a</sup>

### Caregiver completed scale<sup>1</sup>

**Co-primary Endpoint:** Change from baseline to Week 12 in the Rett Syndrome Behaviour Questionnaire (RSBQ) total score.

### Clinician completed scale<sup>1</sup>

**Co-primary Endpoint:** Clinical Global Impression-Improvement (CGI-I) score at Week 12.

## Indication

DAYBUE is indicated for the treatment of Rett syndrome in adults and pediatric patients 2 years of age and older.

## Important Safety Information

### ► Warnings and Precautions

– **Diarrhea:** In a 12-week study and in long-term studies, 85% of patients treated with DAYBUE experienced diarrhea. In those treated with DAYBUE, 49% either had persistent diarrhea or recurrence after resolution despite dose interruptions, reductions, or concomitant antidiarrheal therapy. Diarrhea severity was of mild or moderate severity in 96% of cases. In the 12-week study, antidiarrheal medication was used in 51% of patients treated with DAYBUE.

Patients should stop taking laxatives before starting DAYBUE. If diarrhea occurs, patients should notify their healthcare provider, consider starting antidiarrheal treatment, and monitor hydration status and increase oral fluids, if needed. Interrupt, reduce dose, or discontinue DAYBUE if severe diarrhea occurs or if dehydration is suspected.

# Discover DAYBUE at AES 2023!

## Acadia Product Theater: KOL and Caregiver Panel Discussion

Sunday, December 3<sup>rd</sup>, 12:30–1:30 PM  
Exhibit Hall Floor

Join for a moderated panel discussion with RTT experts and a caregiver, where we will explore their experience with DAYBUE, including efficacy and safety data.



## It's all happening at Booth 1327!

### The DAYBUE Sparkle Challenge

Bring your swing to the interactive miniature golf game, where every putt and every question can help Acadia donate to RTT research.

## Important Safety Information (continued)

### ► Warnings and Precautions (continued)

- **Weight Loss:** In the 12-week study, 12% of patients treated with DAYBUE experienced weight loss of greater than 7% from baseline, compared to 4% of patients who received placebo. In long-term studies, 2.2% of patients discontinued treatment with DAYBUE due to weight loss. Monitor weight and interrupt, reduce dose, or discontinue DAYBUE if significant weight loss occurs.
- **Adverse Reactions:** The common adverse reactions ( $\geq 5\%$  for DAYBUE-treated patients and at least 2% greater than in placebo) reported in the 12-week study were diarrhea (82% vs 20%), vomiting (29% vs 12%), fever (9% vs 4%), seizure (9% vs 6%), anxiety (8% vs 1%), decreased appetite (8% vs 2%), fatigue (8% vs 2%), and nasopharyngitis (5% vs 1%).
- **Drug Interactions: Effect of DAYBUE on other Drugs**
  - DAYBUE is a weak CYP3A4 inhibitor; therefore, plasma concentrations of CYP3A4 substrates may be increased if given concomitantly with DAYBUE. Closely monitor when DAYBUE is used in combination with orally administered CYP3A4 sensitive substrates for which a small change in substrate plasma concentration may lead to serious toxicities.
  - Plasma concentrations of OATP1B1 and OATP1B3 substrates may be increased if given concomitantly with DAYBUE. Avoid the concomitant use of DAYBUE with OATP1B1 and OATP1B3 substrates for which a small change in substrate plasma concentration may lead to serious toxicities.
- **Use in Specific Population: Renal Impairment**
  - DAYBUE is not recommended for patients with moderate or severe renal impairment.

DAYBUE is available as an oral solution (200mg/mL).

Please read the Brief Summary of full Prescribing Information on the following page

Learn more at  
[DAYBUEhcp.com](https://www.daybuehcp.com)



<sup>a</sup>Patients had a diagnosis of typical RTT with a documented disease-causing mutation in the *MECP2* gene. Patients were randomized to receive DAYBUE (N=93) or matching placebo (N=94) for 12 weeks.<sup>1</sup>

**References:** **1.** Acadia Pharmaceuticals Inc. DAYBUE [Package Insert]. San Diego, CA, 2023. **2.** Acadia Pharmaceuticals announces U.S. FDA approval of DAYBUE™ (trofinetide) for the treatment of Rett syndrome in adult and pediatric patients two years of age and older. [press release]. Acadia Pharmaceuticals Inc. March 10, 2023.

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## DAYBUE™ (trofinetide) oral solution

Rx Only

**Brief Summary:** This information is not comprehensive. Visit [www.DAYBUEhcp.com](http://www.DAYBUEhcp.com) to obtain the full Prescribing Information or call 1-844-422-2342

### 1 INDICATIONS AND USAGE

DAYBUE is indicated for the treatment of Rett syndrome in adults and pediatric patients 2 years of age and older.

### 2 DOSAGE AND ADMINISTRATION

Administer DAYBUE orally twice daily, in the morning and evening, according to patient weight as shown in the table below. DAYBUE can be taken with or without food.

#### Recommended Dosage of DAYBUE in Patients 2 years of age and older

Patient Weight	DAYBUE Dosage	DAYBUE Volume
9 kg to <12 kg	5,000 mg twice daily	25 mL twice daily
≥12 kg to <20 kg	6,000 mg twice daily	30 mL twice daily
≥20 kg to <35 kg	8,000 mg twice daily	40 mL twice daily
≥35 kg to <50 kg	10,000 mg twice daily	50 mL twice daily
≥50 kg	12,000 mg twice daily	60 mL twice daily

#### Administration Information

Administer DAYBUE orally or via gastrostomy (G) tube; doses administered via gastrojejun (GJ) tubes must be administered through the G-port. A calibrated measuring device, such as an oral syringe or oral dosing cup, should be obtained from the pharmacy to measure and deliver the prescribed dose accurately. A household measuring cup is not an adequate measuring device. Discard any unused DAYBUE oral solution after 14 days of first opening the bottle.

#### Missed Dose or Vomiting After Administration

If a dose of DAYBUE is missed, the next dose should be taken as scheduled. Doses should not be doubled. If vomiting occurs after DAYBUE administration, an additional dose should not be taken. Instead, continue with the next scheduled dose.

#### Dose Modification for Diarrhea or Weight Loss

Advise patients to stop laxatives before starting DAYBUE. Interrupt, reduce the dosage, or discontinue DAYBUE if severe diarrhea occurs, if dehydration is suspected, or if significant weight loss occurs.

### 5 WARNINGS AND PRECAUTIONS

#### Diarrhea

In a 12-week randomized, double-blind, placebo-controlled study (Study 1) and in long-term studies, 85% of patients treated with DAYBUE experienced diarrhea. In those treated with DAYBUE, 49% either had persistent diarrhea or recurrence after resolution despite dose interruptions, reductions, or concomitant antidiarrheal therapy. Diarrhea severity was of mild or moderate severity in 96% of cases. In Study 1, antidiarrheal medication was used in 51% of patients treated with DAYBUE.

Advise patients to stop laxatives before starting DAYBUE. If diarrhea occurs, patients should notify their healthcare provider, consider starting antidiarrheal treatment, and monitor hydration status and increase oral fluids, if needed. Interrupt, reduce dose, or discontinue DAYBUE if severe diarrhea occurs or if dehydration is suspected.

#### Weight Loss

In Study 1, 12% of patients treated with DAYBUE experienced weight loss of greater than 7% from baseline, compared to 4% of patients who received placebo. In long-term studies, 2.2% of patients discontinued treatment with DAYBUE due to weight loss.

Monitor weight and interrupt, reduce dose, or discontinue DAYBUE if significant weight loss occurs.

### 6 ADVERSE REACTIONS

The following clinically significant adverse reactions are described elsewhere in labeling:

Diarrhea [see *Warnings and Precautions*]

Weight Loss [see *Warnings and Precautions*]

### Clinical trial experience

In controlled and uncontrolled trials in patients with Rett syndrome, 260 patients ages 2 to 40 years were treated with DAYBUE, including 109 patients treated for more than 6 months, 69 patients treated for more than 1 year, and 4 patients treated for more than 2 years.

Adult and Pediatric Patients with Rett Syndrome 5 Years of Age and Older

The safety of DAYBUE was evaluated in a randomized, double-blind, placebo-controlled, 12-week study of patients with Rett syndrome (Study 1). In Study 1, 93 patients received DAYBUE, and 94 patients received placebo. All patients were female, 92% were White, and the mean age was 11 years (range 5 to 20 years).

Adverse Reactions Leading to Discontinuation of Treatment

Eighteen patients (19%) receiving DAYBUE had adverse reactions that led to withdrawal from the study. The most common adverse reaction leading to discontinuation of treatment with DAYBUE was diarrhea (15%).

Common Adverse Reactions

Adverse reactions that occurred in Study 1 in at least 5% of patients treated with DAYBUE and were at least 2% more frequent than in patients on placebo are presented in the table below.

#### Adverse Reactions in at Least 5% of Patients Treated With DAYBUE and at Least 2% Greater than Placebo in Study 1

Adverse Reaction	DAYBUE (N=93) %	Placebo (N=94) %
Diarrhea	82	20
Vomiting	29	12
Fever	9	4
Seizure	9	6
Anxiety	8	1
Decreased appetite	8	2
Fatigue	8	2
Nasopharyngitis	5	1

Pediatric Patients With Rett Syndrome 2 to 4 Years of Age

In an open-label study in pediatric patients 2 to 4 years of age with Rett syndrome, a total of 13 patients received DAYBUE for at least 12 weeks and 9 patients received DAYBUE for at least 6 months. Adverse reactions in pediatric patients 2 to 4 years of age treated with DAYBUE were similar to those reported in adult and pediatric patients 5 years of age and older with Rett syndrome in Study 1.

### 7 DRUG INTERACTIONS

Effect of DAYBUE on Other Drugs

Trofinetide is a weak CYP3A4 inhibitor; therefore, plasma concentrations of CYP3A4 substrates may be increased if given concomitantly with DAYBUE. Closely monitor when DAYBUE is used in combination with orally administered CYP3A4 sensitive substrates for which a small change in substrate plasma concentration may lead to serious toxicities.

Plasma concentrations of OATP1B1 and OATP1B3 substrates may be increased if given concomitantly with DAYBUE. Avoid the concomitant use of DAYBUE with OATP1B1 and OATP1B3 substrates for which a small change in substrate plasma concentration may lead to serious toxicities.

### 8 USE IN SPECIFIC POPULATIONS

#### Pregnancy

Risk Summary

There are no adequate data on the developmental risks associated with the use of DAYBUE in pregnant women. No adverse developmental effects were observed following oral administration of trofinetide to pregnant animals at doses associated with plasma exposures below those used clinically.

#### Lactation

Risk Summary

There is no information regarding the presence of trofinetide or its metabolites in human milk, the effects on the breastfed infant, or the effects on milk production. The developmental and health benefits of breastfeeding should be considered along with the

mother's clinical need for DAYBUE and any potential adverse effects on the breastfed infant from DAYBUE or from the underlying maternal condition.

### Pediatric Use

The safety and effectiveness of DAYBUE for the treatment of Rett syndrome have been established in pediatric patients aged 2 years and older. The safety and effectiveness of DAYBUE for the treatment of Rett syndrome in pediatric patients 5 years of age and older was established in Study 1, which included 108 pediatric patients age 5 to less than 12 years of age and 47 pediatric patients age 12 to less than 17 years of age. Use of DAYBUE in patients 2 to 4 years of age is supported by evidence from Study 1 and pharmacokinetic and safety data in 13 pediatric patients 2 to 4 years of age treated with DAYBUE for 12 weeks.

Safety and effectiveness in pediatric patients less than 2 years of age have not been established.

### Geriatric Use

Clinical studies of DAYBUE did not include patients 65 years of age and older to determine whether or not they respond differently from younger patients. This drug is known to be substantially excreted by the kidney. Because elderly patients are more likely to have decreased renal function, it may be useful to monitor renal function.

### Renal Impairment

No dedicated clinical study has been conducted to evaluate the pharmacokinetics of DAYBUE in subjects with renal impairment. Since the drug is eliminated mainly through the kidney, administration of DAYBUE to patients with moderate or severe renal impairment is not recommended.

### 16 Storage and Handling

Store DAYBUE in an upright position refrigerated at 2°C to 8°C (36°F to 46°F). Do not freeze. Keep the child-resistant cap tightly closed. Discard any unused DAYBUE oral solution after 14 days of first opening the bottle.

### 17 PATIENT COUNSELING INFORMATION

Advise the caregiver or patient to read the FDA-approved patient labeling (Patient Information).

DAYBUE Administration

Advise the caregiver or patient that DAYBUE may be given orally or via gastrostomy (G) tube; doses administered via gastrojejun (GJ) tubes must be administered through the G-port. DAYBUE may be taken with or without food.

Instruct the caregiver or patient to obtain a calibrated measuring device, such as an oral syringe or oral dosing cup, from the pharmacy to measure and deliver the prescribed dose accurately. A household measuring cup is not an adequate measuring device.

Instruct the caregiver or patient to discard any unused DAYBUE after 14 days of first opening the bottle.

Diarrhea

Advise the caregiver or patient that DAYBUE can cause diarrhea. Instruct the patient to stop taking laxatives before starting DAYBUE. If diarrhea occurs, patients should notify their healthcare provider, consider starting antidiarrheal treatment, and monitor hydration status and increase oral fluids, if needed [see *Warnings and Precautions*].

Weight Loss

Inform the caregiver or patient that DAYBUE may cause weight loss and to notify their healthcare provider if weight loss occurs [see *Warnings and Precautions*].

Vomiting

Advise the caregiver or patient that DAYBUE can cause vomiting and if vomiting occurs after DAYBUE administration, do not take an additional dose, but continue with the next scheduled dose.

Storage

Keep bottles of DAYBUE oral solution upright and refrigerated before and after opening. Do not freeze [see *Storage and Handling*].

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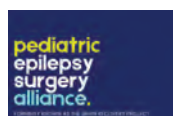
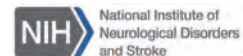
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# The Epilepsy Leadership Council

The Epilepsy Leadership Council (ELC) is a coalition of organizations and advocates representing people with epilepsy and their families. The ELC monitors advances in the epilepsy field, shares and disseminates information, and creates a united voice for advancing research, care, and education.

The Epilepsy Leadership Council is supported in part by a grant from Eisai Inc.



# Congratulations

## TO THE 2023 AMERICAN EPILEPSY SOCIETY AWARDEES



### **AES Distinguished Service Award**

**Elson L. So, MD, FAES**

Presented during the 21st Annual  
Judith Hoyer Lecture in Epilepsy  
Friday, December 1, 4:00 PM



### **Extraordinary Contributions to the Field of Epilepsy Award**

**Mary Anne Meskis**

Presented during the 21st Annual  
Judith Hoyer Lecture in Epilepsy  
Friday, December 1, 4:00 PM



### **Fritz E. Dreifuss Award**

**Kelly G. Knupp, MD, MSCS, FAES**

Presented during the  
Presidential Symposium  
Saturday, December 2, 8:45 AM



### **AES Founders Award**

**Bruce P. Hermann, PhD, FAES**

Presented during the  
Hot Topics Symposium  
Saturday, December 2, 2:30 PM



### **Rebecca Goldberg Kaufman AES Clinical Lecture in Ethical Neuropsychiatry Award**

**Karen L. Score, MS, APRN, CNRN**

Presented during the Best Practices in  
Clinical Epilepsy Symposium  
Sunday, December 3, 2:30 PM

### **J. Kiffin Penry Award for Excellence in Epilepsy Care**



**Dave Clarke, MBBS,  
ABPN, ABCN, FAES**



**Brenda E. Porter, MD,  
PhD, FAES**

Presented during the Epilepsy Therapies Symposium  
Monday, December 4, 9:00 AM



### **Basic Science Research Award**

**Dimitri M. Kullmann, FRS, FMedSci,  
DPhil, MAE**

Presented during the Lombroso Lecture  
Monday, December 4, 2:15 PM

**Award Presentation: From  
Channelopathy to Gene Therapy for  
Refractory Epilepsy**



### **Clinical Science Research Award**

**Matthias J. Koepp, MD, PhD**

Presented during the Lombroso Lecture  
Monday, December 4, 2:15 PM

**Award Presentation: From JME to AD:  
Imaging Through the Ages**



### **Lombroso Lecturer**

**Aristeia S. Galanopoulou, MD, PhD, FAES**

Presented during the Lombroso Lecture  
Monday, December 4, 2:15 PM

# WELCOME TO THE CITY BEAUTIFUL

On behalf of the AES Board of Directors, I am thrilled to welcome you to the 77th Annual Meeting of the American Epilepsy Society. Thank you for joining us in Orlando!

Here in Orlando, we are on Miccosukee, Seminole, and Timucuan land. The Miccosukee Tribe of Indians of Florida and their Seminole and Timucuan relatives have lived in Florida since time immemorial. We say “shohn-nah-besh,” or “thank you,” to the Miccosukee and Seminole people for continuing to set an example of political autonomy and cultural preservation in Florida.

We take pride in making our meeting an engaging and inclusive space to connect, and we are honored to host you – the best and brightest in the field of epilepsy – for five days of top-notch learning, scientific breakthroughs, and valuable networking. After all, it’s your collective efforts that make our society and our meeting great. It’s you and your tireless work towards our shared mission, and your dedication, that makes a difference in the lives of people with epilepsy.

Whatever your career stage and whether you are a clinician, clinical researcher, neuroscientist, neurosurgeon, nurse, industry specialist, patient advocate, or in another role, **this is where you belong.**

In 2023, there is something for everyone, regardless of your professional background, career stage, or scientific interest. With 40 special interest groups (SIGs) and 20 investigators workshops (IWs), you are guaranteed to find a topic that interests you! And don’t miss the poster hall. With more than 1,400 posters on display, this is a banner year for abstracts at AES! Our symposia and special lectures cover a wide range of topics, advances, and challenges in epilepsy. We are proud to foster the collaboration between epileptologists and surgeons, to ensure the best possible outcomes for patients, with two offerings – the Neurosurgery Symposium covering current methods and procedures related to epilepsy surgery and, new this year, a full-day epilepsy surgery workshop. I am excited to focus this year’s Presidential Symposium on the evolution of epilepsy therapies. My colleagues and I will discuss therapies currently in the pipeline, benefits and risks, and how these therapeutic approaches apply to patient care.

In the spirit of belonging and celebrating different perspectives, I encourage you to plan to attend sessions that underscore our commitment as a Society to diversity, equity, and inclusion (DEI). The Hot Topics Symposium will discuss ways to address the difficult questions of health equity in vulnerable populations, the ILAE North American Commission Symposium will focus on bridging disparities in epilepsy care, the always-popular Broadening Representation and Inclusion by Growing Diversity and Equity (BRIDGE) poster session highlights the research of individuals historically underrepresented in science and medicine or addressing healthcare disparities, and you will find a list of many other sessions that focus on DEI in the meeting app. It is important for us to bring this programming and these messages to Florida, and to make our values and commitment to DEI heard.

Finally, I am proud that as a community we continue to invest in and support those who are early in their careers in the field. The number of residents, fellows, and early career professionals at our meeting continues to grow – I urge you to take the opportunity to meet, engage, and connect with them while here.

**You belong here.** No matter your role, no matter your career stage, no matter how you identify or who you are. You belong at AES, and I am so happy you are here.

Enjoy the meeting —

**Manisha N. Patel, PhD, FAES**

President, American Epilepsy Society



**Manisha N. Patel, PhD, FAES**  
President

# Board of Directors

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# AES RESEARCH GRANTS

Thanks to the generosity of AES members, donors, and non-profit partners, AES is one of the largest non-governmental funders for those starting careers in epilepsy research.

## FOR EARLY CAREER INVESTIGATORS

\$150,000 over two years	Sergievsky Award for Epilepsy Health Equity and Diversity
Up to \$30,000	Predoctoral Research Fellowships
Up to \$50,000	Postdoctoral Research Fellowships
Up to \$50,000	Junior Investigator Research Awards
Up to \$50,000	Research and Training Fellowship for Clinicians
Up to \$50,000	Pediatric Research and Training Fellowship for Clinicians, funded by AES and Pediatric Epilepsy Research Foundation
Up to \$22,000	Epilepsy Study Consortium Mini-Grants
\$150,000 over two years	Susan S. Spencer, MD, Clinical Research Training Fellowship in Epilepsy ( <i>not currently accepting proposals</i> )

Early Career Grants are supported in part by the Sergievsky Research Fund for Epilepsy Health Equity and Diversity, The Lennox & Lombroso Trust for Research and Training, and the Susan S. Spencer Fund for Clinical Research and Education.

## FOR ESTABLISHED INVESTIGATORS

*The application period for these grants will open in early 2024.*

Up to \$50,000	AES Infrastructure Grants
Up to \$20,000	AES Seed Grants
Amounts Vary	Research and Training Workshop Grants

**85%** of our research grant dollars support early career scientists working across the full spectrum of epilepsy research.

AES is proud to partner with these non-profit organizations to support highly reviewed proposals that align with the organizations' research priorities.



[Learn more at aesnet.org/research](https://aesnet.org/research)



# WELCOME TO THE 77TH ANNUAL MEETING OF THE AMERICAN EPILEPSY SOCIETY!

Dear Colleagues,

We are excited to host you here, in Orlando, and look forward to the learning, science, ideas to be shared, and connections to be made at this year's meeting. AES 2023 covers the latest science, clinical knowledge, and epilepsy education—thank you for joining us for what is certain to be the best AES Annual Meeting yet.

We are proud of our long-standing multidisciplinary tradition, offering an inclusive and inspiring space where epilepsy professionals from all disciplines and career stages can gather, and work together towards our common goal of improving outcomes and quality of life for people with epilepsy and their families.

At AES 2023, you have access to a myriad of symposia, workshops, and SIGs that offer CE and CME, plus enjoy professional development sessions, special lectures, and more programming than ever before.

## Some AES 2023 highlights include:

**Symposia and the Annual Course:** This year, our 14 symposia offer new and exciting insights into relevant topics in epilepsy care and research.

**Special Sessions:** In addition to the celebrated Hoyer and Lombroso lectures, special lectures include a session on epilepsy research benchmarks, an AES-NAEC joint coding session, and a review and discussion regarding the Intersectoral Global Action Plan on Epilepsy and Other Neurological Disorders (IGAP).

**Investigator Workshops and Special Interest Groups:** Broaden your knowledge horizons, ranging from basic through clinical fields, in our always-popular Investigators Workshops. Connect with colleagues who share your interests in 40 SIGs on varied topics for professionals across the field of epilepsy.

**Poster Sessions:** Explore cutting-edge research in poster sessions Saturday through Monday. Check each session in this program for author present times and for information on walking tours.

**Professional Development:** Enjoy career skills workshops, strategic career planning, interview tips and finding the right job, and the early career grant process. Our career pathways panels are back with four concurrent sessions: interprofessional careers, research, and clinical care; and new this year—non-academic and alternative careers.

**Skills Workshops in Basic and Clinical Science:** Advance your clinical and practical skills with hands-on workshops. Topics include genetics, EEG, neurostimulation, intracranial electrode studies, neuroimaging, and more.

## Again, welcome.

We hope that the learning at AES 2023 energizes and inspires you with new clinical knowledge, relevant research, and new professional connections that will help you advance the care of individuals with epilepsy.

## About AES

The American Epilepsy Society is a community of physicians, scientists, advanced practice providers, nurses, psychiatrists, psychologists, engineers, pharmacists, advocates, and other professionals engaged in the understanding, diagnosis, study, prevention, treatment, and cure of epilepsy.

We are dedicated to advancing knowledge and supporting evidence-based clinical practice to improve outcomes for persons with epilepsy and their families.

## We value:

- Better outcomes for persons with epilepsy
- Innovation
- Inclusivity, diversity, and equity
- Collaboration
- Fairness, transparency, integrity, and excellence



AMERICAN EPILEPSY SOCIETY

[aesnet.org](https://aesnet.org)

Executive Office  
135 S. LaSalle St.  
Suite 2850  
Chicago, IL 60603  
312-883-3800



**Ignacio Valencia, MD, FAES**  
Co-Chair, Annual Meeting Committee



**Barbara C. Jobst, MD, Dr. med, FAAN, FAES**  
Co-Chair, Annual Meeting Committee



**Alica Goldman, MD, PhD, FAES**  
Vice Chair, Annual Meeting Committee

Registrants: Find the most up-to-date information at [aesnet.org/AES2023](https://aesnet.org/AES2023)

[www.aesnet.org](https://www.aesnet.org)

# About the Meeting

## Orange County Convention Center

9800 International Drive | Orlando, FL 32819

### Land Acknowledgment Statement

We are on Miccosukee, Seminole, and Timucuan land. The Miccosukee Tribe of Indians of Florida and their Seminole and Timucuan relatives have lived in Florida since time immemorial. The Miccosukee and Seminole people held onto the southernmost extent of their range through fierce resistance over a half century of guerilla warfare with the U.S. military, while most Timucuan were removed to Cuba by the Spanish Empire a century prior. Orlando's history as a non-Native settlement dates back to Fort Gatlin, built in 1838 during the Second Seminole War when the Miccosukee and Seminole were being pushed out of their Central Florida reservation and into the Everglades, where they live today. We say shohn-nah-besh, thank you, to the Miccosukee and Seminole people for continuing to set an example of political autonomy and cultural preservation in Florida.

### Download the AES 2023 Mobile App!



Download the AES 2023 mobile app today! The app will allow you to build your schedule by saving sessions and events; find your way around the meeting with interactive maps; search for activities, exhibitors, speakers, posters, abstracts, and more; and connect with other attendees using PeerFinder (prior opt-in required). The app is the home of AES 2023 Digital Select, where you will access any recorded, on-demand content after the meeting.



### Digital Select (On-Demand Access)

AES 2023 Digital Select is the home of all content recorded at the in-person meeting that will be hosted within the meeting app for approximately ninety days after the meeting concludes. AES 2023 Digital Select includes recordings of select education sessions and access to the online poster hall. On-demand access will begin on or about Tuesday, December 5, 2023.

### Convention Center Wi-Fi

Complimentary basic Wi-Fi is available throughout the convention center's AES meeting rooms and public concourse spaces. Login: OCCC Free Wi-Fi. No password is required. Wi-Fi is not available in the exhibit hall.

**These wireless networks are not secure and should not be used for sending sensitive information. The bandwidth provided supports casual use for checking emails and light web surfing.**

### Coat and Luggage Check

**Convention Center, West C Lobby, Level 2, in concourse next to Guest Services**

Coat check hours are listed on signage. A nominal fee per item applies. Laptops, cameras, and other electronics will not be accepted.

### First Aid

**Convention Center, West C Lobby, Level 2, to left of West Hall C entrance**

Services are available from a licensed medical professional during session hours. Please note that in accordance with regulations, the first-aid administrator is not permitted to dispense medication.

- **Emergency:** Call 911. Be prepared to advise the dispatcher of your exact location within the convention center.
- **Non-emergency:** Call building security at (407) 685-9828 or dial 5-9828 from a house phone.

### Parents' Room

**Convention Center, W231 A, Level 2**

Nursing parents are invited to use this room at the convention center, available during session times. This space has two private, curtained-off areas. Both are equipped with a chair, side table, and electrical outlet. A shared refrigerator is available in the room. Restrooms are available across the hallway. Infant care supplies are not provided. Use of the refrigerator is at the risk and responsibility of the attendee.

### Quiet Room

**Convention Center, W225 A, Level 2**

This room is intended to provide a comfortable, quiet, and calm space where attendees can spend time away from noise, lights, and other stimuli. The quiet room is not available for conversations or meetings.

### All Gender Restroom

**Convention Center, Level 2, Across from W231 B**

AES provides gender neutral restrooms for all attendees. The restroom will have a Gender-Neutral sign at the entrance. Locations are indicated on the convention center floor plan on page 11.

### Lost and Found

**Registration Desk, Convention Center, West C Lobby, Level 2**

Meeting and session rooms are cleaned between sessions and any items left behind will be discarded. Please visit the registration desk to look for lost items or to turn in items found. Unclaimed items will be turned in to convention center security at the conclusion of the meeting. AES is not responsible for lost or missing items.



# About the Meeting

## Business Centers

Business centers are conveniently located within the Orange County Convention Center West Concourse and the Hyatt Regency. A variety of services offered include shipping, mailing, faxing, and photocopying. Please contact each business center directly for details.

### Orange County Convention Center West Concourse FedEx Business Center

**Location:** 9800 International Dr.  
Orlando, FL 32819  
**Phone:** (407) 363-2831  
**Email:** USA3996@fedex.com

### Hyatt Regency Orlando Business Center 11th Hour Business Center

**Location:** 9801 International Dr.  
Orlando, FL 32819  
**Phone:** (407) 345-4466  
**Email:** ssproat@11thhourbiz.com

## Meeting Policies



During registration, all attendees agreed to abide by the policies that govern the AES Annual Meeting. Scan the QR code at left to view all policies or visit [aesnet.org/policies](https://aesnet.org/policies).

### Participant Video, Photo, and Audio Release

AES uses photographs of meeting events in its promotional materials. Unless the permission is revoked in writing to AES; by attending, all attendees and visitors agree to the use of their likeness in such materials.

### Video, Photo, or Screen Capture of Event Content

AES strictly prohibits photography, video and audio recordings, and screen captures in all educational sessions. The use of live-streaming software, such as Zoom or live social media feeds, is also prohibited.

Material presented at the AES Annual Meeting may not be reproduced in any format without the express written consent of AES or the otherwise applicable rights holder. By registering, participants acknowledge and agree that commercial or promotional distribution, publishing, or exploitation of speaker sessions, content, or materials from the event is strictly prohibited.

Violations of the AES recording, video, and image capture policy may result in removal from the session and possible revocation of event registration (for the live event and/or for on-demand access) without refund of any registration or other fees and expenses.

**The single exception:** Photographs of individual posters are permitted in the in-person poster hall unless a NO PHOTOS placard is on the upper right-hand corner of the poster next to the poster number. It is the responsibility of the registrant to look for and confirm the presence or absence of the NO PHOTOS placard before taking photographs.

Registrants: Find the most up-to-date information at [aesnet.org/AES2023](https://aesnet.org/AES2023)

In the virtual poster hall, photography, screen captures, or other images of ePosters are prohibited.

### AES 2023 Digital Select Platform User Responsibility

All participants in any on-demand aspects of the 2023 AES Annual Meeting, including registrants, faculty, speakers, exhibitors, sponsors, event attendees, and others, are responsible for ensuring that their computers and/or mobile devices, their internet and Wi-Fi capacity, and their electrical/battery support are sufficient to fully engage in any virtual offering(s).

Refunds will not be provided to participants due to technology and/or connectivity problems or outages, whether resulting from the participant's own systems or a more widespread virus or outage.

### Harassment

AES is committed to supporting educational and scientific dialogue, and to fostering a welcoming community in which all participants can contribute fully. Reflecting these values, AES will not tolerate harassment in any form.

We expect all attendees, media, speakers, volunteers, organizers, venue staff, guests, and exhibitors at AES-organized events to help us ensure a safe and positive environment. Anyone violating these rules may be sanctioned or expelled from the conference without a refund at the discretion of the conference organizers. This policy applies to all activities and events where AES is the primary sponsor.

Anyone who feels harassed, or who witnesses harassing behavior, is encouraged to inform the AES CEO, AES meetings manager, the AES President, or any AES Board member. For the full AES anti-harassment policy, please visit [aesnet.org/policies](https://aesnet.org/policies).

### Safety and Security Information

The following security measures have been designed to keep you safe during the AES Annual Meeting:






- **Emergencies:** Call 911. Be prepared to advise the dispatcher of your exact location within the convention center.
- **Non-emergency needs:** Call convention center security at (407) 685-9828. You can also use a house phone and dial 5-9828.
- **Security staff:** Security will be present throughout the meeting to monitor the safety and security of the hotels, convention center, and attendees.
- **Badges:** Badges must be worn in the convention center and hotel at all times during the AES Annual Meeting.
- **Bag checks:** Convention center security may check packages and bags at entrances, in meeting rooms, and in the exhibit hall.
- **Session rooms:** Due to safety and fire regulations, doors will be closed to session rooms that fill to capacity.

# Hotel Floor Plan

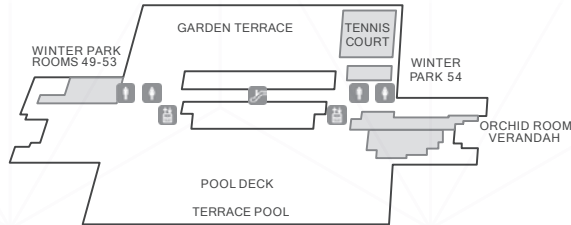
## Hyatt Regency Orlando

9801 International Drive

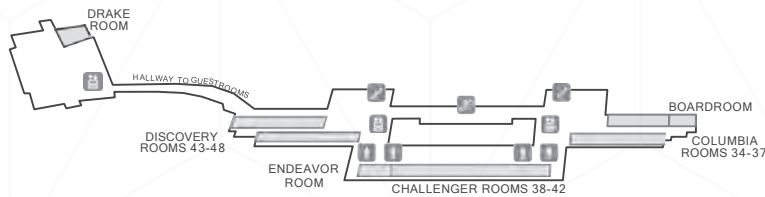
### KEY

-  Restrooms
-  Escalator
-  Stairway
-  Elevator
-  Information
-  ATM

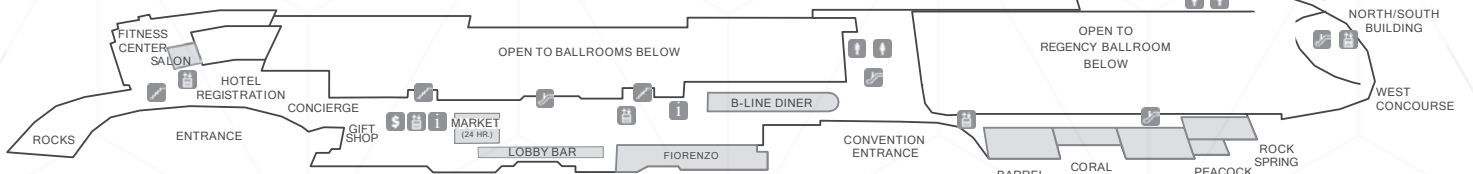
### FLOOR 4



### FLOOR 3

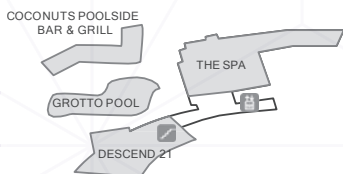


### LOBBY

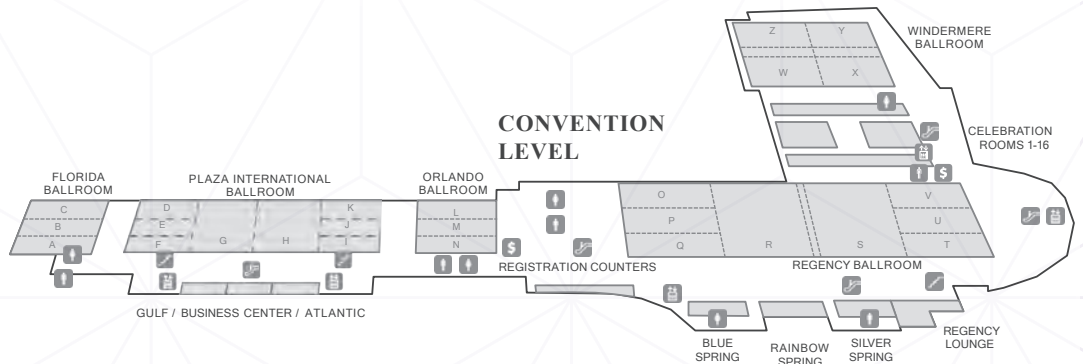


**SKYWALK TO  
CONVENTION CENTER  
WEST CONCOURSE**

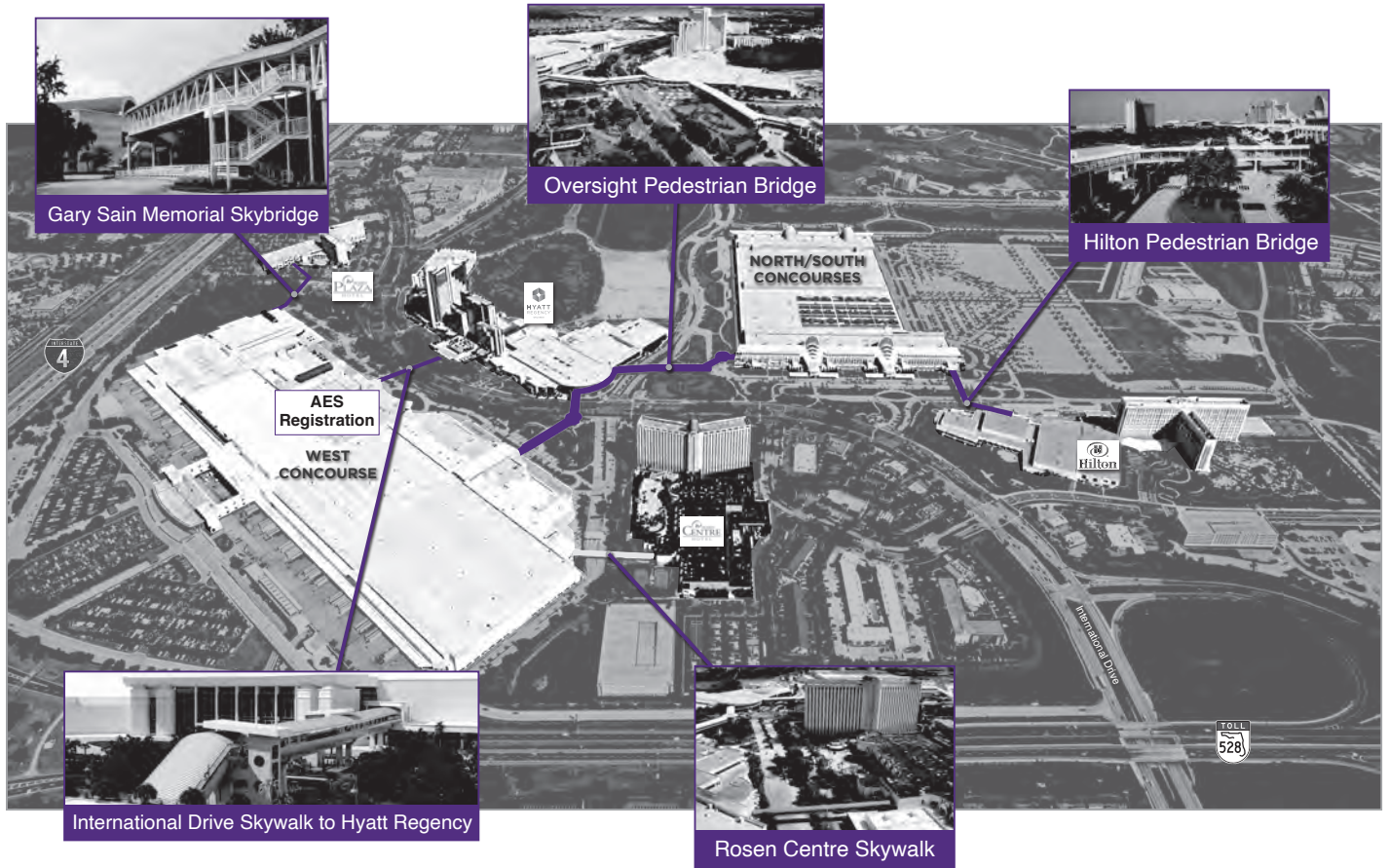
### FLOOR 1



### CONVENTION LEVEL















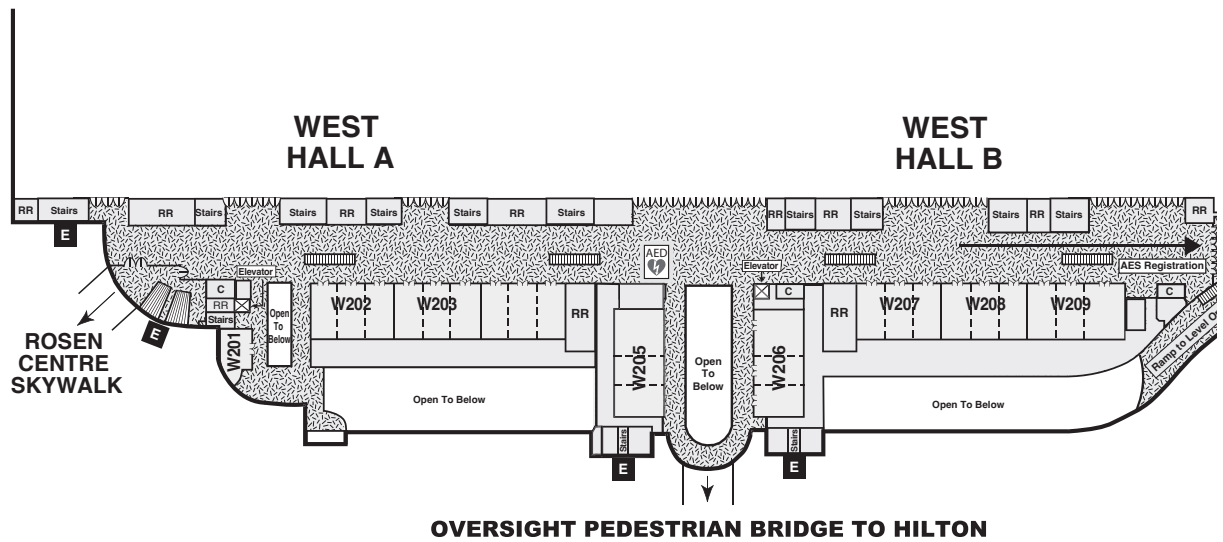
# Orange County Convention Center District Map



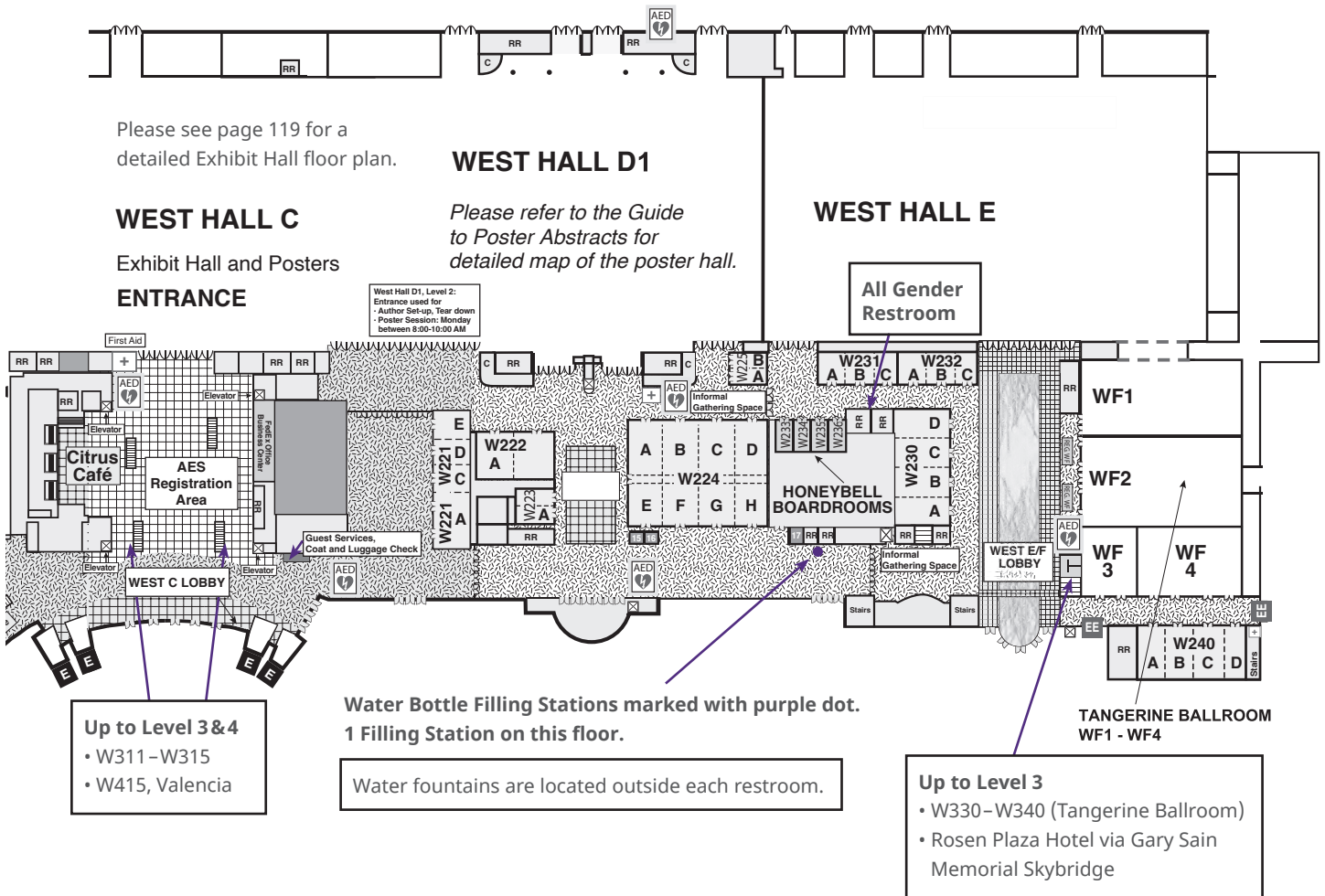
# Orange County Convention Center

## WEST CONCOURSE, LEVEL 2

LEGEND	
 Automated External Defibrillator (AED)	 FedEx Office Business Center
 Concourse	 First Aid
 Concourse-Carpet	 Guest Services/Information
 Elevator	 Meeting Room
 Emergency Exit Only Access	 Restroom
 Escalator	
 Exit Only	



# Orange County Convention Center



## LEVEL 2:













- **All Gender Restroom:** Across from W231
- **Business Center:** West C Lobby
- **Coat and Luggage Check:** Next to Guest Services
- **Exhibit Hall and Posters**
- **Faculty Ready Room:** W221 A
- **First Aid:** Left of West Hall C entrance
- **Guest Services:** West C Lobby in concourse
- **Informal Networking Areas:** Outside W224 C and in West E/F Lobby
- **Member Center:** West C Lobby
- **Parents' Room:** W231 A
- **Poster Concierge:** West C Lobby and West Hall C
- **Press Room:** W223 A
- **Quiet Room:** W225 A
- **Registration Area:** West C Lobby

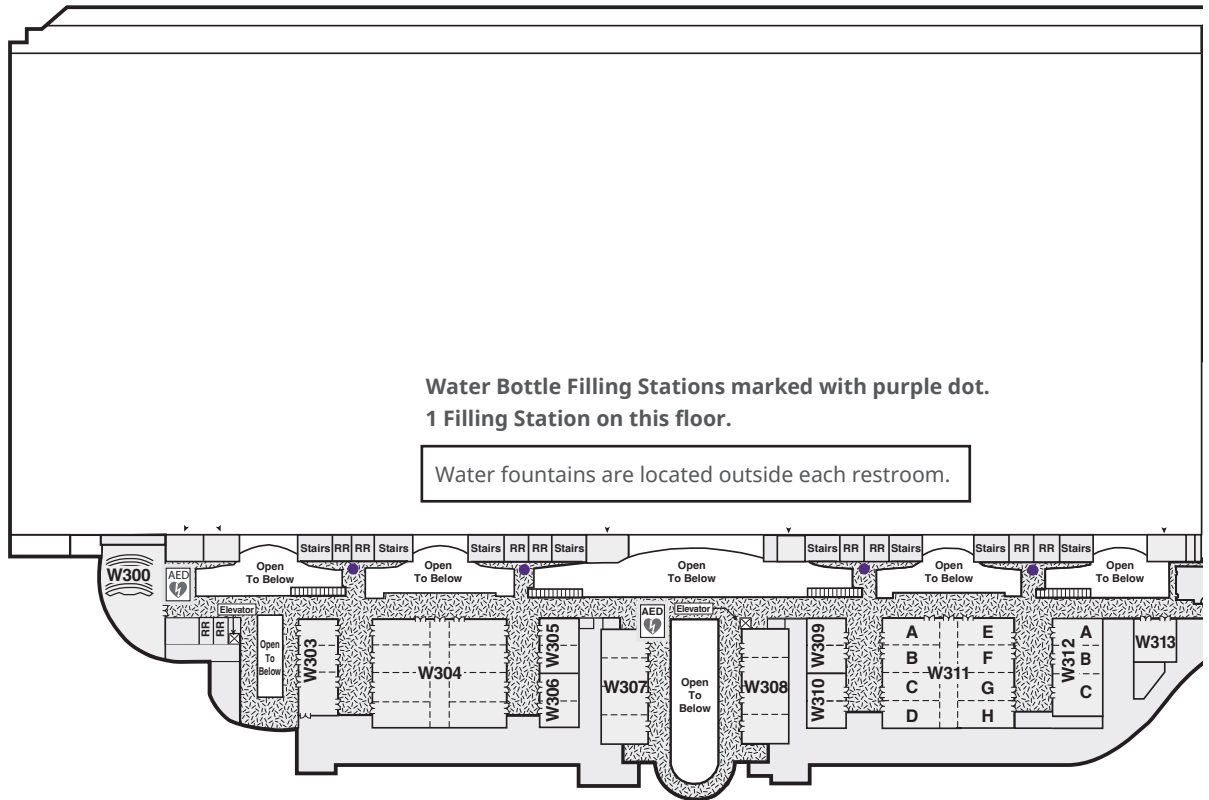
## LEVEL 3:

- **Scientific Exhibits:** W314-W315

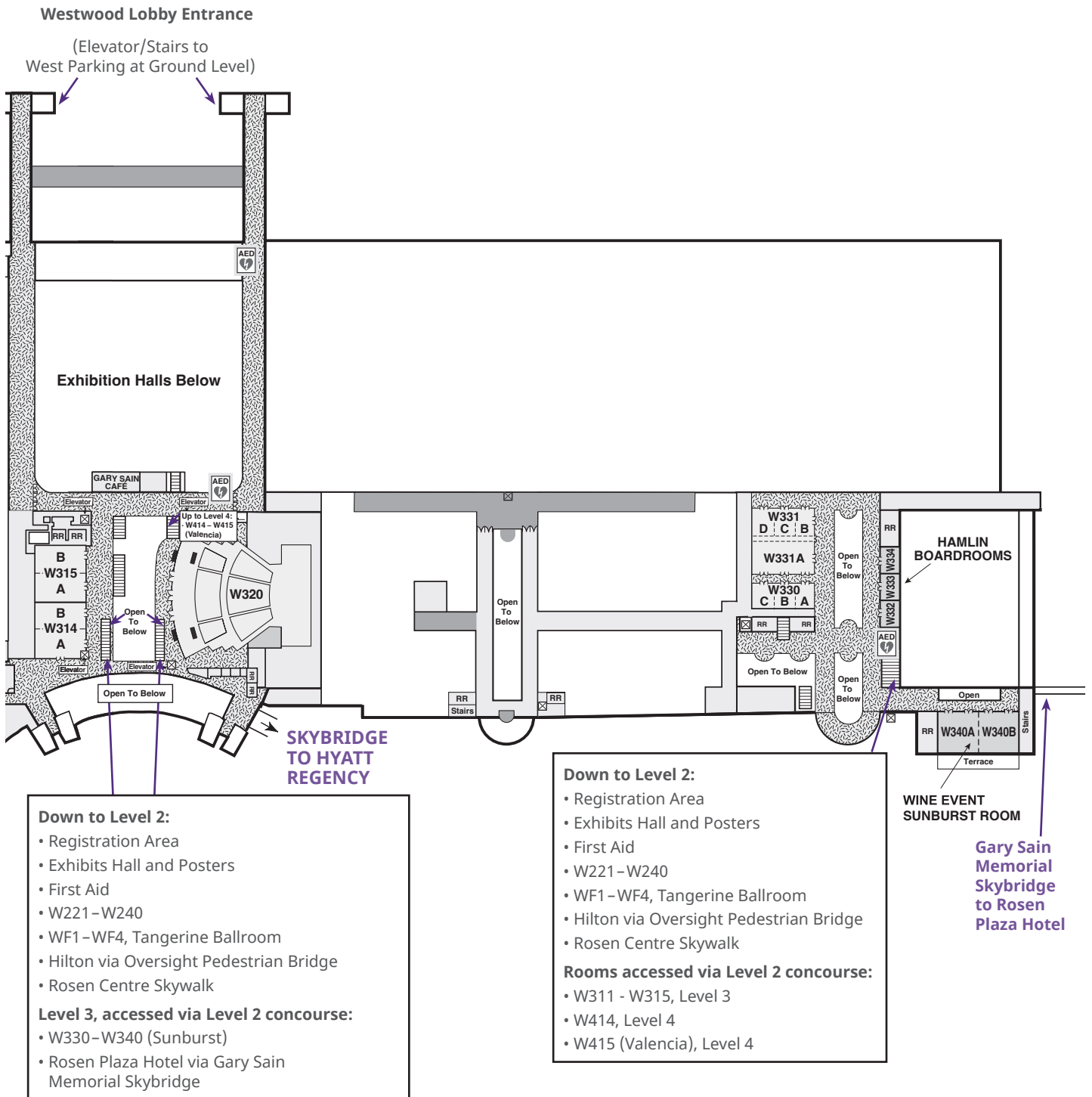
# Orange County Convention Center

## WEST CONCOURSE, LEVEL 3

L E G E N D	
 Automated External Defibrillator (AED)	 FedEx Office Business Center
 Concourse	 First Aid
 Concourse-Carpet	 Guest Services/Information
 Elevator	 Meeting Room
 Emergency Exit Only Access	 Restroom
 Escalator	
 Exit Only	















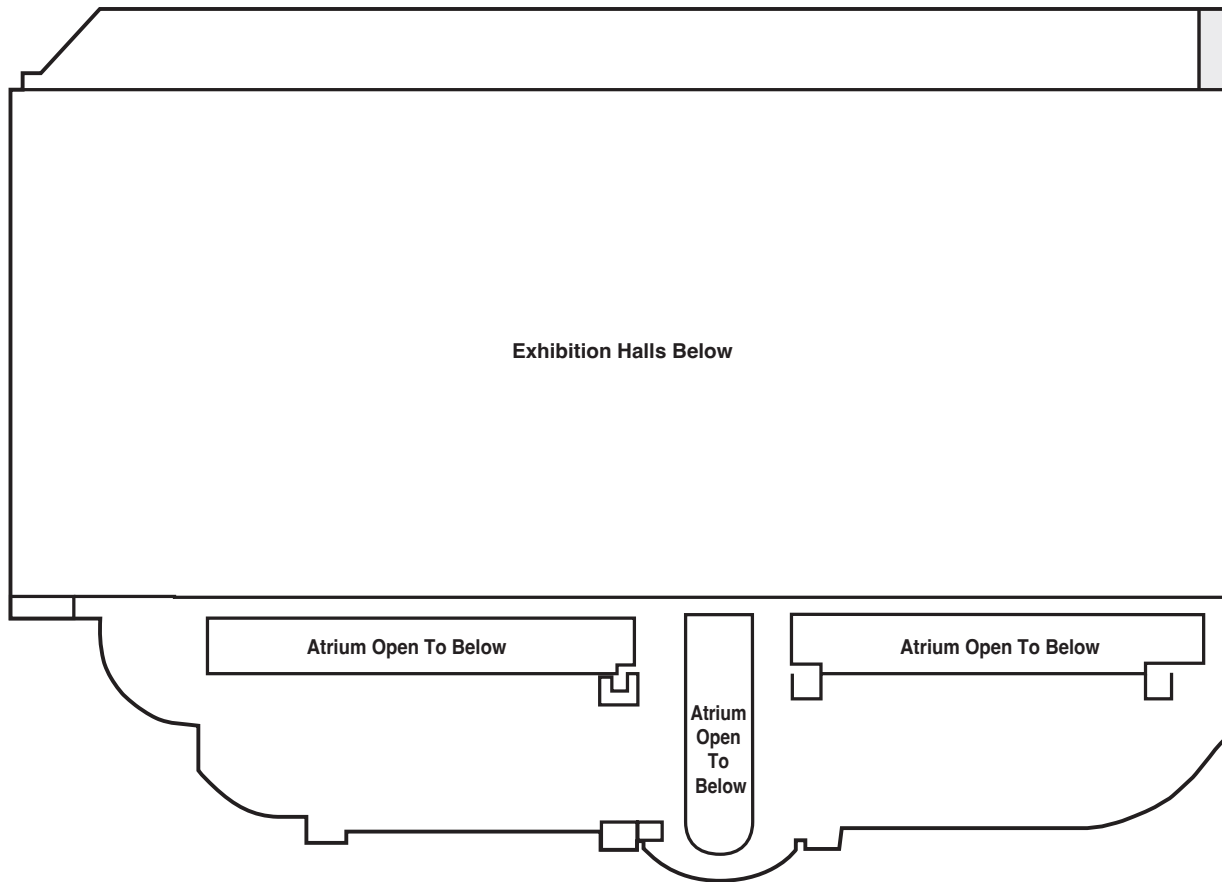
# Orange County Convention Center



# Orange County Convention Center

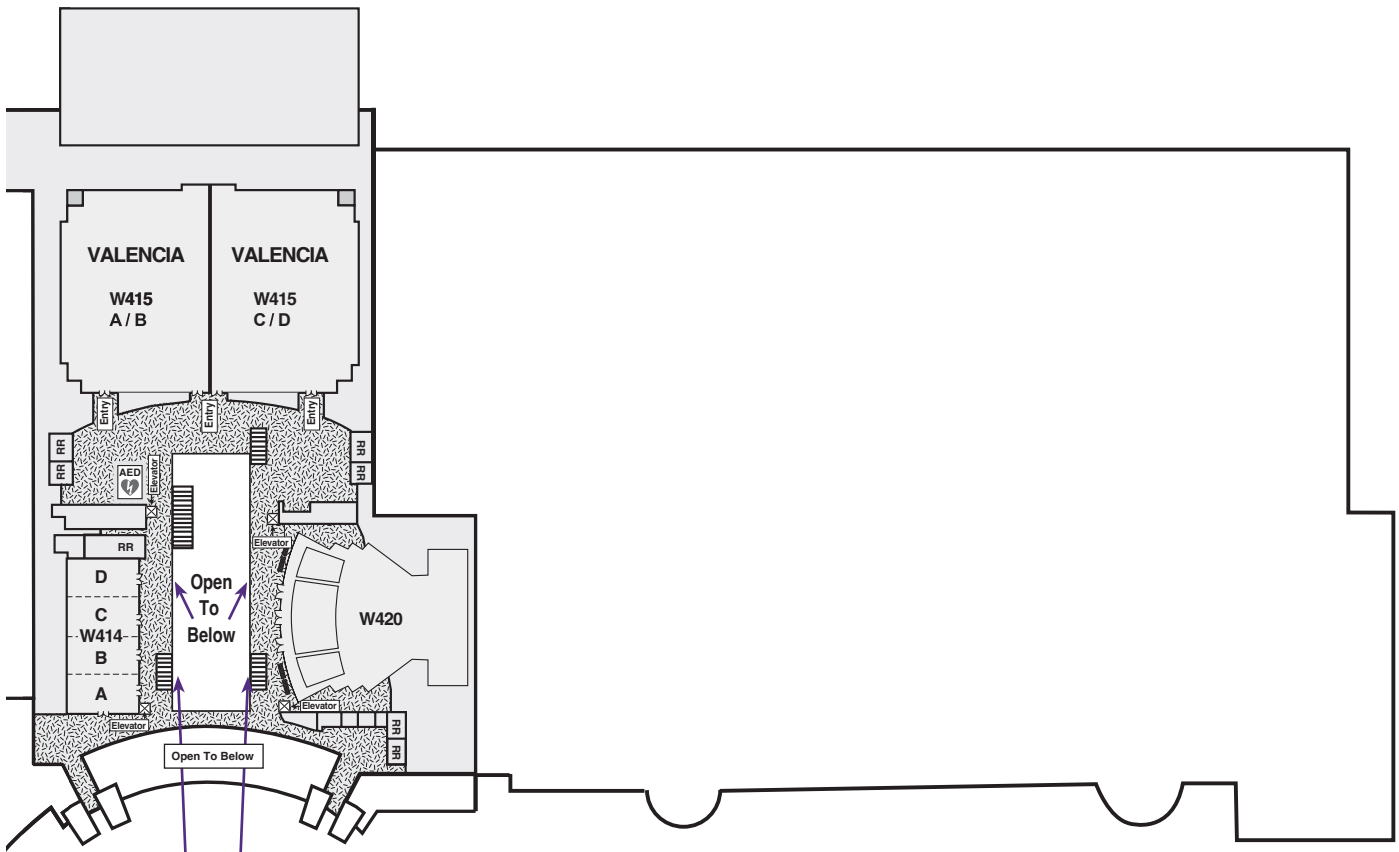
## WEST CONCOURSE, LEVEL 4

L E G E N D	
 Automated External Defibrillator (AED)	 FedEx Office Business Center
 Concourse	 First Aid
 Concourse-Carpet	 Guest Services/Information
 Elevator	 Meeting Room
 Emergency Exit Only Access	 RR Restroom
 Escalator	
 Exit Only	





# Orange County Convention Center



## Down to Level 3:

- W311 - W315
- Hyatt Regency Skybridge

## Level 3, accessed

### via Level 2 concourse:

- W330 - W340 (Sunburst)
- Rosen Plaza Hotel via Gary Sain Memorial Skybridge

## Down to Level 2:

- Registration Area
- Exhibits Hall and Posters
- First Aid
- W221 - W240
- WF1 - WF4, Tangerine Ballroom
- Hilton via Oversight Pedestrian Bridge
- Rosen Centre Skywalk

# About the Education Program

## Statement of Need

The need for this activity has been determined based on identifying professional practice gaps, previous course evaluations, and AES self-assessments. The educational content of this activity was based upon current issues and topics provided by the AES Annual Meeting Committee and membership.

## Target Audience

Neurologists, epileptologists, pediatric neurologists, nurses, psychologists, neuropsychologists, nurse practitioners, physician assistants, pharmacists, researchers, and scientists.

## Global Learning Objectives

This comprehensive educational meeting provides learners with opportunities to:

- Increase knowledge about the diagnosis and treatment, including novel diagnostic methods and therapeutic modalities, of various manifestations of epilepsy and common comorbidities to enhance clinical practice and improve patient outcomes.
- Be informed about the latest research developments in epilepsy that may translate into clinical care and human therapy in the near future.
- Consider the public health implications of epilepsy and the impact of the disease on patients, communities, and health systems.

**Note: Each session has its own specific learning objectives, which can be found in the program.**

## Mission Statement

The American Epilepsy Society promotes research and education for physicians and other healthcare professionals dedicated to the prevention, treatment, and cure of epilepsy. Its continuing professional education (CPE) offers an array of activities to assist the learner in assessing their educational needs and expanding their knowledge, competence, and performance in the field of epilepsy, which leads to an improvement in the outcomes of care.

The CPE program always reinforces the fundamental components of epilepsy care in accordance with an epilepsy core curriculum, including quality improvement and patient safety. In addition, its educational interventions also provide an opportunity to advance professional practice in new and emerging areas of the specialty. In recognition of the importance of the added qualification in epilepsy by the American Board of Psychiatry and Neurology, as well as the Continuing Certification (CC) requirements, AES is committed to the provision of educational opportunities and tools that aid in the certification and CC requirements.

The expected results of the AES program of continuing professional development are as follows:

- The AES CPE Program fosters a culture of interprofessional collaboration amongst the cadre of professionals that care for persons with epilepsy.
- The AES CPE Program enhances the professional practice of healthcare professionals who care for persons with epilepsy.
- The AES CPE Program provides education in epilepsy therapy to increase the competence of clinicians in the use of these complex and multi-layered options to manage epilepsy in patients.
- The AES CPE Program uses educational interventions as a tool to improve the quality of care and patient safety of persons with epilepsy.

## Accreditation

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

## AMA PRA Category 1 Credit™ Designation

AES designates this live activity for a maximum of 38.75 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

The American Medical Association has determined that non-U.S. licensed physicians who participate in this CME activity are eligible for *AMA PRA Category 1 Credits™*.

## Physician Assistants

AAPA accepts certificates of participation for educational activities certified for *AMA PRA Category 1 Credits™* from organizations accredited by ACCME or a recognized state medical society. Physician assistants may receive a maximum of 38.75 hours of Category 1 credit for completing this program.

## Continuing Education for Nurses and Pharmacists

In support of improving patient care, this activity has been planned and implemented by the American Epilepsy Society and Amedco. In support of improving patient care, Amedco is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC) to provide continuing education for the healthcare team.

This activity is eligible for ANCC and ACPE credit. At the time of printing this program, the application was still under review and pending approval. **Please refer to [aesnet.org/AES2023](https://aesnet.org/AES2023) accredited for a complete list of accredited sessions.**

# About the Education Program

## Continuing Certification

The American Board of Psychiatry and Neurology has reviewed the AES 2023 Annual Meeting and has approved this program as part of the comprehensive Continuing Medical Education (CME) program, which is mandated by the ABMS as a necessary component of Continuing Certification.

## Evaluation and Credit Claim

Those who participate in the live meeting can claim up to 38.75 *AMA PRA Category 1 Credits™*. Live meeting participants may also claim credit for select on-demand sessions in Digital Select, totaling up to 56.00 *AMA PRA Category 1 Credits™*.

## Disclosure Policy and Resolution of Conflicts of Interest

It is the policy of the American Epilepsy Society to ensure balance, independence, objectivity, and scientific rigor. All individuals involved in the planning, development, and presentation of CME content are required to disclose any relevant relationships with ineligible companies. Conflicts of interest will be resolved by AES prior to an educational activity being delivered to learners. In accordance with the ACCME Standards for Integrity and Independence in Accredited Continuing Education, AES has implemented the mechanisms of prospective peer review of this CME activity to identify and resolve any relevant financial relationships with ineligible companies. Additionally, the content of this activity is based on the best available evidence.

Planner and faculty disclosures can be found on the Annual Meeting website. All relevant financial relationships have been mitigated.

## Unapproved Use Disclosure

The American Epilepsy Society requires CME authors to disclose to learners when products or procedures being discussed are off-label, unlabeled, experimental, and/or investigational (not FDA approved); and any limitations on the information that is presented, such as data that are preliminary or that represent ongoing research, interim analyses, and/or unsupported opinion. This information is intended solely for continuing medical education and is not intended to promote off-label use of these medications. If you have questions, contact the medical affairs department of the manufacturer for the most recent prescribing information. Information about pharmaceutical agents/devices that is outside of U.S. FDA-approved labeling may be contained in this activity.

## Disclaimer

This CME activity is for educational purposes only and does not constitute the opinion or endorsement of, or promotion by, the American Epilepsy Society. Reasonable efforts have been taken to present educational subject matter in a balanced, unbiased fashion, and in compliance with regulatory requirements.

However, each activity participant must always use his or her own personal and professional judgment when considering further application of this information, particularly as it may relate to patient diagnostic or treatment decisions, including, without limitation, FDA-approved uses and any off-label, investigational, and/or experimental uses.

## Annual Meeting Sessions

The AES Annual Meeting offers high-quality educational programming across diverse work settings, professional roles, and experience levels. Whether you are just starting with the specialty, have a limited background in epilepsy, or are highly fluent with complex topics, you will find sessions and content relevant to your needs.

## Session Types

**Annual Course:** Encourages in-depth exploration of important topics related to epilepsy, focused on clinical care, including review of the science underlying the topics, reviews of clinical research, and discussion of the associated clinical implications. The Annual Course includes a mixture of educational lectures, clinical vignettes, and panel discussions.

**Basic Science Skills Workshops:** Deliver learning opportunities on basic science research techniques and methodologies. Attendees will learn about approaches and applications they can incorporate into their own research. *Included in meeting registration fee.*

**Clinical Skills Workshops:** Deliver hands-on and interactive learning opportunities in focused clinical areas. Attendance at each workshop is limited to a small number of participants to allow optimal interaction. *Advance registration and an additional fee are required.*

**Dialogues to Transform Epilepsy:** This session introduces transformative neurobiological research from outside the epilepsy field, with discussions on how those advances could accelerate progress in epilepsy.

**Epilepsy Fellowship Program Directors Meeting:** Provides a forum for current clinical epilepsy program directors, clinical neurophysiology program directors, and those interested in starting an ACGME Fellowship, to address challenges in running a program and meeting accreditation requirements. This session will meet ACGME program requirement II.A.4.

**Investigators Workshops (IW):** Highlight exciting developments in basic, translational, and clinical epilepsy research in a format promoting interactive discussion. Speakers include established and junior epilepsy investigators, as well as researchers from other fields.

## About the Education Program

**Poster Sessions:** Posters are grouped by general topic category at various times throughout the meeting. Poster authors are available for discussion during each session. Check the program for author present times. In addition, the following special poster sessions offer additional times to interact with authors:

**Poster Walking Tours:** Tours of selected posters led by leading experts in topic areas.

**Basic Science Poster Session:** This session features the most exciting and innovative studies focused on understanding the basic mechanisms of epilepsy and using cutting edge approaches to understand and treat the mechanisms of epilepsy.

**Platform Sessions:** Three concurrent sessions highlighting selected key scientific abstracts consisting of author presentations followed by Q&A.

**Pediatric Epilepsy Highlight Session:** This session showcases scientific abstracts focused on topics in clinical care and research in pediatric epilepsy.

**Broadening Representation Inclusion and Diversity by Growing Equity (BRIDGE):** This session spotlights research relating to the needs of underserved populations along with showcasing the work of accomplished investigators who identify with groups historically underrepresented in medicine and research.

**Professional Development:** Offers mentorship, training, and information geared to early career professionals or anyone considering a career change.

**Special Interest Groups (SIG):** Offer information and networking for attendees with similar interests, in sessions organized by AES members. Although the sizes of SIG sessions vary, all lend themselves to active participation and dialogue.

**Special Lectures:** Recognize the accomplishments of distinguished leaders in clinical epilepsy and research and /or highlight current developments in the field.

**Symposia:** Provide the major educational activities at the Annual Meeting. Topics range from clinically-oriented presentations reviewing common issues in epilepsy to more complex topics combining basic sciences and clinical neurology. While target audiences differ, all symposia include discussion of clinically relevant information.

## Industry Support

For a list of educational activities supported in part by industry medical education grants, please visit [aesnet.org/med-ed](https://aesnet.org/med-ed) or scan this QR code.



Thank you to the following organizations for their support in 2023:

- Child Neurology Foundation
- Medtronic
- Jazz Pharmaceuticals, Inc.
- UCB, Inc.
- Marinus Pharmaceuticals, Inc.



# AES<sup>®</sup> learn



## Year-round learning. More than just the meeting.

Keeping up with CME requirements and the ever-evolving field of epilepsy requires year-round opportunities to earn CME and further develop your skills and knowledge. AES is here to support you in your learning and career advancement with a variety of online learning activities available year-round.

### New in 2023 and Now Available On-Demand

#### Webinars

- Practical Tips on Genetic Testing in Patients with Epilepsy
- Practicing Cultural Competence and Humility in Epilepsy Care Settings
- The Assessment and Management of Postictal Psychosis
- New Paradigms in Intracranial Neuromodulation in Epilepsy
- Recognizing and Managing Mental Health Comorbidities in People with Epilepsy
- Principles of Patient Selection and Outcomes for LITT for Drug-resistant Epilepsy

#### eModules

- Antiseizure Medications and Pharmacology Pearls
- Epilepsy Self-management for Multilevel Primary and Behavioral Care Providers
- Empowering Epilepsy Patients: Standardized Self-management Programs in Your Clinic

#### Courses

- Therapeutic Considerations of Antiseizure Medications
- Nonpharmacologic Treatments for Epilepsy
- Living with Epilepsy
- The Role of Social Determinants of Health in Epilepsy
- Genetic Testing and Epilepsy
- Advances in Treatment for Epilepsy

Visit [aesnet.org/learn](https://aesnet.org/learn)  
to learn about the  
resources above  
and more!

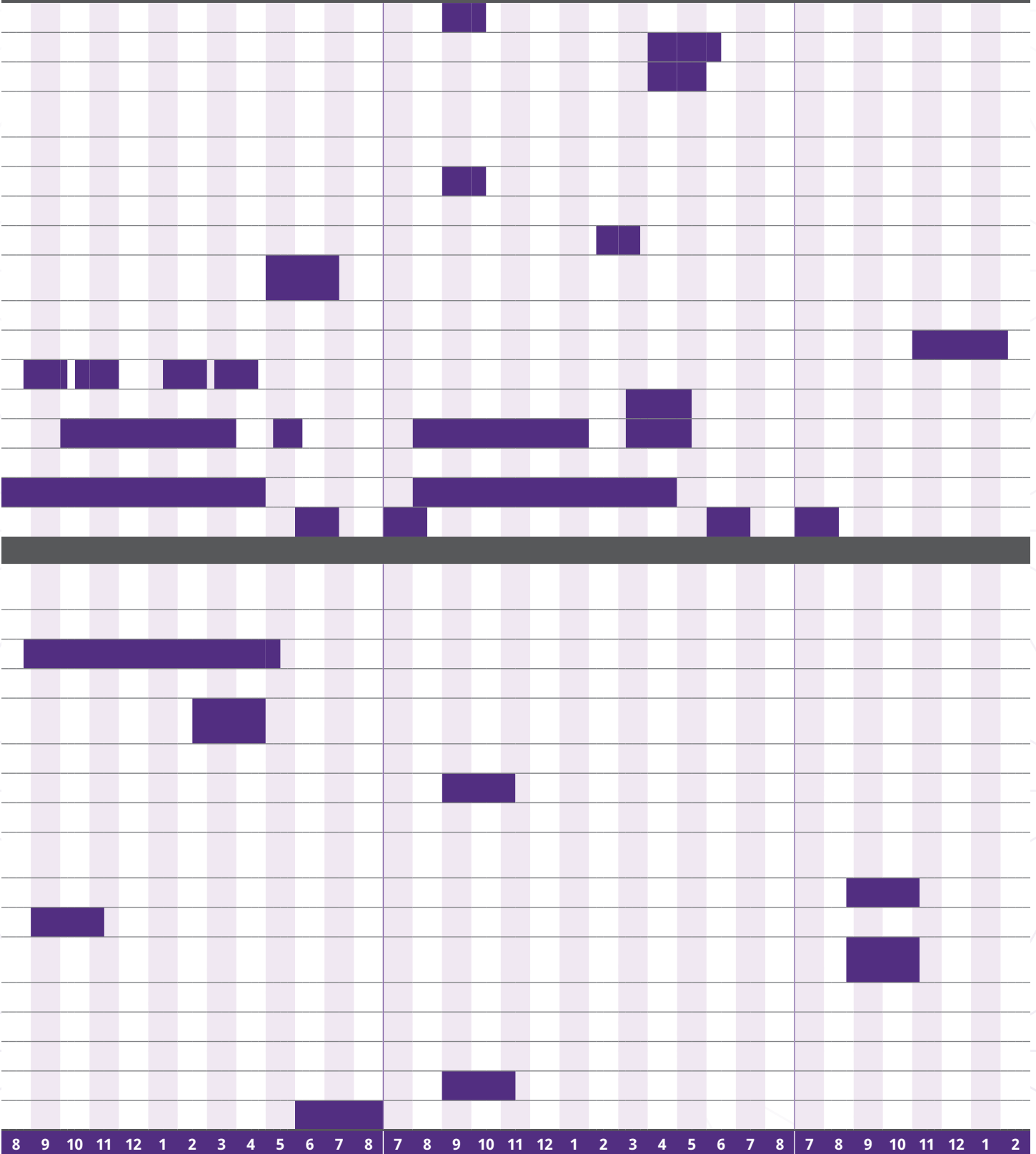
# Meeting at-a-Glance

Session Name	Friday, December 1								Saturday, December 2																				
	8	9	10	11	12	1	2	3	4	5	6	7	8	7	8	9	10	11	12	1	2	3	4	5	6	7	8		
<b>Special Lectures</b>																													
AES-NAEC Joint Coding Session																													
Clinical Practice Guidelines																													
Dialogues to Transform Epilepsy																													
Epilepsy Fellowship Program Directors Meeting																													
Epilepsy Research Benchmarks																													
ILAE-IBE Actioning the Action Plan																													
Judith Hoyer Lecture																													
Lombroso Lecture																													
The Multidisciplinary Patient-centered Team																													
<b>Basic Science Skills Workshops</b>																													
<b>Clinical Skills Workshops</b>																													
<b>Investigators Workshops</b>																													
<b>Platform Sessions</b>																													
<b>Poster Sessions</b>																													
<b>Professional Development</b>																													
<b>Scientific Exhibits</b>																													
<b>SIG Sessions</b>																													
<b>Symposia</b>																													
Advanced Practice Provider Symposium																													
AES-CNF Symposium																													
Annual Course																													
Annual Fundamentals Symposium																													
Best Practices in Clinical Epilepsy Symposium																													
Epilepsy Specialist Symposium																													
Epilepsy Therapies Symposium																													
Hot Topics Symposium																													
ILAE North American Commission Symposium																													
Merritt Putnam Symposium																													
Neurosurgery Symposium																													
Pediatric State of the Art Symposium																													
Presidential Symposium																													
Scientific Symposium																													
Spanish Symposium																													
Translational Research Symposium																													
<b>Industry Satellite Symposia</b>																													

# Meeting at-a-Glance



Sunday, December 3								Monday, December 4								Tuesday, December 5																		
8	9	10	11	12	1	2	3	4	5	6	7	8	7	8	9	10	11	12	1	2	3	4	5	6	7	8	7	8	9	10	11	12	1	2



# Schedule at-a-Glance

## THURSDAY, NOVEMBER 30

5:00 – 7:00 PM

### Registration Open | Badge Pick-up

Convention Center, West C Lobby, Level 2

## FRIDAY, DECEMBER 1

7:00 AM – 6:00 PM

### Registration Open | Badge Pick-up

Convention Center, West C Lobby, Level 2

8:00 AM – 5:30 PM

### Resident EEG Course (Invitation Only)

Convention Center (West Concourse)

8:00 AM – 5:30 PM

### Resident Epilepsy Surgery Course (Invitation Only)

Convention Center (West Concourse)

8:30 – 9:45 AM

### Professional Development | Career Skills: Career Strategic Planning – How to Map Out Your Career

Convention Center, WF2, Tangerine Ballroom, Level 2

8:30 – 11:30 AM

### Epilepsy Specialist Symposium | The Frontal Lobe: Bermuda's Triangle

Convention Center, W415 A/B, Valencia, Level 4

 Digital Select  CME & CE

9:00 – 11:30 AM

### ILAE North American Commission Symposium | Bridging Epilepsy Care Disparities

Convention Center, W415 C/D, Valencia, Level 4

 Digital Select  CME & CE

9:00 AM – 12:00 PM

### AES-CNF Symposium | Dilemmas in Genetic Testing: Ending the Diagnostic Odyssey in Epilepsy

Convention Center, WF1, Tangerine Ballroom, Level 2

 Digital Select  CME & CE

9:00 AM – 4:00 PM

### Other Programming | 36th Annual Advances in the Management of Epilepsy and the Epilepsy Clinic

Hyatt Regency, Plaza International Ballroom I, Convention Level

10:00 – 11:15 AM

### Professional Development | Career Pathways: Clinical Care Emphasis Panel

Convention Center, WF4, Tangerine Ballroom, Level 2

10:00 – 11:15 AM

### Professional Development | Career Pathways: Interprofessional Panel

Convention Center, WF3, Tangerine Ballroom, Level 2

10:00 – 11:15 AM

### Professional Development | Career Pathways: Research Emphasis Panel

Convention Center, WF2, Tangerine Ballroom, Level 2

11:30 AM – 12:45 PM

### Professional Development | Career Skills: Finding the Right Job and Tips for the Interview Process

Convention Center, WF4, Tangerine Ballroom, Level 2

12:30 – 3:00 PM

### Advanced Practice Providers (APPs) Symposium | My Chemical Romance: Regulatory Systems Affecting Quality of Life in People with Epilepsy

Convention Center, W415 C/D, Valencia, Level 4

 Digital Select  CME & CE

12:30 – 3:00 PM

### Annual Fundamentals Symposium | Antiseizure Medications: A through Z

Convention Center, W415 A/B, Valencia, Level 4

 Digital Select  CME & CE

1:00 – 3:00 PM

### Special Lecture | Epilepsy Fellowship Program Directors Meeting

Convention Center, W230 C/D, Level 2

 CME

2:30 – 5:00 PM

### Spanish Symposium | Epilepsy Surgery in Resource-limited Settings

Convention Center, W230 A/B, Level 2

 CME & CE

3:00 – 4:15 PM

### Professional Development | Career Pathways: Non-Academic/Alternative Careers Panel

Convention Center, WF4, Tangerine Ballroom, Level 2

3:30 – 5:00 PM

### SIG | Dietary Therapies for Epilepsy: Looking to the Future – Enhancements and Personalization

Convention Center, W311 A, Level 3

3:30 – 5:00 PM

### SIG | Ictal Semiology: Localization of Seizure Onset and Propagation Networks

Convention Center, W415 C/D, Valencia, Level 4

 Digital Select  CME & CE



# Schedule at-a-Glance

3:30–5:00 PM

## SIG | Neonatal Seizures: Seizures in Neonates – Advances in Identification and Management

Convention Center, WF3, Tangerine Ballroom, Level 2



3:30–5:00 PM

## SIG | Neuroendocrinology: The Influence of Sex Hormones on Neuronal Excitability from Mice to Humans

Convention Center, W311 F–H, Level 3



3:30–5:00 PM

## SIG | Temporal Lobe Club: Temporal Lobe Epilepsy Across the Lifespan

Convention Center, WF1, Tangerine Ballroom, Level 2



4:00–5:30 PM

## Special Lecture | 21st Judith Hoyer Lecture in Epilepsy: Cognitive Comorbidities in Epilepsy: Mechanisms and Potential Therapies

Convention Center, W415 A/B, Valencia, Level 4

*Special Presentations: Distinguished Service Award and Extraordinary Contributions to the Field of Epilepsy Award*



6:00–7:30 PM

## Basic Science Skills Workshop | Behavioral Analysis and Comorbidities

Convention Center, W230 A/B, Level 2

6:00–7:30 PM

## Basic Science Skills Workshop | Metabolism

Convention Center, W230 C/D, Level 2

6:00–7:30 PM

## SIG | Pregnancy Registries: Updates, Outcomes, and Future Directions

Convention Center, W312 A–C, Level 3



6:00–7:30 PM

## SIG | Seizure and Cerebrovascular Disease: Seizure After Stroke: Impact of Antiseizure Medication Prophylaxis and Treatment

Convention Center, W311 B–D, Level 3



6:00–7:30 PM

## SIG | Sleep in Epilepsy: Broken Sleep in Epileptic Encephalopathy – Challenges for Patients and Caregivers

Convention Center, W311 F–H, Level 3



6:00–7:30 PM

## SIG | Stereoelectroencephalography (sEEG): The sEEG Methodology Applied to Pre-Frontal Epilepsies

Convention Center, WF1, Tangerine Ballroom, Level 2



6:00–7:30 PM

## SIG | Tuberous Sclerosis Complex (TSC): Epilepsy Surgery for Everyone with Tuberous Sclerosis Complex?

Convention Center, W311 A, Level 3



6:00–9:00 PM

*Industry-supported*

## Industry CME Satellite Symposium | Seizure Action Plans and Rescue Medications in Adults with Epilepsy: Connecting the Dots from Science to Patient Care

Hyatt Regency Orlando, Plaza Ballroom F, Convention Level



## Industry CME Satellite Symposium | Beyond Seizures: The Evolving Standard of Care in Developmental and Epileptic Encephalopathies

Hyatt Regency Orlando, Plaza Ballroom G, Convention Level



## Industry Non-CME Satellite Symposium | Accelerating Diagnosis and Collaboration with HCPs to Improve Quality of Care

Hyatt Regency Orlando, Plaza Ballroom H, Convention Level

## SATURDAY, DECEMBER 2

6:30 AM–5:00 PM

## Registration Open | Badge Pick-up

Convention Center, West C Lobby, Level 2

7:00–8:30 AM

## Professional Development | Career Skills: Early Career Grants–Insights into Study Section and Next Steps

Convention Center, WF4, Tangerine Ballroom, Level 2

7:00–8:30 AM

## SIG | EEG: Should Epileptiform Spikes be Treated in Patients without Seizures?

Convention Center, W230 C/D, Level 2

# Schedule at-a-Glance

7:00–8:30 AM

## SIG | Pediatric Epilepsy Case Discussions: Difficult Discussions in the Pediatric Epilepsy Clinic

Convention Center, WF3, Tangerine Ballroom, Level 2

 CME & CE

7:00–8:30 AM

## SIG | Professional Wellness in Epilepsy Care: Of Hearth and Home: Professional Wellness After Hours

Convention Center, W313, Level 3

7:00–8:30 AM

## SIG | Psychogenic Non-Epileptic Seizures (PNES): Cognitive Impairment in PNES: From Mechanisms to Therapeutic Approaches

Convention Center, WF1, Tangerine Ballroom, Level 2

 Digital Select  CME & CE

7:00–8:30 AM

## SIG | SUDEP: Sudden Unexpected Death in Epilepsy (SUDEP) from the Top Down

Convention Center, W311 F–H, Level 3

 CME

7:35 AM–4:15 PM

## Resident EEG Course (Invitation Only)

Convention Center, W224 A, Level 2

8:00 AM–4:15 PM

## Resident Epilepsy Surgery Course (Invitation Only)

Convention Center (West Concourse)

8:00 AM–6:00 PM

## Skills Workshop | Epilepsy Surgery Workshop: Techniques and Clinical Scenarios

Convention Center, W331 A, Level 3


 Additional Fee

8:45–11:45 AM

## Presidential Symposium | At the Cutting Edge: Epilepsy Therapies in 2023 and Beyond

Convention Center, W415 A/B, Valencia, Level 4

*Special Presentations: ILAE President's Update, Fritz E. Dreifuss Award*

 Digital Select  CME & CE

12:00–6:00 PM

## Exhibit Hall

Convention Center, West Hall C, Level 2

12:00–6:00 PM

## Poster Session 1

12:15–2:00 PM | Author Present

Convention Center, West Hall C, Level 2

2:30–5:00 PM

## Hot Topics Symposium | Health Equity in Vulnerable Populations

Convention Center, W415 A/B, Valencia, Level 4

*Special Presentation: Founders Award*

 Digital Select  CME & CE

2:30–5:00 PM

## Scientific Symposium | New Insights on Epileptogenesis and Therapeutic Discovery from Encephalitis-induced Epilepsy Models

Convention Center, W415 C/D, Valencia, Level 4

 Digital Select  CME & CE

2:45–5:00 PM

## Platform A | Basic Mechanisms

Convention Center, W311 B–D, Level 3

## Platform B | Neurophysiology

Convention Center, W311 F–H, Level 3

## Platform C | Clinical Research

Convention Center, W312 A–C, Level 3

5:00 PM

## Passport for Prizes Drawing

Exhibit Hall, Catalyst Booth #1023

5:30–7:00 PM

## Investigators Workshop (IW) | How Targeting Adult Hippocampal Neurogenesis Can Reduce Seizures

Convention Center, W230 C/D, Level 2

5:30–7:00 PM

## Investigators Workshop (IW) | Mapping Brain Networks in Epilepsy: To Stimulation Targets – and Back Again

Convention Center, WF4, Tangerine Ballroom, Level 2

5:30–7:00 PM

## Investigators Workshop (IW) | Precision Medicine in Focal Epilepsies: From Novel Pathways to New Therapies

Convention Center, W230, A/B, Level 2

5:30–7:00 PM

## Investigators Workshop (IW) | When Epilepsy Treatments Fail: Palliative and Rehabilitative Approaches

Convention Center, WF3, Tangerine Ballroom, Level 2

5:30–7:00 PM

## SIG | Critical Care: Advances in EEG and Multimodal Neuro-monitoring for Seizures in the ICU

Convention Center, W415 C/D, Valencia, Level 4

 Digital Select  CME & CE

5:30–7:00 PM

## SIG | Epilepsy Surgery: Homunculus Revisited – Managing Central Lobe Epilepsies

Convention Center, W311 F–H, Level 3

# Schedule at-a-Glance

5:30 – 7:00 PM

**SIG | Practice Management: Optimizing Your Practice, Getting the Time and Resources You Deserve**

Convention Center, W311 A, Level 3

5:30 – 7:00 PM

**SIG | Women's Issues in Epilepsy: Controversies in Caring for Women with Epilepsy**

Convention Center, WF1, Tangerine Ballroom, Level 2

 Digital Select  CME & CE

5:30 – 8:00 PM

**Special Lecture | Epilepsy Research Benchmarks Dialogue: Emerging Science and Next Steps in Research to Prevent Epilepsy and its Progression**

Convention Center, WF2, Tangerine Ballroom, Level 2

6:00 – 9:00 PM

*Industry-supported*

**Industry Non-CME Satellite Symposium | The 'Window of Opportunity': Recognizing the Importance of Rapid and Early Seizure Termination**

Hyatt Regency Orlando, Plaza Ballroom F, Convention Level

**Industry Non-CME Satellite Symposium | The Clinical and Personal Value of a Genetic Diagnosis for Epilepsy: Patient and Caregiver Perspectives**

Hyatt Regency Orlando, Plaza Ballroom G, Convention Level

**Industry Non-CME Satellite Symposium | Impact of Continued Seizures and Strategies for Seizure Reduction/Freedom**

Hyatt Regency Orlando, Plaza Ballroom H, Convention Level

**Industry Non-CME Satellite Symposium | Going Beyond: Examining the Impact of Non-seizure Symptoms in DS and LGS**

Hyatt Regency Orlando, Plaza Ballroom I, Convention Level

7:00 – 10:00 PM

**12th Annual AES Wine Tasting and Silent Auction**

Convention Center (West Concourse) Sunburst Room (W340A), Level 3

## SUNDAY, DECEMBER 3

7:00 AM – 5:00 PM

**Registration Open | Badge Pick-up**

Convention Center, West C Lobby, Level 2

7:45 – 8:15 AM

**AES Annual Business Meeting**

Hyatt Regency, Orlando Ballroom, Convention Level

*Open to AES Members only.*

8:00 – 11:00 AM

*Industry-supported*

**Scientific Exhibit | Advances in Rare Disease Research: Focus on Rett Syndromes**

Convention Center, Level 3, W315A

**Scientific Exhibit | Behind the Seizure Program Scientific Exhibit 2023: New Advances in Genetic Epilepsy Diagnosis and State-of-the-Art Research**

Convention Center, Level 3, W315B

8:45 – 10:15 AM

**Investigators Workshop (IW) | Artificial Intelligence in Epilepsy: Real-world Clinical Applications**

Convention Center, WF3, Tangerine Ballroom, Level 2

8:45 – 10:15 AM

**Investigators Workshop (IW) | Epilepsy and the Aging Brain**

Convention Center, W230 A/B, Level 2

8:45 – 10:15 AM

**Investigators Workshop (IW) | Novel Therapeutic Strategies for Developmental Epilepsies and Comorbidities**

Convention Center, WF1, Tangerine Ballroom, Level 2

 Digital Select

8:45 – 10:15 AM

**Investigators Workshop (IW) | Recent Advances and Future Directions in NORSE/FIRES Research**

Convention Center, W230 C/D, Level 2

8:45 AM – 5:30 PM

**Annual Course | It's About Time: Timing in Epilepsy Evaluation and Treatment**

Convention Center, W415 A/B, Valencia, Level 4

 Digital Select  CME & CE

9:00 – 11:30 AM

**Neurosurgery Symposium | Surgical Controversies in Temporal Lobe Epilepsies**

Convention Center, W415 C/D, Valencia, Level 4

 Digital Select  CME & CE

10:00 AM – 4:00 PM

**Exhibit Hall**

Convention Center, West Hall C, Level 2

10:00 AM – 4:00 PM

**Poster Session 2 12:00 - 2:00 PM | Author Present**

Convention Center, West Hall C, Level 2

10:30 AM – 12:00 PM

**Investigators Workshop (IW) | Adult Genetic Epilepsy Patients Management**

Convention Center, W230 A/B, Level 2

# Schedule at-a-Glance

10:30 AM – 12:00 PM

## Investigators Workshop (IW) | Challenges and Opportunities Harmonizing Experimental and Clinical TBI Data

Convention Center, WF3,  
Tangerine Ballroom, Level 2

10:30 AM – 12:00 PM

## Investigators Workshop (IW) | Loss of Consciousness During Seizures: Mechanisms and Avenues for Interventions

Convention Center, WF1,  
Tangerine Ballroom, Level 2

 Digital Select

10:30 AM – 12:00 PM

## Investigators Workshop (IW) | Value of a Shared Framework for Copy Number Variants and Structural Variants

Convention Center, W230 C/D, Level 2

12:00 – 1:30 PM

## Poster Session | Basic Science Poster Highlights and Lunch

Convention Center, WF4,  
Tangerine Ballroom, Level 2

1:30 – 3:00 PM

## Investigators Workshop (IW) | Addressing Social Determinants of Health to Promote Equitable Epilepsy Care

Convention Center, WF3,  
Tangerine Ballroom, Level 2

1:30 – 3:00 PM

## Investigators Workshop (IW) | Leveraging Thalamocortical Interactions to Improve Patient Treatment

Convention Center, WF1,  
Tangerine Ballroom, Level 2

 Digital Select

1:30 – 3:00 PM

## Investigators Workshop (IW) | Protein Trafficking and Proteostasis Regulators in Genetic Epilepsy

Convention Center, W230 A/B, Level 2

1:30 – 3:00 PM

## Investigators Workshop (IW) | Seizures in Alzheimer's Disease can Reveal New Opportunities for Epilepsy

Convention Center, W230 C/D, Level 2

2:00 – 5:00 PM

*Industry-supported*

## Scientific Exhibit | Diacomit® (stiripentol): A US Perspective on Mechanism of Action, Efficacy, and Safety Updates in the Treatment of Dravet Syndrome

Convention Center, Level 3, W315A

## Scientific Exhibit | XEN1101, a Novel Potassium Channel Opener: Clinical Program Updates

Convention Center, Level 3, W315B

## Scientific Exhibit | Beyond the Typical Clinical Development Program: Epidiolex® (Cannabidiol) Research Updates and Future Directions

Convention Center, Level 3, W314

2:30 – 5:00 PM

## Best Practices in Clinical Epilepsy Symposium | Inclusive Care in Epilepsy: Is a Single Provider Doing All Roles?

Convention Center, W415 C/D,  
Valencia, Level 4

*Special Presentation: Rebecca Goldberg Kaufman AES Clinical Award in Ethical Neuropsychiatry*

 Digital Select  CME & CE

3:15 – 4:45 PM

## Investigators Workshop (IW) | Minimally Invasive Epilepsy Surgery: Molecular Diagnosis and Therapies

Convention Center, WF3,  
Tangerine Ballroom, Level 2

3:15 – 4:45 PM

## Investigators Workshop (IW) | Recent Advances in Gene Therapies for the Epilepsies: A Preclinical Perspective

Convention Center, W230 A/B, Level 2

3:15 – 4:45 PM

## Investigators Workshop (IW) | Source Imaging Along Time and Space: Technical Challenges and Clinical Yields

Convention Center, WF2,  
Tangerine Ballroom, Level 2

3:15 – 4:45 PM

## Investigators Workshop (IW) | Translational Studies in Molecularly-based Therapies for Genetic Epilepsies

Convention Center, W230 C/D, Level 2

3:30 PM

## Passport for Prizes Drawing

Exhibit Hall, Catalyst Booth #1023

5:00 – 7:30 PM

## Special Lecture | The Multidisciplinary Patient-centered Team in Treating People with Epilepsy

Convention Center, WF1,  
Tangerine Ballroom, Level 2

 Digital Select  CME & CE

5:15 – 6:15 PM

## Poster Session | Broadening Representation Inclusion and Diversity by Growing Equity (BRIDGE)

Convention Center, WF4,  
Tangerine Ballroom, Level 2

6:00 – 7:30 PM

## SIG | Epidemiology: Epidemiology in Action: How Our Findings Change Epilepsy Clinical Practice

Convention Center, W313, Level 3

# Schedule at-a-Glance

6:00 – 7:30 PM

## SIG | Global Health: The Global Approach to Tele-care Delivery – Bridging the Epilepsy Gap

Convention Center, W311 B - D, Level 3



6:00 – 7:30 PM

## SIG | Health Disparities: Creating a Roadmap for Action

Convention Center, W311 F - H, Level 3

6:00 – 7:30 PM

## SIG | Neuroimaging: Clinical and Mechanistic Neuroimaging Assessment of Drug-resistant Epilepsies

Convention Center, W230 C/D, Level 2

6:00 – 7:30 PM

## SIG | Psychosocial Comorbidities: Strengthening Multisector Engagement to Address Social Challenges in Epilepsy

Convention Center, W312 A-C, Level 3



6:00 – 7:30 PM

## SIG | Quality and Safety: Optimizing Interventions for Status: Bridging Gaps Between Protocol and Practice

Convention Center, W311 A, Level 3



6:00 – 9:00 PM

*Industry-supported*

## Industry CME Satellite Symposium | Comprehensive Care in Developmental and Epileptic Encephalopathies: Expert and Caregiver Perspectives

Hyatt Regency Orlando, Plaza Ballroom F, Convention Level



## Industry CME Satellite Symposium | The Delicate Balance of Brain Cholesterol: Implications for Developmental and Epileptic Encephalopathies (DEEs)

Hyatt Regency Orlando, Plaza Ballroom G, Convention Level



## Industry CME Satellite Symposium | Expect the Unexpected: Optimizing Diagnostic and Treatment Approaches in Dravet

Hyatt Regency Orlando, Plaza Ballroom H, Convention Level



## MONDAY, DECEMBER 4

7:00 AM – 4:00 PM

## Registration Open | Badge Pick-up

Convention Center, West C Lobby, Level 2

7:00 – 8:30 AM

## National Association of Epilepsy Centers (NAEC) Annual Meeting

Location available in the AES 2023 mobile app.

*This meeting is open to NAEC members only.*

7:00 – 8:30 AM

## SIG | Clinical Epilepsy for the Advanced Practice Provider: Integrating APPs in Epilepsy Surgery Evaluation

Convention Center, W311 B-D, Level 3



7:00 – 8:30 AM

## SIG | Data Science in Epilepsy: TinyML: Platforms and Embedded Systems for Portable Data Science in Epilepsy

Convention Center, W311 F-H, Level 3

7:00 – 8:30 AM

## SIG | Developmental and Epileptic Encephalopathies (DEE): Opportunities and Discoveries from Bench to Bedside

Convention Center, WF1, Tangerine Ballroom, Level 2



7:00 – 8:30 AM

## SIG | Epilepsy and Aging: Unique Aspects of Epilepsy in Aging

Convention Center, W313, Level 3



7:00 – 8:30 AM

## SIG | Neuropsychology: Mapping Cognition in Epilepsy: From the Lab to the Clinic

Convention Center, W311 A, Level 3



8:00 AM – 2:00 PM

## Poster Session 3 12:00 – 1:45 PM | Author Present

Convention Center, West Hall C, Level 2 (Enter through West Hall D1, Level 2 between 8:00 – 10:00 AM)

*This poster session closes promptly at 2:00 PM.*

# Schedule at-a-Glance

8:00 – 11:00 AM *Industry-supported*

**Scientific Exhibit | Advancing the Understanding of VNS Therapy™: Insights from Global Real-World Evidence**

Convention Center, Level 3, W315A

**Scientific Exhibit | Advancing Ganaxolone Research in Rare Seizure Disorders: Updates from Marinus Pharmaceuticals**

Convention Center, Level 3, W315B

**Scientific Exhibit | UCB: Innovative Science, Transforming Care for Epilepsy and Rare Epilepsy Syndromes**

Convention Center, Level 3, W314

9:00 – 10:30 AM

**Special Lecture | AES-NAEC Joint Coding Session: Coding and Reimbursement Policies of Interest to Epileptologists and Epilepsy Centers**

Convention Center, WF2, Tangerine Ballroom, Level 2

 CME

9:00 – 10:30 AM

**Special Lecture | ILAE-IBE Actioning the Action Plan: Interactive Discussion on Driving Forward the 2022-2031 Intersectoral Global Action Plan on Epilepsy and Other Neurological Disorders (IGAP)**

Convention Center, W230 A/B, Level 2

9:00 – 11:30 AM

**Epilepsy Therapies Symposium | Do We Really “Outgrow” Seizures?**

Convention Center, W415 A/B, Valencia, Level 4

*Special Presentation: J. Kiffin Penry Award for Excellence in Epilepsy Care*

 Digital Select  CME & CE

9:00 – 11:30 AM

**Translational Research Symposium | Data Sharing for Improving and Accelerating Translational Outcomes**

Convention Center, W415 C/D, Valencia, Level 4

 Digital Select

10:00 AM – 2:00 PM

**Exhibit Hall**

Convention Center, West Hall C, Level 2

1:30 PM

**Passport for Prizes Drawing**

Exhibit Hall, Catalyst Booth #1023

2:00 – 5:00 PM *Industry-supported*

**Scientific Exhibit | An Update on the Development of LP352: A Novel Investigational 5-HT2C Superagonist for the Treatment of Rare Seizure Disorders**

Convention Center, Level 3, W315A

**Scientific Exhibit | TAK-935 (soticlestat) and the Journey of the Development of a Novel Mechanism of Action, from Preclinical Models to Clinical Trials in Dravet Syndrome and Lennox-Gastaut Syndrome**

Convention Center, Level 3, W315B

2:15 – 3:45 PM

**Special Lecture | Lombroso Lecture: The Path to Personalized Treatments for Epilepsies – Translation, Biomarkers and the Role of the Community**

Convention Center, W415 A/B, Valencia, Level 4

*Special Presentations: Basic Science and Clinical Science Research Awards*

 Digital Select

3:15 – 5:30 PM

**Platform D | Epilepsy Therapies**

Convention Center, W311 B–D, Level 3

**Platform E | Surgery**

Convention Center, W311 F–H, Level 3

**Platform F | Computational Approaches**

Convention Center, W312 A–C, Level 3

3:15 – 5:30 PM

**Pediatric Epilepsy Highlights**

Convention Center, WF4, Tangerine Ballroom, Level 2

4:00 – 6:00 PM

**Special Lecture | Dialogues to Transform Epilepsy: Cutting-edge Advances in Neuroscience to Improve Epilepsy Treatment**

Convention Center, W415 C/D, Valencia, Level 4

 Digital Select

4:00 – 6:30 PM

**Special Lecture | Clinical Practice Guidelines: Why, What, How**

Convention Center, WF1, Tangerine Ballroom, Level 2

 Digital Select  CME & CE

6:00 – 7:30 PM

**SIG | Basic Mechanisms and Neuroscience of Epilepsy: Human iPSCs-based Neuron and Brain Organoid Models to Dissect Genetic Epilepsy**

Convention Center, W311 F–H, Level 3

6:00 – 7:30 PM

**SIG | Children’s Hour: Pediatric Epilepsy Surgery: ‘Go Big or Go Home’ vs. Staged Approaches**

Convention Center, W230 A/B, Level 2

 CME

# Schedule at-a-Glance

6:00 – 7:30 PM

**SIG | Cognitive and Behavioral Treatment for Epilepsy: Anxiety in Epilepsy – Evidence-based Practice for the Epilepsy Clinic**

Convention Center, W313, Level 3

 **CME & CE**

6:00 – 7:30 PM

**SIG | Neuropharmacology: Medication Misadventures – Management of Antiseizure Medication Adverse Effects**

Convention Center, W230 C/D, Level 2

6:00 – 7:30 PM

**SIG | Status Epilepticus: Controversies in Status Epilepticus: Treat Aggressively or Not?**

Convention Center, WF3, Tangerine Ballroom, Level 2

## TUESDAY, DECEMBER 5

7:00 AM – 12:30 PM

**Registration Open | Badge Pick-up**

Convention Center, West C Lobby, Level 2

7:00 – 8:30 AM

**SIG | Engineering and Neurostimulation: Advances in the Surgical Treatment of Children with Refractory Epilepsy**

Convention Center, W230 A/B, Level 2

7:00 – 8:30 AM

**SIG | Epilepsy Education: Epilepsy Education Throughout the Training Pipeline**

Convention Center, W313, Level 3

7:00 – 8:30 AM

**SIG | Genetics: Clinical Genetics in 2024 – What You Need to Know**

Convention Center, WF1, Tangerine Ballroom, Level 2

 **Digital Select**  **CME & CE**

7:00 – 8:30 AM

**SIG | Seizures in Autoimmune Encephalitis: Expanding the Clinical Spectrum and Recent Advances in Diagnosis and Treatment**

Convention Center, W230 C/D, Level 2

 **CME & CE**

7:00 – 8:30 AM

**SIG | Tumor-related Epilepsy (TRE): Invasive Monitoring in Tumor-related Epilepsy: Why, When, and How**

Convention Center, WF3, Tangerine Ballroom, Level 2

 **CME & CE**

8:45 – 11:15 AM

**Merritt-Putnam Symposium | Artificial Intelligence: Fundamentals and Breakthrough Applications in Epilepsy**

Convention Center, W415 C/D, Valencia, Level 4

 **Digital Select**  **CME & CE**

8:45 – 11:15 AM

**Pediatric State of the Art Symposium | Neonatal Seizures in 2023: New Evidence We've Been Waiting For**

Convention Center, W415 A/B, Valencia, Level 4

 **Digital Select**  **CME & CE**

11:00 AM – 12:30 PM  
12:45 – 2:15 PM

**Clinical Skills Workshop | Genetics Testing in Epilepsy Patients**

Convention Center, W311 A/B, Level 3

 **Additional Fee**

*Pre-registration required*

11:00 AM – 12:30 PM  
12:45 – 2:15 PM

**Clinical Skills Workshop | Intracranial Electrode Studies**

Convention Center, W311 C/D, Level 3

 **Additional Fee**

*Pre-registration required*

11:00 AM – 12:30 PM  
12:45 – 2:15 PM

**Clinical Skills Workshop | Neurostimulation in Epilepsy**

Convention Center, W314, Level 3

 **Additional Fee**

*Pre-registration required*

11:00 AM – 1:00 PM

**Clinical Skills Workshop | Misadventures in EEG**

Convention Center, W311 E/F, Level 3

 **Additional Fee**

*Pre-registration required*

11:00 AM – 1:00 PM

**Clinical Skills Workshop | Neuroimaging Case Review: Conventional and Computer-assisted Analysis**

Convention Center, W311 G/H, Level 3

 **Additional Fee**

*Pre-registration required*

11:00 AM – 1:00 PM

**Clinical Skills Workshop | Pearls of Video EEG**

Convention Center, W312 B/C, Level 3

 **Additional Fee**

*Pre-registration required*

# Accredited Continuing Education

Session Name	In-person CME	Digital CME	Live Non-CME	Digital Non-CME	In-person Nursing Contact Hours	Digital Nursing Contact Hours	In-person Pharmacy Contact Hours	Digital Pharmacy Contact Hours
Advanced Practice Provider Symposium   My Chemical Romance: Regulatory Systems Affecting Quality of Life in People with Epilepsy	2.5	2.5			2.5	2.5		
AES-CNF Symposium   Dilemmas in Genetic Testing: Ending the Diagnostic Odyssey in Epilepsy	3	3			3	3	3	3
Annual Course   It's About <i>Time</i> : Timing in Epilepsy Evaluation and Treatment	6	6			6	6	6	6
Annual Fundamentals Symposium   Antiseizure Medications: A through Z	2.5	2.5			2.5	2.5	2.5	2.5
Basic Science Skills Workshop   Behavioral Analysis and Comorbidities			1.5					
Basic Science Skills Workshop   Metabolism			1.5					
Best Practices in Clinical Epilepsy Symposium   Inclusive Care in Epilepsy: Is a Single Provider Doing All Roles?	2.5	2.5			2.5	2.5	2.5	2.5
Clinical Skills Workshop   Genetics Testing			1.5					
Clinical Skills Workshop   Intracranial Electrode Studies			1.5					
Clinical Skills Workshop   Misadventures in EEG			2					
Clinical Skills Workshop   Neuroimaging Case Study			2					
Clinical Skills Workshop   Neurostimulation in Epilepsy			1.5					
Clinical Skills Workshop   Pearls of Video EEG			2					
Epilepsy Specialist Symposium   The Frontal Lobe: Bermuda's Triangle	3	3			3	3		
Epilepsy Therapies Symposium   Do We Really "Outgrow" Seizures?	2.5	2.5			2.5	2.5	2.5	2.5
Hot Topics Symposium   Health Equity in Vulnerable Populations	2.5	2.5			2.5	2.5	2.5	2.5
ILAE North American Commission Symposium   Bridging Epilepsy Care Disparities	2.5	2.5			2.5	2.5	2.5	2.5
IW   Addressing Social Determinants of Health to Promote Equitable Epilepsy Care			1.5					
IW   Adult Genetic Epilepsy Patients Management			1.5					
IW   Artificial Intelligence in Epilepsy: Real-world Clinical Applications			1.5					
IW   Challenges and Opportunities Harmonizing Experimental and Clinical TBI Data			1.5					
IW   Epilepsy and the Aging Brain			1.5					
IW   How Targeting Adult Hippocampal Neurogenesis can Reduce Seizures			1.5					
IW   Leveraging Thalamocortical Interactions to Improve Patient Treatment			1.5	1.5				
IW   Loss of Consciousness During Seizures: Mechanisms and Avenues for Interventions			1.5	1.5				
IW   Mapping Brain Networks in Epilepsy: To Stimulation Targets and Back Again			1.5					



# Accredited Continuing Education

Session Name	In-person CME	Digital CME	Live Non-CME	Digital Non-CME	In-person Nursing Contact Hours	Digital Nursing Contact Hours	In-person Pharmacy Contact Hours	Digital Pharmacy Contact Hours
IW   Minimally Invasive Epilepsy Surgery: Molecular Diagnosis and Therapies			1.5					
IW   Novel Therapeutic Strategies for Developmental Epilepsies and Comorbidities			1.5	1.5				
IW   Precision Medicine in Focal Epilepsies: From Novel Pathways to New Therapies			1.5					
IW   Protein Trafficking and Proteostasis Regulators in Genetic Epilepsy			1.5					
IW   Recent Advances and Future Directions in NORSE/FIRES Research			1.5					
IW   Recent Advances Gene Therapies for the Epilepsies: A Preclinical Perspective			1.5					
IW   Seizures in Alzheimer's Disease can Reveal New Opportunities for Epilepsy			1.5					
IW   Source Imaging Along Time and Space: Technical Challenges and Clinical Yields			1.5					
IW   Translational Studies in Molecularly-based Therapies for Genetic Epilepsies			1.5					
IW   Value of a Shared Framework for Copy Number Variants and Structural Variants Neuropeptides in Epilepsy			1.5					
IW   When Epilepsy Treatments Fail: Palliative and Rehabilitative Approaches			1.5					
Merritt-Putnam Symposium   Artificial Intelligence Fundamentals and Breakthrough Applications in Epilepsy	2.5	2.5			2.5	2.5	2.5	2.5
Neurosurgery Symposium   Surgical Controversies in Temporal Lobe Epilepsies	2.5	2.5			2.5	2.5		
Pediatric Epilepsy Highlights			2.25					
Pediatric State of the Art Symposium   Neonatal Seizures in 2023: New Evidence We've Been Waiting For	2.5	2.5			2.5	2.5	2.5	2.5
Platform A   Basic Mechanisms			2.25					
Platform B   Neurophysiology			2.25					
Platform C   Clinical Research			2.25					
Platform D   Epilepsy Therapies			2.25					
Platform E   Surgery			2.25					
Platform F   Computational Approaches			2.25					
Presidential Symposium   At the Cutting Edge: Epilepsy Therapies in 2023 and Beyond	2.75	2.75			2.75	2.75	2.75	2.75
Professional Development   Career Pathways: Clinical Care Emphasis Panel			1.25					
Professional Development   Career Pathways: Interprofessional Panel			1.25					
Professional Development   Career Pathways: Non-Academic/Alternative Careers			1.25					
Professional Development   Career Pathways: Research Emphasis Panel			1.25					

# Accredited Continuing Education

Session Name	In-person CME	Digital CME	Live Non-CME	Digital Non-CME	In-person Nursing Contact Hours	Digital Nursing Contact Hours	In-person Pharmacy Contact Hours	Digital Pharmacy Contact Hours
Professional Development   Career Skills: Career Strategic Planning–How to Map Out Your Career			1.25					
Professional Development   Career Skills: Early Career Grants–Insights into Study Section and Next Steps			1.5					
Professional Development   Career Skills: Finding the Right Job and Tips for the Interview Process			1.25					
Scientific Symposium   New Insights on Epileptogenesis and Therapeutic Discovery from Encephalitis-induced Epilepsy Models	2.5	2.5			2.5	2.5		
SIG   Basic Mechanisms and Neuroscience of Epilepsy: Human iPSCs-based Neuron and Brain Organoid Models to Dissect Genetic Epilepsy			1.5					
SIG   Children’s Hour: Pediatric Epilepsy Surgery: ‘Go Big or Go Home’ vs. Staged Approaches	1.5							
SIG   Clinical Epilepsy for the Advanced Practice Provider: Integrating Advanced Practice Providers in Epilepsy Surgery Evaluation	1.5				1.5			
SIG   Cognitive and Behavioral Treatment for Epilepsy: Anxiety in Epilepsy: Evidence-based Practice for the Epilepsy Clinic	1.5				1.5			
SIG   Critical Care: Advances in EEG and Multimodal Neuro-monitoring for Seizures in the ICU	1.5	1.5			1.5	1.5		
SIG   Data Science in Epilepsy: TinyML: Platforms and Embedded Systems for Portable Data Science in Epilepsy			1.5					
SIG   Developmental and Epileptic Encephalopathies (DEE): Opportunities and Discoveries from Bench to Bedside	1.5	1.5			1.5	1.5	1.5	1.5
SIG   Dietary Therapies for Epilepsy: Looking to the Future: Enhancements and Personalization			1.5					
SIG   EEG: Should Epileptiform Spikes be Treated in Patients without Seizures?			1.5					
SIG   Engineering and Neurostimulation: Advances in the Surgical Treatment of Children with Refractory Epilepsy			1.5					
SIG   Epidemiology: Epidemiology in Action: How Our Findings Change Epilepsy Clinical Practice			1.5					
SIG   Epilepsy and Aging: Unique Aspects of Epilepsy in Aging	1.5				1.5		1.5	
SIG   Epilepsy Education: Epilepsy Education Throughout the Training Pipeline			1.5					
SIG   Epilepsy Surgery: Homunculus Revisited: Managing Central Lobe Epilepsies			1.5					
SIG   Genetics: Clinical Genetics in 2024: What You Need to Know!			1.5	1.5				
SIG   Global Health: The Global Approach to Tele-care Delivery: Bridging the Epilepsy Gap	1.5				1.5		1.5	
SIG   Health Disparities: Creating a Roadmap for Action			1.5					
SIG   Ictal Semiology: Localization of Seizure Onset and Propagation Networks	1.5	1.5			1.5	1.5		

## Accredited Continuing Education

Session Name	In-person CME	Digital CME	Live Non-CME	Digital Non-CME	In-person Nursing Contact Hours	Digital Nursing Contact Hours	In-person Pharmacy Contact Hours	Digital Pharmacy Contact Hours
SIG   Neonatal Seizures: Seizures in Neonates: Advances in Identification and Management	1.5				1.5			
SIG   Neuroendocrinology: The Influence of Sex Hormones on Neuronal Excitability from Mice to Humans	1.5				1.5		1.5	
SIG   Neuroimaging: Clinical and Mechanistic Neuroimaging Assessment of Drug-resistant Epilepsies			1.5					
SIG   Neuropsychology: Mapping Cognition in Epilepsy: From the Lab to the Clinic	1.5				1.5			
SIG   Pediatric Epilepsy Case Discussions: Difficult Discussions in the Pediatric Epilepsy Clinic	1.5				1.5			
SIG   Practice Management: Optimizing Your Practice: Getting the Time and Resources You Deserve			1.5					
SIG   Pregnancy Registries: Updates, Outcomes, and Future Directions	1.5				1.5			
SIG   Professional Wellness in Epilepsy Care: Of Hearth and Home: Professional Wellness After Hours			1.5					
SIG   Psychogenic Non-Epileptic Seizures (PNES): Cognitive Impairment in PNES: From Mechanisms to Therapeutic Approaches	1.5	1.5			1.5	1.5		
SIG   Psychosocial Comorbidities: Strengthening Multisector Engagement to Address Social Challenges in Epilepsy	1.5				1.5		1.5	
SIG   Quality and Safety: Optimizing Interventions for Status: Bridging Gaps Between Protocol and Practice	1.5				1.5		1.5	
SIG   Seizure and Cerebrovascular Disease: Seizure After Stroke: Impact of Antiseizure Medication Prophylaxis and Treatment	1.5				1.5		1.5	
SIG   Seizures in Autoimmune Encephalitis: Expanding the Clinical Spectrum and Recent Advances in Diagnosis and Treatment	1.5				1.5		1.5	
SIG   Sleep in Epilepsy: Broken Sleep in Epileptic Encephalopathy: Challenges for Patients and Caregivers	1.5				1.5			
SIG   Status Epilepticus: Controversies in Status Epilepticus: Treat Aggressively or Not?			1.5					
SIG   Stereoelectroencephalography (sEEG): The sEEG Methodology Applied to Pre-frontal Epilepsies	1.5	1.5			1.5	1.5		
SIG   SUDEP: Sudden Unexpected Death in Epilepsy (SUDEP) from the Top Down	1.5							
SIG   Temporal Lobe Club: Temporal Lobe Epilepsy Across the Lifespan	1.5	1.5			1.5	1.5		
SIG   Tuberous Sclerosis Complex (TSC): Epilepsy Surgery for Everyone with Tuberous Sclerosis Complex	1.5				1.5			
SIG   Tumor-Related Epilepsy (TRE): Invasive Monitoring in Tumor-related Epilepsy: Why, When, and How	1.5				1.5			
SIG   Women's Issues in Epilepsy: Controversies in Caring for Women with Epilepsy	1.5	1.5			1.5	1.5	1.5	1.5

## Accredited Continuing Education

Session Name	In-person CME	Digital CME	Live Non-CME	Digital Non-CME	In-person Nursing Contact Hours	Digital Nursing Contact Hours	In-person Pharmacy Contact Hours	Digital Pharmacy Contact Hours
Spanish Symposium   Epilepsy Surgery in Resource-limited Settings	2.5				2.5			
Special Lecture   21st Judith Hoyer Lecture in Epilepsy: Cognitive Comorbidities in Epilepsy—Mechanisms and Potential Therapies	0.75	0.75			0.75	0.75	0.75	0.75
Special Lecture   AES-NAEC Joint Coding Session: Coding and Reimbursement Policies of Interest to Epileptologists and Epilepsy Centers	1.5							
Special Lecture   Clinical Practice Guidelines: Why, What, How	2.5	2.5			2.5	2.5	2.5	2.5
Special Lecture   Dialogues to Transform Epilepsy: Cutting-edge Advances in Neuroscience to Improve Epilepsy Treatment			2	2				
Special Lecture   Epilepsy Fellowship Program Directors Meeting	2							
Special Lecture   Epilepsy Research Benchmarks Dialogue: Emerging Science and Next Steps in Research to Prevent Epilepsy and Its Progression			2.5					
Special Lecture   ILAE-IBE Actioning the Action Plan: Interactive Discussion on Driving Forward the 2022-2031 Intersectoral Global Action Plan on Epilepsy and Other Neurological Disorders (IGAP)			1.5					
Special Lecture   Lombroso Lecture: The Path to Personalized Treatments for Epilepsies—Translation, Biomarkers, and the Role of the Community			1.5	1.5				
Special Lecture   The Multidisciplinary Patient-centered Team in Treating People with Epilepsy	2.5	2.5			2.5	2.5	2.5	2.5
Translational Research Symposium   Data Sharing for Improving and Accelerating Translational Outcomes			2.5	2.5				



**Saturday, December 2, 2023 | 7:00 - 10:00 PM**

Orange County Convention Center  
West Concourse

Sunburst Room (W340A), Level 3

- \$175 per ticket
- \$99 for Student and Trainee registrants

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The *AES Sergievsky Award for Epilepsy Health Equity and Diversity* is designed to recognize and provide career support, including a \$75,000 per year grant for two years, for talented epilepsy professionals from under-represented groups and/or who are researching issues that affect medically underserved individuals with epilepsy or seizures or related aspects of health equity.

Applications are due **Thursday, January 18, 2024**.  
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# AES 2023 Digital Select



AES 2023 Digital Select allows you to enjoy AES learning and science on-demand! Enjoy 68 hours of recorded sessions and up to 56 CME credits. Access to recordings begins Tuesday, December 5 in the AES 2023 mobile app.

Recorded Sessions	
Session Name	Credit Offered?
Epilepsy Specialist Symposium   The Frontal Lobe: Bermuda's Triangle	✔
AES-CNF Symposium   Dilemmas in Genetic Testing: Ending the Diagnostic Odyssey in Epilepsy	✔
ILAE North American Commission Symposium   Bridging Epilepsy Care Disparities	✔
Advanced Practice Provider Symposium   My Chemical Romance: Regulatory Systems Affecting Quality of Life in People with Epilepsy	✔
Annual Fundamentals Symposium   Antiseizure Medications: A through Z	✔
SIG   Ictal Semiology: Localization of Seizure Onset and Propagation Networks	✔
SIG   Temporal Lobe Club: Temporal Lobe Epilepsy Across the Lifespan	✔
Special Lecture   21st Judith Hoyer Lecture in Epilepsy: Cognitive Comorbidities in Epilepsy – Mechanisms and Potential Therapies	✔
SIG   Stereoelectroencephalography (sEEG): The sEEG Methodology Applied to Pre-Frontal Epilepsies	✔
SIG   Psychogenic Non-Epileptic Seizures (PNES): Cognitive Impairment in PNES: From Mechanisms to Therapeutic Approaches	✔
Presidential Symposium   At the Cutting Edge: Epilepsy Therapies in 2023 and Beyond	✔
Hot Topics Symposium   Health Equity in Vulnerable Populations	✔
Scientific Symposium   New Insights on Epileptogenesis and Therapeutic Discovery from Encephalitis-induced Epilepsy Models	✔
SIG   Critical Care: Advances in EEG and Multimodal Neuro-monitoring for Seizures in the ICU	✔
SIG   Women's Issues in Epilepsy: Controversies in Caring for Women with Epilepsy	✔
Annual Course   It's About Time: Timing in Epilepsy Evaluation and Treatment	✔
IW   Novel Therapeutic Strategies for Developmental Epilepsies and Comorbidities	
Neurosurgery Symposium   Surgical Controversies in Temporal Lobe Epilepsies	✔
IW   Loss of Consciousness During Seizures: Mechanisms and Avenues for Interventions	
IW   Leveraging Thalamocortical Interactions to Improve Patient Treatment	
Best Practices in Clinical Epilepsy Symposium   Inclusive Care in Epilepsy: Is a Single Provider Doing All Roles?	✔
Special Lecture   The Multi-disciplinary Patient-Centered Team in Treating People with Epilepsy	✔
SIG   Developmental and Epileptic Encephalopathies (DEE): Opportunities and Discoveries from Bench to Bedside	✔
Epilepsy Therapies Symposium   Do We Really "Outgrow" Seizures?	✔
Translational Research Symposium   Data Sharing for Improving and Accelerating Translational Outcomes	
Special Lecture   Lombroso Lecture: The Path to Personalized Treatments for Epilepsies – Translation, Biomarkers and the Role of the Community	
Special Lecture   Clinical Practice Guidelines: Why, What, How	✔
Special Lecture   Dialogues to Transform Epilepsy: Cutting-edge Advances in Neuroscience to Improve Epilepsy Treatment	
SIG   Genetics: Clinical Genetics in 2024: What You Need to Know!	
Merritt-Putnam Symposium   Artificial intelligence Fundamentals and Breakthrough Applications in Epilepsy	✔
Pediatric State of the Art Symposium   Neonatal Seizures in 2023: New Evidence We've Been Waiting For	✔

12:00 – 1:30 PM

## Basic Science Poster Highlights | Poster Session and Lunch

Convention Center, WF4, Tangerine Ballroom, Level 2

**Moderator:** Chris Dulla, PhD; and  
Esther Krook-Magnuson, PhD

### Program

- 1.003** Intestinal Dysbiosis Alters Seizure Burden and Antiseizure Medicine Activity Profile in the Theiler's Virus Model of Acute Encephalitis | Inga Erickson, BS
- 1.004** The Synergistic Relationship Between Alzheimer's Disease and Recurrent Seizures is Mediated by Dysregulated Gliosis and Reactivation of Immediate-Early Genes | Anna Harutyunyan, PhD
- 1.009** Early Deficits in Dentate Circuit and Behavioral Pattern Separation after Concussive Brain Injury | Andrew Huang, BS
- 1.010** Elevated SUR1-TRPM4 Expression Due to Chronic Seizures Contributes to Epileptogenesis | Mitchell Moyer, BS
- 1.012** Brain-wide Analysis of White Matter Structure and Function in Generalized Epilepsy | Kala Nair, PhD
- 1.016** Cell Type-specific Circuit Mechanisms of Absence Epilepsy | Xiaolong Jiang, PhD
- 1.018** Cerebral Vascular and Blood Brain-barrier Abnormalities in a Mouse Model of Epilepsy and Tuberous Sclerosis Complex | Dongjun Guo, MD, PhD
- 1.019** A Precision Medicine Approach for HCN1 Developmental and Epileptic Encephalopathy | Christopher Reid, PhD
- 1.021** Reduced GABA Uptake and Altered GABAergic Neurotransmission in Slc6a1(S295L) Knock-in Mouse Associated with Epileptic Encephalopathy | Kirill Zavalin, PhD
- 1.023** Exosomes Secreted from Epileptogenic TSC Tubers are Enriched for Proteins Associated with Vesicle-mediated Transport and Altered Electrophysiology | Dylan Ukasik, BS
- 1.031** Cellular and Circuit Mechanism of Epilepsy in Acute Slices from Resected Human Brain Tissue | Tanvi Butola, PhD
- 1.039** Enhancement of Fast-spiking Interneuron Excitability as an Intervention in Early-life Epilepsy | Matthew Rowan, PhD
- 1.048** AAV9-GADv1-Na $\beta$ 1 Administration Prolongs Survival and Restores Excitability of PV+ Interneurons in the Scn1b Null Mouse Model of Developmental and Epileptic Encephalopathy | Yukun Yuan, PhD
- 1.050** Opto- and Chemo-genetic Dissection of Neural Circuitry Involved in Seizure-induced Apnea | Ian Wenker, PhD
- 1.054** Myeloid Differentiation Primary Response Gene 88-mediated Signaling is Critical for Generation of Seizures and Cognitive Impairment in Anti-NMDA Receptor Encephalitis | Olga Taraschenko, MD, PhD
- 1.060** Genetic Mapping Using Collaborative Cross Mice Resource Identifies Novel Candidate Genes of SUDEP Susceptibility | Bin Gu, PhD
- 1.068** Chronic, Spontaneous Hippocampal Seizures Evoke Widespread Alterations in Cerebellar Activity and Network Dynamics in a Mouse Model of Temporal Lobe Epilepsy | Martha Streng, PhD
- 1.105** Spontaneous Epileptiform Discharges in a Genetic Rabbit Model of Kcnc2-mediated Seizures, Long QT Syndrome, and Sudden Death | Veronica Singh, BS
- 1.109** Reduced Epilepsy Morbidity and Mortality upon Gene Replacement Therapy in Succinic Semialdehyde Dehydrogenase Deficiency (SSADHD) | Amanda Liebhardt, BS
- 1.111** A "Two-hit" Murine Model of FIRES: Fever Followed by Intrahippocampal Kainic Acid-induced Status Epilepticus in IL-1Ra Deficient Mice | Joonwon Kang, MD, PhD
- 1.115** Machine Learning Enables High-throughput, Low-replicate Reverse Genetic Screen for Novel Antiseizure Targets in Larval Zebrafish | Christopher McGraw, MD, PhD
- 1.160** Decreased Cholinergic Neuronal Activity in a Mouse Model of Impaired Consciousness in Temporal Lobe Seizures | Shixin Liu, BS
- 1.161** Altered PI3K/mTOR Signaling within the Forebrain Leads to Respiratory Deficits in a Mouse Model of SUDEP | Patrick Woller, BS
- 1.362** Hippocampal Somatic Variants Enriched in Ras-MAPK Genes in Temporal Lobe Epilepsy with Mesial Temporal Sclerosis | Sattar Khoshkhoo, MD
- 3.003** Microglia-dependent Changes of Extrasynaptic GABA-A Receptor Expression and Function in Thalamocortical Neurons After Traumatic Brain Injury (TBI) | Amber Nolan, MD, PhD
- 3.010** Computational Circuit Modeling in a Mouse Model of Dravet Syndrome | Patrick Lawlor, MD, PhD

## Special Poster Sessions | Sunday, December 4

- 3.012** Abnormal Parvalbumin-positive Interneuron Excitability in a Novel Mouse Model of Epileptic Encephalopathy Due to a Recurrent Kcnc1-p.A421V Variant | Eric Wengert, PhD
- 3.013** Evaluation of TSPO Ligands in Zebrafish Model of Dravet Syndrome | Lauryn Adair, BS
- 3.017** Depolarization Block is Common Pathway Leading to Ictogenesis for SCN1A Variants with Diverse Functional Effects | Andrew Knox, MD, MS
- 3.032** Inhibitory Theta Phase Locking in the Healthy and Epileptic Hippocampus and its Impact on Seizures and Cognition | Zoe Christenson Wick, PhD
- 3.033** Machine Learning-based System Discovery Identifies Cortical Inter-regional Coupling and Synchrony as an Absence Seizure Mechanism | Jacob Hull, PhD
- 3.045** Lasting Seizure Control upon Chemo-genetic Parvalbumin Cell Activation | Gabrielle McGinty, BS
- 3.050** Investigating PCDH19 Clustering Epilepsy Disease Mechanisms Using hESC-derived Models | Miranda Walker, BS
- 3.058** Chemo-genetic Approaches Reveal Dual Functions of Microglia in Epilepsy | Aastha Dheer, PhD
- 3.061** Cellular Contributions to Ictal Population Signals | Lauren Lau, PhD
- 3.109** Absence Seizures and Abnormal Sleep in a Rat Model of GRIN2B-related Disorder | Alfredo Gonzalez-Sulser, PhD
- 3.148** Disruption of Adenosine Metabolism in Mice Increases Risk of Seizure-induced Death Despite Decreased Seizure Severity: Implications for SUDEP | Benton Purnell, PhD
- 3.262** Senescence-specific Killing Compound 1 Alleviates Seizure Burden in a Model of Temporal Lobe Epilepsy | David McFall, AB
- 3.356** Voltage Clamp and Genetic Variant Pathogenicity: Epilepsy Sodium Channel Variant Curation Expert Panel Consensus | Stacey Cohen, MS, CGC
- 3.071** Transcriptome-wide Survey via RNA-seq Identifies Alterations in Spliceosome Gene Expression in Lymphoblast Cell Lines from Dravet Syndrome Patients | Ruth Fulton, MS

### Broadening Representation, Inclusion and Diversity by Growing Equity (BRIDGE)

Convention Center, WF4, Tangerine Ballroom, Level 2

**Moderator:** Joaquin Lugo, PhD, FAES

- 1.055** Early-onset Alzheimer's Disease Mouse Models Exhibit Differential Adenosine Receptor Expression in Response to Chronic Kindled Seizures | Aaron del Pozo, PhD

- 1.087** GLUT1 and Cerebral Glucose Hypometabolism Signatures in Human Focal Cortical Dysplasia Linked to Hypermethylation of Key Glucose Regulatory Targets | Chaitali Ghosh, PhD
- 1.096** Multimodal In vivo Imaging of Neuroinflammation and Behavioural Assessment in a Rat Model of Traumatic Brain Injury | Mohit Javalgekar, MS
- 1.160** Decreased Cholinergic Neuronal Activity in a Mouse Model of Impaired Consciousness in Temporal Lobe Seizures | Shixin Liu, BS
- 1.214** Noninvasive Brain Stimulation as a Focal Epilepsy Treatment in the Hospital, Clinic, and Home | Karimul Islam, MBBS
- 1.219** Pharmacoresistant Epilepsy: Prevalence and Risk Factors Amongst Epilepsy Patients in Cameroon | Mundih Njohjam, MD
- 1.240** Women with Epilepsy: Care for Sex- and Gender-specific Health Issues | Carmela Redhead, BSc, BScN, RN
- 1.251** Developmental Connectivity Atlas Based on Phase-Amplitude Coupling Between Physiologic High-frequency Oscillations and Slow Waves | Kazuki Sakakura, MD, PhD
- 1.255** Improved Seizure Onset-Zone Lateralization in Temporal Lobe Epilepsy Using 7T Resting-state fMRI: A Direct Comparison with 3T | Alfredo Lucas, BS, MS
- 1.256** Atypical Signal Flow Reflects Declarative Memory Compensatory Mechanisms in Temporal Lobe Epilepsy | Donna Gift Cabalo, RN, MA
- 1.258** Characterization of the Functional Connectivity in Patients with Psychogenic Nonepileptic Seizures (PNES): A Resting-state and Movie-driven fMRI Study | Gaby Moscol, MD
- 1.309** Social Disparities in the Utilization of Seizure Rescue Medications Among a Treatment-resistant Focal Epilepsy Population | Leticia Tedesco Silva, MD, PhD
- 1.345** Association Between Neighborhood Disadvantage and Cognition in Older Adults with Focal Epilepsy | Anny Reyes, PhD
- 1.365** Phenotypic and Genotypic Features Associated with Independent Motor and Communication Skills in CDKL5 Deficiency Disorder | Isabel Haviland, MD
- 1.386** Emergency Department Visits for Epileptic and Nonepileptic Seizures are Highest Among Low-income Minorities: A Single Center Experience in Washington, D.C. | Christopher Saouda, MD
- 1.393** Let's Hear from the Women: A Recount on Epilepsy Professionals' Experiences | Ana Suller Marti, MD, MSc, PhD



## Special Poster Sessions | Sunday, December 4

- 1.401** Inequitable Access to Pediatric Epilepsy Healthcare in New Zealand: A Population-based Study with a Focus on Ethnicity | Ngaire Keenan, MBChB
- 1.403** Social Determinants of Health Mini-Grants to Address Food and Housing Insecurities of People Living with Epilepsy | Thometta Cozart, MS, MPH, MCHES, CPH
- 1.405** Clinical Correlates of Negative Health Events Among People with Epilepsy Enrolled in a Self-management Clinical Trial | Gena Ghearing, MD
- 3.005** Dysfunction of Central and Peripheral Circadian Clock Genes in Models of Absence and Temporal Lobe Epilepsy | Pablo Casillas-Espinosa, MD, PhD
- 3.016** Identification of the Epileptic Engram in a Mouse Model of Temporal Lobe Epilepsy | Chidyaonga Shalita, Medical Student
- 3.031** Early and Late Desynchronization of Hippocampal and Entorhinal-Hippocampal Circuits in Chronically Epileptic Mice | Susie Yu Feng, BS
- 3.043** Towards an Optical Interrogation of VNS-evoked Cortical Activity for Evaluation of Therapeutic Effect | Laura RoaFiore, MS, BS
- 3.066** Progression of Entorhinal Spatial Coding Deficits in a Mouse Model of Temporal Lobe Epilepsy | Ivan Soler, BA
- 3.073** Localization and Visualization of Motor Semiology Using Intracranial Signal Processing | Natalia Sucher Munizaga, BA
- 3.113** Use of Ketamine Simulations to Guide Dose Selection and Optimal Sampling in KESETT | Adeboye Bamgboye, BPharm
- 3.126** Sleep-Wake State Modulation Alteration of Interictal Epileptiform Spikes in Temporal Lobe Epilepsy | Aisha Abdulrazaq, MD
- 3.138** Causal Evidence for the Processing of Bodily Self in the Anterior Precuneus | Dian Lyu, PhD
- 3.178** A Comparative Analysis of Patients with NORSE Preceded by Fever (i.e., FIRES) versus without Prior Fever | Anthony Jimenez, BS
- 3.222** Exploring the Relationship Between Epilepsy and Epileptic Heart: A Cross-sectional Analysis | Claudia Torres Romero, MD
- 3.226** Characterization of Estradiol, Estrone, and Progesterone Concentrations in Subpopulations of Pregnant Patients with Epilepsy on Lamotrigine | Yuhan Long, BS, BSChE
- 3.234** White Matter Organization of Memory Networks in Patients with Temporal Lobe Epilepsy | Venkata Sita Priyanka Illapani, MS
- 3.250** Interactions Among Epilepsy, Mental Health Conditions and Substance Abuse in Veterans Hospitalized for Acute Psychiatric Conditions | Vikas Singh, MD, MHSA, FAES
- 3.274** Retrospective, Multicenter Study of Lacosamide to Treat Neonatal Seizures | Alexandra Santana Almansa, MD
- 3.317** Surgical Resection with Adjunctive Responsive Neurostimulator Implantation for Treatment of Seizure Onset Zone Involving Eloquent Cortex in Pediatric Patients | Jessica Campos, MD
- 3.335** Dietary Whey Reduces Mortality in a Dravet Syndrome Mouse Model of SUDEP by Promoting Recovery from Apnea | Eduardo Bravo, PhD
- 3.342** Memory Assessment in Temporal Lobe Epilepsy Patients Using Natural Language Processing Applied to Spontaneous Speech | Eden Tefera, BS
- 3.349** Long-term Characterization of Cognitive Phenotypes in Children with Seizures over 36 Months | Temitayo Oyegbile-Chidi, MD, PhD
- 3.379** Self-reported Health and Quality of Life Outcomes in Patients with Acute Symptomatic Seizures | Clio Rubinos, MD, MS
- 3.382** Misconceptions Regarding EEG in Pediatric Residents at University of Kentucky | Prasanna Kumar Gangishetti, MBBS
- 3.387** Falling Through the Cracks: A National Provider Survey Exploring Barriers to Neuropsychological Evaluation in New Onset Pediatric Epilepsy | Sonya Swami, High School Diploma
- 3.400** Antiseizure Medication Adherence and County Variation in Inpatient Epilepsy Encounters: An Administrative Claims Data Analysis in New Hampshire | Elaine Kiriakopoulos, MD, MPH, MSc
- 3.406** National Epilepsy Learning Healthcare Registry: Mental Health in the LGBTQ+ Community | Maria Donahue, MD

### Pediatric Epilepsy Highlights Sessions

Convention Center, WF4, Tangerine Ballroom, Level 2

**Moderators:** Sarah Kelley, MD, FAES; and Rani Singh, MD

- 1.202** Data Collection System for Seizure Monitoring with Wearable Sensors | Michele Jackson, BA
- 1.233** 24-month Analysis of BUTTERFLY: A Prospective, Observational Study to Investigate Cognition and Other Nonseizure Comorbidities in Children and Adolescents with Dravet Syndrome (DS) | Joseph Sullivan, MD
- 1.251** Developmental Connectivity Atlas Based on Phase-Amplitude Coupling Between Physiologic High-frequency Oscillations and Slow Waves | Kazuki Sakakura, MD, PhD
- 1.328** Overlap of Spike and Ripple Propagation Onset Predicts Surgical Outcome in Drug-resistant Epilepsy | Saeed Jahromi, MSc

## Special Poster Sessions | Monday, December 5

- 1.391** Exploring National Practices on the Outpatient Management of Pediatric Psychogenic Nonepileptic Seizures: A Delphi Consensus Study | Afsaneh Talai, MD
- 2.061** Age at Seizure Onset and Surgical Intervention Together Influence Language Laterality and Plasticity Over Time: A TMS Study | Taylor Jones, BS
- 2.329** Treatment of Pediatric Drug-resistant Generalized Epilepsy with Responsive Neurostimulation of the Centromedian Nucleus of the Thalamus: A Case Series of Seven Pediatric Patients | Mikaela Speakes, MD
- 2.391** Pediatric Epilepsy Division Resources: Are We Sinking or Swimming? | Rachel Hirschberger, MD, MPH
- 3.317** Surgical Resection with Adjunctive Responsive Neurostimulator Implantation for Treatment of Seizure Onset Zone Involving Eloquent Cortex in Pediatric Patients | Jessica Campos, MD
- 3.251** Behavioral Health Outcomes in Pediatric Epilepsy: Findings from the Multi-site Surgery Database | Hayley Loblein, PhD

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Join leading experts as they spotlight interesting posters and facilitate discussion with authors, gaining new and different perspectives on the data presented.

To join a walking tour, gather at the Poster Information counter located near booth #112 in the poster hall.

Departure Time	Topic	Tour Leader
<b>Poster Session 1: Saturday, December 2   12:15 PM</b>		
12:15 PM	Neuroimaging	Victoria Morgan, PhD, FAES
12:25 PM	Clinical Epilepsy	Daniel Friedman, MD, FAES
12:35 PM	Basic Translational Science	Amy Brewster, PhD
12:45 PM	Genetics	Heather Mefford, MD, PhD
12:55 PM	ASM	Gregory Krauss, MD
1:05 PM	SUDEP	George Richerson, MD, PhD, FAES; and Elizabeth Donner, MD, MSc, FRCPC, FAES
<b>Poster Session 2: Sunday, December 3   12:15 PM</b>		
12:15 PM	Clinical Epilepsy	Alison Pack, MD, MPH, FAES
12:25 PM	Sleep and Epilepsy	Gordon Buchanan, MD, PhD, FAES
12:35 PM	Neuroimaging	Andrea Bernasconi, MD
12:45 PM	Surgery	Taylor J. Abel, MD; and John Rolston, MD, PhD
12:55 PM	Comorbidities	Jay Salpekar, MD
1:05 PM	Health Services	Daniel Lowenstein, MD
<b>Poster Session 3: Monday, December 4   12:15 PM</b>		
12:15 PM	Antiseizure Medications	Jacqueline French, MD, FAES
12:25 PM	Genetics	Anup Patel, MD
12:35 PM	Basic Translational Science	Yi-Chen Lai, MD, FAAP
12:45 PM	Clinical Epilepsy	Barbara Jobst, MD, PhD, FAAN, FAES
12:55 PM	Dietary Therapies	Eric Kossoff, MD, FAES

# Platform Sessions | Saturday, December 2

## Concurrent Platform Sessions

2:45 – 5:00 PM

There will be two concurrent sessions consisting of selected key scientific abstracts. Authors will present a 10-minute overview of their work followed by a five-minute Q&A session.

	<b>Platform A: Basic Mechanisms</b> Convention Center, W311 B-D, Level 3 <b>Moderators:</b> Mohamad Mikati, MD; and Sara Eyal, PhD, FAES	<b>Platform B: Neurophysiology</b> Convention Center, W311 F-H, Level 3 <b>Moderator:</b> Elaine Kobayashi, MD, PhD; and William Stacey, MD, PhD, FAES	<b>Platform C: Clinical Research</b> Convention Center, W312 A-C, Level 3 <b>Moderators:</b> Stephanie Auvin, MD, PhD; and Lisa Garrity, PharmD
2:45 PM	<b>A.01</b> Genetic Mapping Using Collaborative Cross Mice Resource Identifies Novel Candidate Genes of SUDEP Susceptibility   Bin Gu, PhD	<b>B.01</b> Visual Complexity of the Time-Frequency Image Pinpoints the Epileptogenic Zone: A Deep Learning Tool to Analyze Interictal Intracranial EEG   Eleonora Tamilia, PhD	<b>C.01</b> Exome-based Testing for Patients with Seizures: Advantages Over Panel-based Testing   Elizabeth Butler, MS, CGC
3:00 PM	<b>A.02</b> A Recurrent Epilepsy-associated KCNC1 Variant Leads to Dominant-positive Action in the Heterozygous State   Jerome Clatot, PhD	<b>B.02</b> Interictal MEG Abnormalities to Guide Intracranial Electrode Implantation and Predict Surgical Outcome   Peter Taylor, PhD	<b>C.02</b> Impact of Comorbid Sleep Disorders on Mortality Risk in Patients with Epilepsy   Marion Lazaj, MSc
3:15 PM	<b>A.03</b> Intestinal Dysbiosis Alters Seizure Burden and Antiseizure Medicine Activity Profile in the Theiler's Virus Model of Acute Encephalitis   Inga Erickson, BS	<b>B.03</b> Connectome Harmonic Decomposition of Functional Resting-state Activity in Focal Epilepsy   Joline Fan, MD	<b>C.03</b> Fetal Exposure-dependent Effects at Age 4.5 Years-old in Children of Mothers with Epilepsy in the MONEAD Study   Kimford Meador, MD
3:30 PM	<b>A.04</b> Exosomes Secreted from Epileptogenic TSC Tubers are Enriched for Proteins Associated with Vesicle-mediated Transport and Altered Electrophysiology   Dylan Ukasik, BS	<b>B.04</b> Impact of Closed Loop Auditory Stimulation on Slow Oscillations and Sleep Spindles in the Thalamus in Patients with Epilepsy   Dhinakaran Chinappen, MEng, MBA	<b>C.04</b> Seizures Predict Cognitive Decline in Cognitively Healthy Adults   Ifrah Zawar, MD
3:45 PM	<b>A.05</b> Elevated SUR1-TRPM4 Expression Due to Chronic Seizures Contributes to Epileptogenesis   Mitchell Moyer, BS	<b>B.05</b> Mapping the Cortex-wide Propagation of Direct Electrical Stimulation in Focal Cortical Dysplasia Type II   Aaron Warren, PhD	<b>C.05</b> Characterization of Estradiol, Estrone, and Progesterone Concentrations in Subpopulations of Pregnant Patients with Epilepsy on Lamotrigine   Yuhan Long, BS, BSChE
4:00 PM	<b>A.06</b> Interictal Spikes and High-frequency Oscillations (>250Hz) in Animal Models of Alzheimer's Disease   Christos Lisgaras, PhD	<b>B.06</b> BESPOC: A Novel Method for Naturalistic Language Mapping from iEEG Recordings of Spontaneous Conversation   Brian Ervin, PhD	<b>C.06</b> Long-term Treatment Outcome of MRI-diagnosed Focal Cortical Dysplasia in a Non-pediatric Setting: A Retrospective Cohort Study   Woo-Seok Ha, MD
4:15 PM	<b>A.07</b> Repurposing Dimethyl Fumarate as an Antiepileptogenic and Disease-modifying Treatment for Drug-resistant Epilepsy   Tawfeeq Shekh-Ahmad, PhD	<b>B.07</b> Theta-band Hyperconnectivity is Negatively Correlated with Cognition in Left Temporal Lobe Epilepsy   Priyanka Shah-Basak, PhD	<b>C.07</b> 1st Seizure in the ER: A 15-year Follow-up   Shivangi Pandya, MBBS, MMed (IM), MRCP (UK) (Neurology)
4:30 PM	<b>A.08</b> The Synergistic Relationship Between Alzheimer's Disease and Recurrent Seizures is Mediated by Dysregulated Gliosis and Reactivation of Immediate-Early Genes   Anna Harutyunyan, PhD	<b>B.08</b> Changes in Resting-state EEG Functional Connectivity Patterns and Lateralization of Drug-resistant Temporal Lobe Epilepsy   Neeraj Wagh, BS, MS	<b>C.08</b> Eating Disorders Occur at High Rates in Adolescents Seen in Epilepsy Clinics and are Associated with Psychiatric Comorbidities and Suicidality   Itay Tokatly Latzer, MD
4:45 PM	<b>A.09</b> Myeloid Differentiation Primary Response Gene 88-mediated Signaling is Critical for Generation of Seizures and Cognitive Impairment in Anti-NMDA Receptor Encephalitis   Olga Taraschenko, MD, PhD	<b>B.09</b> A Probabilistic Method for Rapidly Quantifying Excitatory and Inhibitory Firing Rates in Microelectrode Recordings   Andrew Michalak, MD, MS	<b>C.09</b> Utility of Genetic Testing in Adult Epilepsy Patients   Yi Li, MD, PhD

# Platform Sessions | Monday, December 4

## Concurrent Platform Sessions

3:15 – 5:30 PM

There will be two concurrent sessions consisting of selected key scientific abstracts. Authors will present a 10-minute overview of their work followed by a five-minute Q&A session.

	<b>Platform D: Epilepsy Therapies</b> Convention Center, W311 B-D, Level 3 <b>Moderators:</b> Melissa Barker-Haliski, PhD; and Mohamad Koubeissi, MD, MA, FAAN, FANA, FAES	<b>Platform E: Surgery</b> Convention Center, W311 F-H, Level 3 <b>Moderators:</b> Ruba Al-Ramadhani, MD; and Chengyuan Wu, MD, MSBmE	<b>Platform F: Computational Approaches</b> Convention Center, W312 A-C, Level 3 <b>Moderators:</b> Jane Allendorfer, PhD, FAES; and Jon Kleen, MD, PhD
3:15 PM	<b>D.01</b> Heterogeneity of Effects from Antiseizure Medication Withdrawal on Seizure Risk Increase Among Patients with Well-controlled Epilepsy: A Pooled Analysis   Samuel Terman, MD, MS	<b>E.01</b> The Effect of Single Lobe Resective Epilepsy Surgery on Tonic-Clonic Seizures   Juan Luis Alcala Zermeno, MD	<b>F.01</b> Machine Learning-based System Discovery Identifies Cortical Inter-regional Coupling and Synchrony as an Absence Seizure Mechanism   Jacob Hull, PhD
3:30 PM	<b>D.02</b> Interactions of Enzyme-inducing Antiseizure Medications with Direct-acting Oral Anticoagulants: Risk of Thromboembolic and Major Bleeding Events   Emily Acton, MSCE	<b>E.02</b> Co-lateralization of Language and Memory: Is Knowing Language Dominance Enough in Presurgical Planning?   Alena Stasenکو, PhD	<b>F.02</b> An International, Multicenter Study Validating an Intracranial EEG and Imaging-based Machine Learning Model for Predicting Post-operative Seizure Outcomes   Naoto Kuroda, MD
3:45 PM	<b>D.03</b> Time to Prerandomization Seizure Count Demonstrated Efficacy of Levetiracetam, Lacosamide, Lamotrigine, and Brivaracetam with Less Placebo Exposure   Wesley Kerr, MD, PhD	<b>E.03</b> Characterizing Cognitive and Neuropsychological Outcomes Following Pediatric Hemispherectomy   Michael Granovetter, PhD	<b>F.03</b> Memory Assessment in Temporal Lobe Epilepsy Patients Using Natural Language Processing Applied to Spontaneous Speech   Eden Tefera, BS
4:00 PM	<b>D.04</b> Brivaracetam Adjunctive Therapy in Earlier Treatment Lines in Adults with Focal-onset Seizures in Europe and Canada: Interim Results of 12-month Real-world Data from BRITObA   Susanne Knake, MD	<b>E.04</b> Seizure Onset Zones from Stereo-electroencephalography Map to a Common Brain Network   Zhanqi Hu, MD	<b>F.04</b> Machine Learning Enables High-throughput, Low-replicate Reverse Genetic Screen for Novel Antiseizure Targets in Larval Zebrafish   Christopher McGraw, MD, PhD
4:15 PM	<b>D.05</b> Rational Combination of Repurposed FDA-approved Drugs for Epilepsy Prevention After Traumatic Brain Injury in Rats   Mustafa Hameed, MD	<b>E.05</b> Cognitive and Seizure Outcomes for Anterior Temporal Lobectomy versus Laser Ablation in Temporal Lobe Epilepsy   Ellery Wheeler, BS	<b>F.05</b> Automated Determination of Seizure Onset Focality and Spread Using Machine Learning Approaches   Nikola Bolt, MS
4:30 PM	<b>D.06</b> Retrospective, Multicenter Study of Lacosamide to Treat Neonatal Seizures   Alexandra Santana Almansa, MD	<b>E.06</b> Genetic Basis of Focal Cortical Dysplasia in a Large French Cohort: Phenotypic-Genotypic Correlations   Mathilde Chipaux, MD, PhD	<b>F.06</b> EEG-GPT: Exploring Capabilities of Large Language Models for EEG Classification and Interpretation   Jonathan Kim, BS
4:45 PM	<b>D.07</b> Social Disparities in the Utilization of Seizure Rescue Medications Among a Treatment-resistant Focal Epilepsy Population   Leticia Tedesco Silva, MD, PhD	<b>E.07</b> The Long-term Memory Network Plasticity After Anterior Temporal Lobe Resection   Marine Fleury, BSc, MRes	<b>F.07</b> Seizure Recurrence Prediction from MRI and Clinical Information Using Novel Brain Features for Machine Learning   Soumen Ghosh, Mtech
5:00 PM	<b>D.08</b> PRAX-628 is a Next Generation Functionally Selective Small Molecule with Potent Antiseizure Activity and Potential as Best-in-Class Treatment for Focal Epilepsy   Lyndsey Anderson, PhD	<b>E.08</b> Non-invasive EEG Source Imaging of Irritative Hubs Predicts Post-surgical Outcome and Reveals Fingerprints of Epileptogenic Pathologies   Lorenzo Ricci, MD	<b>F.08</b> Deep Learning-based Segmentation of Laser Thermal Therapy Ablation Volume   Christian Raimondo, MS
5:15 PM	<b>D.09</b> First-in-Human Trial of NRTX-1001 GABAergic Interneuron Cell Therapy for Treatment of Focal Epilepsy - Emerging Clinical Trial Results   David Blum, MD	<b>E.09</b> Post-processing of EEG and Neuroimaging in Epilepsy Surgery Evaluation: A Head-to-head Comparison Study   Evy Cleeren, PhD	<b>F.09</b> The Impact of Machine Learning Models in Reducing Variants of Uncertain Significance in Individuals from Underrepresented Populations Who are Undergoing Genetic Testing for Epilepsy   Ana Morales, MS, CGC



# Programming Focused on Health Equity, Access to Care, and Diversity

The AES Council on Education recommends these education sessions for attendees wanting to learn more about how to address disparities in healthcare for people with epilepsy, social determinants of health that impact outcomes, and growing a diverse epilepsy professional community.

## FRIDAY, DECEMBER 1

9:00 AM

AES-CNF Symposium | Dilemmas in Genetic Testing: Ending the Diagnostic Odyssey in Epilepsy

ILAE North American Commission Symposium | Bridging Epilepsy Care Disparities

12:30 PM

Advanced Practice Provider Symposium | My Chemical Romance: Regulatory Systems Affecting Quality of Life in People with Epilepsy

Annual Fundamentals Symposium | Antiseizure Medications: A through Z

1:00 PM

Special Lecture | Epilepsy Fellowship Program Directors Meeting

2:30 PM

Spanish Symposium | Epilepsy Surgery in Resource-limited Settings

3:30 PM

SIG | Neuroendocrinology: The Influence of Sex Hormones on Neuronal Excitability from Mice to Humans

6:00 PM

SIG | Tuberous Sclerosis Complex (TSC): Epilepsy Surgery for Everyone with Tuberous Sclerosis Complex



## SATURDAY, DECEMBER 2

7:00 AM

**SIG | SUDEP: Sudden Unexpected Death in Epilepsy (SUDEP) from the Top Down**

8:45 AM

**Presidential Symposium | At the Cutting Edge: Epilepsy Therapies in 2023 and Beyond**

2:30 PM

**Hot Topics Symposium | Health Equity in Vulnerable Populations**

**Scientific Symposium | New Insights on Epileptogenesis and Therapeutic Discovery from Encephalitis-induced Epilepsy Models**

## SUNDAY, DECEMBER 3

8:45 AM

**Annual Course | It's About *Time*: Timing in Epilepsy Evaluation and Treatment**

1:30 PM

**IW | Addressing Social Determinants of Health to Promote Equitable Epilepsy Care**

2:30 PM

**Best Practices in Clinical Epilepsy Symposium | Inclusive Care in Epilepsy: Is a Single Provider Doing All Roles?**

6:00 PM

**SIG | Global Health: The Global Approach to Tele-care Delivery: Bridging the Epilepsy Gap**

**SIG | Health Disparities: Health Disparities in Epilepsy: Creating a Roadmap for Action**

## MONDAY, DECEMBER 4

7:00 AM

**SIG | Neuropsychology: Mapping Cognition in Epilepsy: From the Lab to the Clinic**

9:00 AM

**Special Lecture | ILAE-IBE Actioning the Action Plan: Interactive Discussion on Driving Forward the 2022-2031 Intersectoral Global Action Plan on Epilepsy and Other Neurological Disorders (IGAP)**

**Translational Research Symposium | Data Sharing for Improving and Accelerating Translational Outcomes**

## TUESDAY, DECEMBER 5

7:00 AM

**SIG | Epilepsy Education: Epilepsy Education Throughout the Training Pipeline**

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# Poster Schedules

## Poster Schedules

Numbers shown indicate the poster hall board assignment. Refer to [aesnet.org/abstracts](http://aesnet.org/abstracts) for details.

Please use the alternate entrance (West Hall D1, Level 2) to poster hall between 8:00–10:00 AM Monday. Refer to Program Book Floor Plan on page 11.

	<b>Saturday, December 2</b> <b>Poster Session 1:</b> 12:00–6:00 PM Orange County Convention Center, West Concourse, West Hall C, Level 2	<b>Sunday, December 3</b> <b>Poster Session 2:</b> 10:00 AM–4:00 PM Orange County Convention Center, West Concourse, West Hall C, Level 2	<b>Monday, December 4</b> <b>Poster Session 3:</b> 8:00 AM–2:00 PM Orange County Convention Center, West Concourse, West Hall C, Level 2 Beverages and snacks available
Basic Mechanisms	1.001–1.068		3.000–3.069
Translational Research	1.069–1.122		3.085–3.114
Neurophysiology	1.123–1.187	2.001–2.111	3.115–3.177
Clinical Epilepsy	1.188–1.241	2.112–2.194	3.178–3.226
Neuroimaging	1.242–1.259	2.195–2.234	3.227–3.245
Comorbidities (Somatic and Psychiatric)	1.260–1.268	2.235–2.243	3.246–3.254
Anti-seizure Medications	1.269–1.310		3.255–3.298
Non-ASM/Non-Surgical Treatments		2.244–2.309	
Surgery	1.311–1.340	2.310–2.335	3.299–3.324
Dietary Therapies			3.325–3.336
Behavior/Neuropsychology/ Language	1.341–1.354	2.336–2.350	3.337–3.353
Genetics	1.355–1.369	2.351–2.364	3.354–3.366
Health Services	1.370–1.388	2.365–2.383	3.367–3.385
Neuropathology of Epilepsy		2.384–2.387	
Practice Resources	1.389–1.393	2.388–2.392	3.386–3.390
Epidemiology	1.394–1.402	2.393–2.401	
Public Health	1.403–1.410	2.402–2.409	3.391–3.406
Case Studies	1.411–1.420	2.410–2.420	3.407–3.420
Late Breaking	1.421–1.512	2.421–2.513	3.421–3.512



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- A free subscription to *Epilepsia*, the research journal of the ILAE\*
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### POSTER SESSIONS

**Session 1:**  
Saturday, December 2  
12:00 – 6:00 PM

**Session 2:**  
Sunday, December 3  
10:00 AM – 4:00 PM

**Session 3:**  
Monday, December 4  
8:00 AM – 2:00 PM

Orange County Convention Center, West Concourse, West Hall C, Level 2

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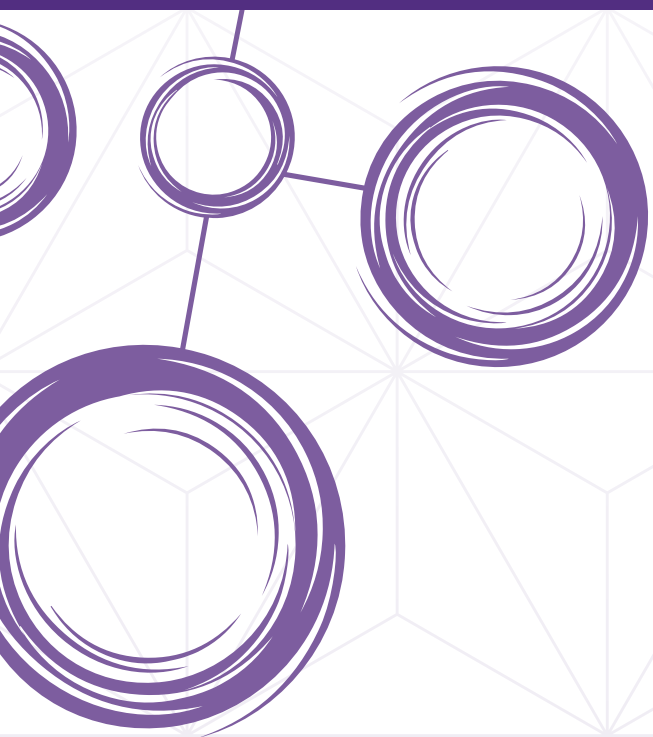


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The AES 2023 Ribbon Wall is supported by Jazz Pharmaceuticals, Inc.



8:30 – 9:45 AM

## Professional Development | Career Skills: Career Strategic Planning – How to Map Out Your Career

Convention Center, WF2, Tangerine Ballroom, Level 2

### Overview

While most epilepsy professionals receive excellent training in clinical and/or research skills, programs rarely include strategic planning skills that can enhance career satisfaction and achievement in any role. Strategic planning is one of those key skills, which can enhance both career success and satisfaction. This session provides resources and a workshop-style format for attendees to practice skills in strategic planning.

This interactive workshop provides attendees with resources for career strategic planning and an opportunity to start their own individual career strategic plan. Attendees craft mission and vision statements and develop related SMART goals during the session and engage in interactive table discussion with session moderators.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Develop a draft of personalized career mission and vision statements
- Formulate a SMART goal directly related to their career mission/vision
- Implement initial steps toward reaching their SMART goal

**Co-Chairs: Heidi Munger Clary, MD, MPH, FAES; and Daniel Correa, MD, MSc**

**Table Moderators: Pablo Casillas-Espinosa, MD, PhD; Dalila Lewis, MD, FAAP; Sharon Lewis, MD; Farah Lubin, PhD, FAES; Rohit Marawar, MD, FAES; Patricia McGoldrick, MPAS, MSN, APRN, FAES; Terence O'Brien, MD, FRACP, FAES; Veeresh Kumar N. Shivamurthy, MD; and Brett Youngerman, MD, MS**

### Program

Introduction: Strategic Planning – Tools to Get Started | Heidi Munger Clary, MD, MPH, FAES

Table Discussions

Wrap-up: Examples and Next Steps | Daniel Correa, MD, MSc

8:30 – 11:30 AM

## Epilepsy Specialist Symposium | The Frontal Lobe: Bermuda's Triangle

Convention Center, W415 A/B, Valencia, Level 4

 Digital Select  CME & CE

### Overview

The frontal lobes are the largest lobes of the human brain composing over 40% of the total cerebral cortex volume. There is a wealth of behavioral and seizure semiology symptoms that can arise from it. Simplified, the frontal lobe can be viewed as a triangular body with 3 main surfaces: medial, dorsolateral, and basal/orbito-frontal. Its size and complexity pose challenges in the diagnosis, localization, and treatment of focal epilepsies arising from this area. A forgotten, transverse triangular coronal EEG montage attempted to assess deep frontal and temporal lobe structures.

In this symposium, we address the intricacies of the frontal lobe, starting with its anatomy, aura seizure presentation, cognitive/behavioral correlates, genetics/imaging correlates, and surgical approaches for the treatment of frontal lobe epilepsies.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Describe different types of auras originating from the frontal lobe and their anatomical substrate
- Recognize cognitive and behavioral complications related to frontal lobe epilepsy
- Discuss genetic and imaging advances used to study frontal lobe epilepsy
- Recognize surgical approaches and the prognosis of frontal lobe epilepsy

**Co-Chairs: Ignacio Valencia, MD, FAES; and Barbara Jobst, MD, PhD, FAAN, FAES**

### Program

Introduction | Ignacio Valencia, MD, FAES

From Anatomy to Auras | Prakash Kotagal, MD, FAAN, FAES

Cognitive and Behavioral Complications of Frontal Lobe Epilepsy: Symptoms, Assessment and Therapy | Kayela Arrotta, PhD

Genetics and the Frontal Lobe | Annapurna Poduri, MD, MPH, FAES

What can We Learn from Multimodal Imaging: When MRI, EEG, MEG, PET, and SPECT Collide | Kathryn Davis, MD, FAES

Surgical Approaches to Frontal Lobe Epilepsy in Countries with Lower Resources | Mario Alonso Vanegas, MD, FAES

## Program | Friday, December 1

Outcomes in Frontal Lobe Epilepsy: The Good, The Bad, and the Ugly | Barbara Jobst, MD, PhD, FAAN, FAES

Panel Discussion | All Faculty

### Education Credit

3.0 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](https://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

9:00 – 11:30 AM

## ILAE North American Commission Symposium | Bridging Epilepsy Care Disparities

Convention Center, W415 C/D, Valencia, Level 4

 Digital Select  CME & CE

### Overview

The session highlights healthcare disparities in epilepsy and solve them. The focus of the talks and discussion is to address the treatment gap.

We highlight how one clinician investigator used data to convince Colorado Legislature to fund routine dialysis for undocumented individuals. The next talk highlights Epilepsy Foundations and other efforts to reach Black Americans with epilepsy. Next, a short 6-minute talk on the disparity in status epilepticus incidence amongst Black Americans. Then we turn to treatment gaps among the Hispanic population in the US. Next, a short talk on how epilepsy care is delivered in El Paso, Texas. Next, Managing Epilepsy Well: One approach to bridging the treatment gap is to empower patients and care providers in the self-management of epilepsy. The Centers for Disease Control and Prevention (CDC) supports the Managing Epilepsy Well (MEW) Network, whose mission is to advance epilepsy self-management by facilitating and implementing research, conducting research in collaboration with network and community stakeholders, and broadly disseminating the findings. Finally, a short talk on delivering epilepsy care in Alaska.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Describe barriers to epilepsy care for Black Americans, Hispanics, and those living far from large academic medical centers
- Recognize current approaches to bridge the treatment gap amongst underserved populations
- Improve sensitivity to social and economic barriers to epilepsy care

**Chair: Jaideep Kapur, MBBS, PhD, FAES**

### Program

Introduction | Jaideep Kapur, MBBS, PhD, FAES

Epilepsy in Black Americans: Challenges and Opportunities | Mill Etienne, MD, MPH, FAAN, FANA, FAES

Bridging Epilepsy Care Disparities: A View from NINDS | Cheryse Sankar, PhD

Status Epilepticus: Incidence, Outcomes, and Mortality | Gabriela B. Tantillo Sepulveda, MD, MPH

Bridging the Gap in Hispanic Populations | Joseph Sirven, MD, FAAN, FANA, FAES

Providing Epilepsy Care in El Paso, Texas | Karen Skjei MD

Bridging the Geographic Divide | Elizabeth Donner, MD, MSc, FRCPC, FAES

Epilepsy Education Curriculum: Focus on Disparities | Camilo Gutierrez, MD, FAES

Panel Discussion | All Faculty

### Education Credit

2.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](https://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

9:00 AM – 12:00 PM

## AES-CNF Symposium | Dilemmas in Genetic Testing: Ending the Diagnostic Odyssey in Epilepsy

Convention Center, WF1, Tangerine Ballroom, Level 2

 Digital Select  CME & CE

### Overview

There are many dilemmas that medical professionals in epilepsy grapple with when conducting genetic testing for their patients. Once an opportunity to do genetic testing is identified, there are many more questions that arise. Knowing the right time to test, understanding the results of a test, discussing results with patients, and answering questions from families make the process of doing genetic testing time-consuming and challenging.

This session addresses a number of dilemmas related to genetic testing, including clinical concerns, clinical care scenarios, transition to adult care, and treatment implications. This is addressed through a series of presentations and interactive activities. We share perspectives from physicians, researchers, and genetic counselors, plus people living with epilepsy and their family members, about how to address these dilemmas.

**Learning Objectives**

Following participation in this activity, participants will be able to:

- Evaluate the challenges of genetic testing for people with epilepsy
- Better manage common dilemmas related to genetic testing in the clinical setting
- Make informed treatment decisions based on genetic testing results

**Co-Chairs: Anup D. Patel, MD, FAAN, FAES; and Sarah Kelley, MD, FAES**

**Moderator: Paul Cooper**

**Program**

Introduction | Anup D. Patel, MD, FAAN, FAES

Patient & Caregiver Dilemmas: What I Would Like Clinicians to Know | Tristin West

Clinical Dilemmas Related to Genetic Testing | Krista Schatz, MS, CGC; and Christa Habella, MD, PhD

Dilemmas in Clinical Care Scenarios | Dalila Lewis, MD, FAAP

Genetic Testing in the Transition to Adult Care | Danielle Andrade, MD, MSc, FRCPC

Treatment Dilemmas | Scott Demarest, MD

Winding Down | Sarah Kelley, MD, FAES

**Education Credit**

3.0 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](http://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

9:00 AM – 4:00 PM

**Other Programming | 36th Annual Advances in the Management of Epilepsy and the Epilepsy Clinic**

Hyatt Regency, Plaza International Ballroom I, Convention Level

10:00 – 11:15 AM

**Professional Development | Career Pathways: Clinical Care Emphasis Panel**

Convention Center, WF4, Tangerine Ballroom, Level 2

**Overview**

Exposure to the opportunities and challenges of different clinical career pathways can be limited (e.g., minimal exposure to private practice in an academic medical center). This session (which is part of the Fellows program, but open to everyone) brings together a panel of clinicians

who work in a variety of clinical care settings and in a variety of roles, including some who have transitioned into different settings or roles over the course of their career. Participants explore career options through three different Career Pathways panels, each with a different emphasis. The Research, Clinical Care, and Interprofessional Career Pathways sessions are concurrent and participants may go between sessions, which take place in adjacent rooms. Hear from experts who have walked in your shoes and can offer advice on your next career move in the Clinical Care Career Pathways panel!

This panel covers a breadth of career options in academia, private practice and telemedicine, as well as clinical career focus areas, including education and research. It is designed to share panelists' career trajectories and the nature of their work. Speakers have been selected based on their experience and expertise in their fields. Participants explore career options through three concurrent Career Pathways panels, each with a different emphasis: Research, Clinical Care, and Interprofessional, and are able to move between sessions in adjacent rooms.

**Learning Objectives**

Following participation in this activity, participants will be able to:

- Employ key skills to determine which career path would be most fitting for their future

**Co-Chairs: Lynn Liu, MD, MEd, FAES; and Heather Ravin McKee, MD, FAES**

**Panelists: Fawad Bilal, MD, FACNS; Kevin Hass, MD, PhD, FAES; Omar Khan, MD, FAES; Yafa Minazad, DO; Sarah Schmitt, MD, FAES; and Sushma R. Yerram, MD**

10:00 – 11:15 AM

**Professional Development | Career Pathways: Interprofessional Panel**

Convention Center, WF3, Tangerine Ballroom, Level 2

**Overview**

This panel shares interprofessional career pathway options for non-physician healthcare providers. This is an open forum of question/answer with audience and panel members focusing on professional development from an interdisciplinary perspective. Participants explore career options through four different Career Pathways panels, each with a different emphasis. The Research, Clinical Care, and Interprofessional Career Pathways sessions are concurrent and participants may go between sessions, which take place in adjacent rooms. Hear from experts who have walked in your shoes and can offer advice on your next career move in the Interprofessional Pathways panel!

## Program | Friday, December 1

### Learning Objectives

Following participation in this activity, participants will be able to:

- Describe panel member faculty paths and successes and barriers to achieving professional career paths
- Provide strategies for professional growth in the field of epilepsy

**Co-Chairs: Shanna Guilfoyle, PhD; and Mdghann Soby, MSW, LCSW**

**Panelists: Shanna Guilfoyle, PhD, FAES; Lisa Garriy, PharmD; Aimee Smith, PhD; Mdghann Soby, MSW, LCSW; and Yinchen Song, PhD**

10:00 – 11:15 AM

### Professional Development | Career Pathways: Research Emphasis Panel

Convention Center, WF2, Tangerine Ballroom, Level 2

#### Overview

Understanding career options in research across a range of academic sectors can better prepare fellows/ trainees for the road ahead. In this interactive session, panelists share their career trajectories and current positions, including challenges and wins along the way. Participants explore career options through three different Career Pathways panels, each with a different emphasis. The Research, Clinical Care, and Interprofessional Career Pathways sessions are concurrent and participants may go between sessions, which take place in adjacent rooms. Hear from experts who have walked in your shoes and offer advice on your next career move in the Research Emphasis Pathways panel!

This panel highlights a breadth of career options in more teaching focused positions, traditional university positions, and medical school faculty. Participants explore career options through three concurrent Career Pathways panels, each with a different emphasis: Research, Clinical Care, and Interprofessional, and are able to move between sessions in adjacent rooms, utilizing the opportunity to ask questions regarding the transition to career paths that fit their interests and skills. Attendees are encouraged to engage with panelists in breakout sessions following the panel discussion.

#### Learning Objectives

Following participation in this activity, participants will be able to:

- Identify multiple career path options for researchers
- Evaluate factors to help determine which career path(s) are the best fit for their interests and skills

**Co-Chairs: Joaquin Lugo, PhD, FAES; and Senyene Hunter, MD, PhD**

**Panelists: Catherine Christian-Hinman, PhD; Kathryn Davis, MD, FAES; Patrick Forcelli, PhD; Nathan Fountain, MD, FAES; Susan Masino, PhD; Lena Nguyen, PhD, Alison Pack, MD, MPH, FAES; Page Pennell, MD, FAES; and Viji Santhakumar, PhD**

11:30 AM – 12:45 PM

### Professional Development | Career Skills: Finding the Right Job and Tips for the Interview Process

Convention Center, WF4, Tangerine Ballroom, Level 2

#### Overview

There are many types of positions for clinicians and basic science researchers, but most trainees are unaware of them and try to find them on their own. Once you have found the position, then the interview is your best opportunity to ensure the position is the right fit for you and to demonstrate to potential employers why you are the best candidate for the job.

This session gives you the knowledge to explore many academic and non-academic job options. We start with one person's experience applying to different types of jobs and their journey through the interview process. A panelist then expands upon strategies to explore the different types of career options. A second panelist then provides information on the skills in which you need to excel at your next interview. We then have a panel discussion by leading epilepsy professionals from the research, clinical, and industry sectors.

#### Learning Objectives

Following participation in this activity, participants will be able to:

- Use strategies to explore multiple types of career options
- Apply key skills to determine if the position for which they are interviewing fits their desired career path
- Identify key questions to ask or not ask during the interview process

**Co-Chairs: Kimberly Pargeon, MD, FAES; and Joaquin Lugo, PhD, FAES**

#### Program

Introduction: Different Career Choices | David Millett, MD, PhD

Interviewing Skills and How to Sell Yourself: What Questions to Ask (or Not Ask) and When to Ask Them | Daniel Lowenstein, MD

What Types of Jobs Can I Do with My Training? Academics, Primary Research, Hospitalist, Private vs. Public Hospital, Remote Reading / Monitoring (for EEG and IOM), Industry, Locums, Private Practice | Jeremy Moeller, MD, FAES

Panelists Discuss Different Tracks and What They Look for in a Prospective Candidate | David Millett, MD, PhD; Jeremy Moeller, MD, FAES; Juliette Knowles, MD, PhD; and Kimberly Pargeon, MD, FAES, FACNS



12:30–3:00 PM

## Advanced Practice Providers (APPs) Symposium | My Chemical Romance: Regulatory Systems Affecting Quality of Life in People with Epilepsy

Convention Center, W415 C/D, Valencia, Level 4

 Digital Select  CME & CE

### Overview

This session addresses common, yet rarely discussed with patients, comorbidities in people with epilepsy (PWE). Ways to monitor and manage these contributory issues are discussed, as well as how physical activity can be used to improve seizure control and quality of life (QoL) in PWE. Practitioners should be cognizant of the topics outlined below as these concomitant issues can affect seizure control and QoL in PWE, as well as interventions to address these issues, including but not limited to, incorporation of appropriate and safe physical activity.

The APP Symposium discusses hormonal comorbidities for patients with epilepsy and ways to mitigate and manage them. The comorbidities covered include sleep issues (especially related to obesity and certain epilepsy types), osteoporosis, sexual side effects of both epilepsy and ASMs, and reversible causes of memory issues. The final talk is on the beneficial effects of physical activity on epilepsy and the above comorbidities. A patient advocate shares their story on the effects of physical activity on their seizure control and quality of life. The symposium concludes with a panel discussion with the presenters.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Identify and mitigate sleep-related issues that affect seizure control and overall QoL in PWE
- Implement strategies to evaluate and manage bone health, including osteoporosis, in PWE
- Evaluate for and support PWE who report sexual side effects potentially related to their epilepsy and/or ASM regimen
- Investigate and mitigate potential non-seizure related contributors to memory complaints in PWE
- Weigh the pros and cons of integrating appropriate and safe physical activity into their patient’s treatment regimens and lives

**Co-Chairs: Kelly Conner, PhD, MMSc, PA-C; and L. David Klemens, NP, MSN**

### Program

Welcome | Kelly Conner, PhD, MMS, PA-C

Introduction | L. David Klemens, NP, MSN

Patient Advocate Story | Jennifer Walden

Registrants: Find the most up-to-date information at [aesnet.org/AES2023](https://aesnet.org/AES2023)

Enter Sandman: Sleep, Body Habitus, and Epilepsy | M. Raquel Lopez, MD, FAES

Bad for the Bone: What is Our Role in Managing Osteoporosis? | Alison Pack, MD, MPH, FAES

Sex, Drugs, and Epilepsy: Sexual Issues in Men and Women with Epilepsy | Oliver Henning, MD

Don’t You Forget About Me: Non-seizure-related Reversible Causes of Memory Deficits in PWE | Tara Jennings, CRNP

Let’s Get Physical: Improving QoL and Metabolic Issues in PWE through Physical Activity | Halley Alexander, MD

Panel Discussion | All Faculty

### Education Credit

2.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](https://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

12:30–3:00 PM

## Annual Fundamentals Symposium | Antiseizure Medications: A through Z

Convention Center, W415 A/B, Valencia, Level 4

 Digital Select  CME & CE

### Overview

Antiseizure medications are a mainstay of epilepsy therapy. However, status epilepticus is often inadequately treated, and societal and economical constraints may pose limits on medical management. We now have more than 25 FDA-approved drugs and choosing the first or subsequent antiseizure agent or combination therapy can be a daunting task. Older agents have a long track record and are often well-researched but their adverse effect profile or drug-drug interactions can be off-putting. Newer drugs may present a more attractive choice given their reported efficacy and better tolerability. Yet, long-term data or studies in special populations may be conflicting or lacking. General sparsity of head-to-head comparative trials and a strive for precision therapy that considers genetic etiology further add to a practitioner’s conundrum.

The 2023 Annual Fundamentals Symposium delivers an overview of the current antiseizure medication landscape and presents a practical appraisal of their application in clinical practice, presents AES recommendations for effective management of status epilepticus, and discusses socio-economical barriers to access to pharmacotherapy among different countries.

# Program | Friday, December 1

## Learning Objectives

Following participation in this activity, participants will be able to:

- Review and appropriately use and monitor older antiseizure medications
- Recognize and effectively utilize newer antiseizure medications in treating people with epilepsy
- Describe how to select antiseizure medications based on principles of precision medicine
- Appreciate how to appropriately treat status epilepticus
- Review barriers to access of effective treatments for epilepsy in low- and middle-income countries

**Co-Chairs: Alica Goldman, MD, PhD, FAES; and Timothy Welty, PharmD, FCCP, BCPS, FAES**

## Program

Introduction | Timothy Welty, PharmD, FCCP, BCPS, FAES

The Oldies but Goodies: We Don't Want to Go Yet! | Jeanine Conway, PharmD, FAES

The Newest Kids on the Block: Do They Have Better Safety/Efficacy and When and How to Use Them? | Jaci Bainbridge, PharmD, MS, FCCP, FAES

Targeted, Precision ASM: What is Available Today? | Kristen Park, MD

Putting the Brakes on Status: What's on the Menu in 2023? | David Vossler, MD, FAAN, FACNS, FAES

Barriers to Access to Pharmacotherapy: International Viewpoint | Archana Patel, MD, MPH

Panel Discussion | All Faculty

## Education Credit

2.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](https://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

1:00 – 3:00 PM

## Special Lecture | Epilepsy Fellowship Program Directors Meeting

Convention Center, W230 C/D, Level 2



CME

## Overview

The AES Epilepsy Fellowship Program Directors Meeting is an annual education activity that provides continuing medical education (CME) credits for program directors running fellowships in epilepsy and clinical neurophysiology training programs. The session includes general updates for fellowship program directors as well as opportunities for open discussion. This year the program focuses on the National Resident Matching Program (the NRMP match);

issues of diversity, equity and inclusivity (DEI) within fellowship programs; and the development of strategies to train fellows within the first few months of fellowship to ensure that all fellows rapidly learn fundamental epilepsy and EEG skills.

Our proposed agenda addresses three areas:

1. Information gathered from the NRMP Match (first year following), including data about the number of participating programs, the number of fellowship applicants, and the number of matched applicants; commonly encountered challenges during the Match process, as well as the successes and future opportunities presented by the Match, are addressed
2. The issue of diversity, equity, and inclusivity among epilepsy fellows, including how programs can recruit a diverse group of fellows to their programs, and how programs can help fellows from diverse backgrounds to develop successful careers in epilepsy
3. The concept of developing an early training curriculum for epilepsy fellows, including existing resources to help fellows from different backgrounds learn epilepsy and EEG skills quickly

## Learning Objectives

Following participation in this activity, participants will be able to:

- Describe the NRMP Match process and appraise the data gathered regarding the Match following its initial year
- Develop strategies to improve diversity, equity, and inclusivity within fellowship recruitment
- Develop strategies for career development among a diverse group of trainees
- Develop a curriculum to train epilepsy fellows at the beginning of their fellowship

**Chair: Sarah Schmitt, MD, FAES**

## Program

The Match: What We Learned in Year One | Sarah Schmitt, MD, FAES

Improving Diversity in Fellowship Recruitment and Career Development | Elizabeth Felton, MD, PhD, FAES

Getting Fellows Up and Running | Lynn Liu, MD, MEd, FAES

Panel Discussion | All Faculty

## Education Credit

2.0 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](https://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

2:30–5:00 PM

## Spanish Symposium | Epilepsy Surgery in Resource-limited Settings

Convention Center, W230 A/B, Level 2



### Overview

This symposium addresses the underutilization of epilepsy surgery in Latin America and Spain—from implementation and performance of surgeries, to establishing surgery centers and cases in centers with limited resources.

Representatives from centers performing surgery in Latin America share their experiences of implementation and performance of surgeries. Also, speakers with experience in establishing surgery centers discuss examples of implementation and the need to implement surgery centers. In addition, cases done in centers with limited resources are discussed.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Discuss ways to establish surgery centers in resource-limited areas
- Conduct field assessment to establish surgery centers
- Describe what surgical procedures can be performed in resource-limited areas

**Chair: Jorge Burneo, MD, MSPH, FAAN, FAES, FRCPC**

### Program

Introduction | Jorge Burneo, MD, MSPH, FAAN, FAES, FRCPC

Epidemiology of Epilepsy and Therapy-resistant Epilepsy in Latin America and Spain | Carlos Alva-Diaz, MD

What are the Resources Available? What is Needed to do Epilepsy Surgery? | Andrea Lowden, MD

Epilepsy Surgery in Latin America: Indications for Resective Surgery in Pediatric and Adult Epilepsy | Federico Sanchez-Gonzalez, MD

Epilepsy Surgery in Spain: SEEG vs. Subdural Grids/Lines | Vicente Villanueva, MD

Research Using Surgically Resected Tissue in Latin America | Sandra Orozco-Suárez, MD

Education and Collaboration in Epilepsy Surgery | Elma Paredes Aragon, MD

Panel Discussion | All Faculty

### Education Credit

2.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](http://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

Registrants: Find the most up-to-date information at [aesnet.org/AES2023](http://aesnet.org/AES2023)

3:00–4:15 PM

## Professional Development | Career Pathways: Non-Academic/Alternative Careers Panel

Convention Center, WF4, Tangerine Ballroom, Level 2

### Overview

New for 2023! Participants explore career options through four Career Pathways panels, each with a different emphasis: Research, Clinical Care, Interprofessional, and Non-Academic/Alternative Career. The Non-Academic/Alternative Career Pathways session is scheduled apart from the other three sessions to ensure that all who are interested can attend. Hear from experts who have walked in your shoes and can offer advice on your next career move in the Non-Academic/Alternative Career Pathways panel!

Understanding career paths across a range of settings can better prepare early career scientists and clinicians for the road ahead. This panel highlights a breadth of career options in industry, non-profit, government, and other non-academic sectors. In this interactive session, panelists share their career trajectories and current positions, including challenges and wins along the way. Participants have the opportunity to ask questions regarding the transition to career paths that fit their interests and skills, and are encouraged to engage with panelists in breakout sessions following the panel discussion.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Identify multiple non-academic career path options for researchers and clinicians
- Explore strategies for transitioning from academic to non-academic career paths

**Co-Chairs: Elizabeth Felton, MD, PhD, FAES; Candi LaSarge, PhD; Joaquin Lugo, PhD, FAES; and Angela Parsons, DO, MS**

**Panelists: Madhureeta Achari, MD; Monica Dhakar, MD, FAES; Veronica Hood, PhD; Matt Kelley; Emily Klatte, MD, MBA, FAES; Melissa Miller, PhD; Diego Morita, MD; Emily Rogers; Jason Rogers; Palak Shah, MD; and Fraser Sparks, PhD**

## Program | Friday, December 1

3:30–5:00 PM

### SIG | Dietary Therapies for Epilepsy: Looking to the Future – Enhancements and Personalization

Convention Center, W311 A, Level 3

#### Overview

Dietary therapies have been around for over 100 years, but have seen increasing utilization and acceptance as they have become more mainstream over the last several years. While dietary therapies can be very effective for epilepsy, we need to work towards improved adherence rates. There are many products and options available for enhancing and personalizing ketogenic therapies, but it is not always obvious which should be considered for an individual patient. Factors such as safety, effectiveness, comorbidities and patient preferences need to be considered when moving outside of traditional dietary therapy.

This session discusses the future of dietary therapies for epilepsy including creative ways to enhance and personalize dietary therapies to improve long-term adherence and increase effectiveness while taking a patient-centered approach. We also discuss exciting research updates from the Global Symposium on Ketogenic Therapies. New this year is the inclusion of a patient perspective, along with expert speakers who will provide clinical and research updates and advances. This SIG includes brief lectures and case-based presentations along with a moderated panel discussion with plenty of time for attendee participation.

#### Learning Objectives

Following participation in this activity, participants will be able to:

- Identify situations where patients may benefit from dietary therapy enhancement and/or personalization
- Describe common dietary therapy enhancements, when it may be appropriate to put these into clinical practice, and how to implement them
- Discuss the latest dietary therapies research updates

**Chair:** Elizabeth Felton, MD, PhD, FAES

**Vice Chair:** Christine Wheeler, MS, RDN, CSP

#### Program

Introduction | Elizabeth Felton, MD, PhD, FAES

Patient Perspective on Ketogenic Therapy | Chanda Linn Gunn

Dietary Therapy Enhancements in Clinical Practice: Overview of Options and Safety | Deana Bonno, MD

Dietary Therapy Enhancements in Clinical Practice: Cases and Personalization | Lisa Vanatta, MS, RDN, CSP

Exciting Research Updates from the Global Symposium on Ketogenic Therapies | Carl Stafstrom, MD, PhD, FAES

Panel Discussion: Dietary Therapies for Epilepsy | Christine Wheeler, MS, RDN, CSP

3:30–5:00 PM

### SIG | Ictal Semiology: Localization of Seizure Onset and Propagation Networks

Convention Center, W415 C/D, Valencia, Level 4

 Digital Select  CME & CE

#### Overview

How to use subjective and observable seizure semiology to construct a hypothesis of localizing seizure onset and propagation network.

This session presents to the audience how to use subjective and observable seizure semiology to localize the seizure onset and propagation network. The format of the session is interactive case discussion. Five cases of typical or unusual seizures are presented. Each presenter presents a case in a video to illustrate seizure semiology. Both panel and audiences are challenged in examining seizure semiology in detail and constructing a hypothesis of localizing seizure onset and propagation network. The presenter gives the final explanation based upon neuroimaging, intracranial EEG and surgical outcome. Brief didactic material is delivered.

#### Learning Objectives

Following participation in this activity, participants will be able to:

- Recognize how seizure semiology can be deftly used to localize seizure onset and propagation networks
- Integrate analyzing the sequences of different semiology features in detail into framework for localizing ictal propagation pathways
- Realize the traps and pitfalls in applying seizure semiology for localizing seizure onset and propagation networks

**Chair:** Felix Rosenow, MD

**Vice Chair:** Hyunmi Kim, MD, PhD, MPH, FAES

#### Program

**Case Presentations:** Felix Rosenow, MD; Michael Fong, MBBS; Margarita Maltseva, MD; Luisa Londono Hurtado, MD; and Hyunmi Kim, MD, PhD, MPH, FAES

#### Education Credit

1.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](https://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

3:30 – 5:00 PM

## SIG | Neonatal Seizures: Seizures in Neonates – Advances in Identification and Management

Convention Center, WF3, Tangerine Ballroom, Level 2



### Overview

Neonatal seizures are difficult to clinically recognize depending on the seizure type. Over the past few years, there have been updates to our knowledge of neonatal seizures. The new neonatal seizure classification has clarified the seizure semiology and included EEG in the definition of neonatal seizures. It has also increased our understanding and heightened the importance of etiology and specific antiseizure treatments.

This SIG discusses the limitations with neonatal seizure understanding, recognition, and treatment. It provides the audience with a basic overview of the current neonatal seizure identification and management plans by providing recent advances in the field to help decrease this gap in knowledge. This SIG informs participants regarding the latest evidence-based management of neonatal seizures and provides a platform for discussion for applying these guidelines in different practice settings while addressing challenges of access to care.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Review the ILAE neonatal classification to quickly identify a seizure, consider etiology, and determine appropriate workup
- Determine which treatment is best for which etiology and how long to continue treatment
- Recognize which babies require EEG monitoring and how long to monitor

**Chair:** Elissa Yozawitz, MD, FAES

**Vice Chair:** Tiffani McDonough, MD

### Program

Review of the ILAE Classification of Seizures and the Epilepsies | Elissa Yozawitz, MD, FAES

How Semiology is Used to Determine Etiology | Magda Nunes, MD, PhD

How to Tailor Treatment in a Neonate | Tristan Sands, MD, PhD, FAES

Who Should We Monitor and for How Long? | Giulia Benedetti, MD

Discussion: Neonatal Seizures | Tiffani McDonough, MD

### Education Credit

1.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](http://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

3:30 – 5:00 PM

## SIG | Neuroendocrinology: The Influence of Sex Hormones on Neuronal Excitability from Mice to Humans

Convention Center, W311 F–H, Level 3



### Overview

There is solid evidence that sex hormones and their neuroactive metabolites modulate neuronal excitability and neural network activity. Despite new breakthrough research findings, the clinical approach does not commonly incorporate consideration of sex hormones when treating seizures. This Neuroendocrinology SIG highlights the necessity of a continuous dialogue between scientists and clinicians to bridge this gap.

This Neuroendocrinology SIG brings together scientists and clinicians, highlighting the importance of considering new research findings on sex hormones when tailoring the patient’s treatment in clinic. The speakers present new animal models and clinical research findings on sex hormone actions that challenge the current dogma on how sex hormones influence neuronal function and offer novel perspectives on how to improve therapeutic options for patients living with epilepsy.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Describe different mechanisms through which progesterone modulates neuronal excitability with both proconvulsant and anticonvulsant effects
- Define the effects of endogenous and exogenous sex hormones on brain function as evidenced by human fMRI studies
- Incorporate considerations for the influence of endogenous and exogenous sex hormones on seizures and antiseizure medications in clinical practice

**Chair:** Catherine Christian-Hinman, PhD

**Vice Chair:** Paula Voinescu, MD, PhD

### Program

Neuroendocrinology Introduction

Learning From fMRI Studies Across the Cycle and in Response to Ovarian Hormone Suppression | Laura Pritschet, BS

## Program | Friday, December 1

Progesterone Receptors and Neuronal Excitability:  
Implications for Seizures and Beyond |  
Suchitra Joshi, PhD, MSc

Personalizing the Therapeutic Approach for Patients  
with Epilepsy at Different Biological Stages to Include the  
Influence of Sex Steroid Hormones |  
Paula Voinescu, MD, PhD

### Education Credit

1.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](https://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

3:30 – 5:00 PM

## SIG | Temporal Lobe Club: Temporal Lobe Epilepsy Across the Lifespan

Convention Center, WF1, Tangerine Ballroom, Level 2

 Digital Select  CME & CE

### Overview

This SIG addresses the variability of TLE in different age groups, based on feedback from last year's SIG which indicated that implications of different age groups should be discussed in a future SIG. It is important to understand the complete spectrum of TLE when deciding on a time and type of treatment. Additionally, in TLE cognitive function, preserving memory function and long-term prevention of comorbidity are important topics. Both the cure from seizures as well as the likelihood to preserve cognitive function should be discussed with the patient's age in mind. Recent knowledge about auto-immune encephalitis causing new onset TLE in otherwise healthy adults, is one example of the etiologies that we will discuss with a specific focus on age. Another is the increased understanding of TLE in the elderly, interactions between dementia and seizures, and its implications for a best possible treatment.

This SIG explores variations of temporal lobe epilepsy across the lifespan. Temporal lobe seizures in young children often result from distinct etiologies, involve specific networks and require early surgical treatment. How does this effect prognosis and cognitive function? In adults, we increasingly understand that disease course depends on etiology. We go back to the question, what can cause epilepsy in an otherwise healthy young adult? Last, we shed light on the elderly population and discuss interactions between seizures, aging and dementia.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Identify specific etiologies of TLE that are common in specific age groups
- Review which age-specific factors influence treatment decisions in TLE
- Describe how TLE affects cognitive function and prognosis in children, young adults, and elderly

**Chair:** Julia Jacobs, MD, FAES

**Vice Chair:** Lara Jehi, MD, MHCDS

### Program

Temporal Lobe Epilepsy Across the Lifespan: A Short Introduction | Julia Jacobs, MD, FAES

Temporal Lobe Epilepsy in Early Childhood and Its Long-term Outcome | Kees PJ Braun, MD, PhD

New Onset Temporal Lobe Epilepsy in Adults: Result of a New Disease or Longstanding Damage? | Lara Jehi, MD, MHCDS

Temporal Lobe Epilepsy in the Aging Brain and Its Connection to Alzheimer's Dementia | Rani Sakis, MD, MSc, FAES

### Education Credit

1.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](https://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

4:00 – 5:30 PM

## Special Lecture | 21st Judith Hoyer Lecture in Epilepsy: Cognitive Comorbidities in Epilepsy: Mechanisms and Potential Therapies

Convention Center, W415 A/B, Valencia, Level 4

*Special Presentations: Distinguished Service Award and Extraordinary Contributions to the Field of Epilepsy Award*

 Digital Select  CME & CE

### Overview

Researchers and Practitioners know little about how neuronal circuit disruptions in epilepsy generate the constellation of symptoms defining epilepsy, including seizures, cognitive dysfunction, depression, and anxiety. Cognitive and affective disruptions have been described by patients as among the most debilitating symptoms of epilepsy. Despite this, we know little about how the neuronal circuit disruptions underlying epilepsy development generate these co-occurring conditions, and even less about how to treat these integral aspects of epilepsy.

Current therapies for epilepsy are anti-seizure drugs, which target seizures only. None are efficacious in treating co-occurring conditions, and some may even exacerbate these symptoms.

In this presentation, neuronal circuits integral in cognition and effect are discussed and examined through the lens of disturbances in these circuits evident in both humans and experimental models of epilepsy. Novel experimental therapies targeting these circuit mechanisms are discussed as potential therapies for cognitive and affective disruptions. Audience members learn information relevant to current and future practice, relevant to mechanisms and treatment of these debilitating co-occurring conditions.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Describe how neuronal circuit disruptions associated with epilepsy contribute to the generation of co-occurring, debilitating symptoms
- Define how knowledge of these mechanisms driving generation of co-occurring symptoms can facilitate development of broader therapies targeting more than seizures
- Describe how new experimental, neuron-specific therapies have significant promise as future directions in epilepsy treatment

**Lecturer: Douglas A. Coulter, PhD, FAES**

### Program

Cognitive Comorbidities in Epilepsy: Mechanisms and Potential Therapies | Douglas A. Coulter, PhD, FAES

### Education Credit

0.75 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](http://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

6:00–7:30 PM

## Basic Science Skills Workshop | Behavioral Analysis and Comorbidities

Convention Center, W230 A/B, Level 2

### Overview

Psychiatric disorders—including depression, anxiety, and related deficits-and cognitive problems—commonly occur in people with epilepsy and often pose complex and challenging comorbidities to recognize and manage. This workshop provides researchers an opportunity to recognize the utility of using different experimental tools and paradigms that can specifically assess learning and memory, anxiety, and depression-like behaviors in animal models of epilepsy.

The introduction focuses on clinical evidence describing the impact that comorbidities such as psychiatric disorders and cognitive problems have in people with epilepsy. Then, the session teaches the audience different ways in which these comorbidities can be assessed in experimental models of epilepsy. The speakers describe study tools and approaches to identify, differentiate, and analyze behaviors associated with cognitive functions and emotional and psychiatric abnormalities in rodent models of epilepsy. The session concludes with a few questions and a conclusion statement.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Implement behavioral paradigms to evaluate learning and memory in rodents
- Recognize behavioral paradigms to evaluate anxiety and depression in rodents
- Develop a battery of tests to study different behavior deficits and their age and sex differences as relevant to epilepsy

**Co-Chairs: Amy Brewster, PhD; and D. Samba Reddy, PhD, RPh, FAES**

### Program

Introduction | Amy Brewster, PhD

Learning and Memory Assessments in Experimental Models of Epilepsy | Farah Lubin, PhD, FAES

Approaches to Ascertain Emotional and Psychiatric Comorbidities in Experimental Models of Epilepsy | Vaishnav Krishnan, MD, PhD, FAES

Conclusions/Panel Discussion | D. Samba Reddy, PhD, RPh, FAES

6:00–7:30 PM

## Basic Science Skills Workshop | Metabolism

Convention Center, W230 C/D, Level 2

### Overview

This session, organized by the basic science committee, brings experts in scientific areas identified as priorities to improve epilepsy research to share technical and scientific expertise. This session focuses on metabolism and metabolic approaches to study epilepsy and how the brain uses energy.

The speakers give context to the session, provide specific approaches that participants can take back to their labs and use, and share exciting new findings relevant to epilepsy research. The session begins with an introduction to metabolic issues in epilepsy, followed by two expert speakers who share cutting-edge brain metabolic approaches.

## Program | Friday, December 1

- Dr. Sun discusses the use of MALDI imaging to understand how the brain uses energy in health and disease
- Dr. Chan discusses multi-omics analyses to study epilepsy

Speakers present scientific and technical approaches and considerations, and extensive discussion follows each speaker.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Evaluate existing metabolomic tools for their usefulness to study epilepsy
- Analyze metabolic changes in epilepsy that contribute to disease pathogenesis
- Be able to apply metabolic tools in your own lab to address scientific questions related to epilepsy

**Co-Chairs: Lena Nguyen, PhD; and Chris Dulla, PhD**

### Program

Introduction to Metabolism and Epilepsy | Lena Nguyen, PhD

Adapting the Next Generation Spatial MultiOmix Workflow for Brain Metabolism Research | Ramon Sun, PhD

Metabolomics in Epilepsy: Study Design, Considerations, and Challenges | Felix Chan, PhD

Panel Discussion | All Faculty

6:00 – 7:30 PM

## SIG | Pregnancy Registries: Updates, Outcomes, and Future Directions

Convention Center, W312 A-C, Level 3



CME & CE

### Overview

Information from pregnancy registries and neurodevelopmental studies often takes many years to be incorporated into guidelines, and thus can delay the most updated care to this vulnerable patient population. This platform is an essential opportunity to bridge this gap in knowledge. Our SIG has the ability to review the information collected in these large, prominent platforms within the last 2 years and present updates that can then be translated to best standards of care for our patients (and their children).

This year's SIG re-focuses on the latest updates from the largest international registries and the most prominent neurodevelopmental studies. This session provides the opportunity for AES attendees to review the constantly evolving data and be able to optimize their treatment and counselling of this vulnerable group of patients.

Our experts are presenting pivotal data on teratogenesis and neurocognitive outcomes related to ASMs which are followed by a moderated panel discussion.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Discuss the latest data on teratogenicity and neurodevelopment outcomes in infants of women with epilepsy
- Analyze the role of machine learning models in the prediction of major congenital malformations for women with epilepsy
- Review the latest literature on folic acid and its use in women with epilepsy and pregnancy

**Chair: Sarita Maturu, DO**

**Vice Chair: Lu Lin, MD, PhD**

### Program

Pregnancy Registries Introduction | Sarita Maturu, DO

Updates from EURAP, the International Antiepileptic Drugs and Pregnancy Registry | Torbjörn Tomson, MD, PhD

Pregnancy Outcome Updates from the North American AED Pregnancy Registry | Sonia Hernandez-Diaz, MD, PhD, MPH

Neurodevelopmental Extension to Malformation Data Collection Initiatives: Update from the EU ConcePTION Study | Rebecca Bromley, PhD

Kerala Registry of Epilepsy and Pregnancy Updates: Machine Learning Model to Predict the Risk of Major Congenital Malformations for Women with Epilepsy Exposed to ASMs | Ramshekhar Menon, MD, MBBS, DNB, DM

Updated Neurocognitive Outcomes Following Antiseizure Medication Exposure from MONEAD | Kimford Meador, MD, FRCPE, FAAN, FAES

### Education Credit

1.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](https://aesnet.org/AES2023) accredited for a complete list of accredited sessions.





6:00–7:30 PM

## SIG | Seizure and Cerebrovascular Disease: Seizure After Stroke: Impact of Antiseizure Medication Prophylaxis and Treatment

Convention Center, W311 B–D, Level 3



### Overview

Acute and/or remote symptomatic seizures occur in approximately 6-8% of patients with ischemic stroke and 15% of patients with intracerebral hemorrhage. These numbers likely underestimate true incidence due to underdiagnosis of non-convulsive seizures, detectable only in the subset of patients undergoing continuous EEG (cEEG) monitoring. Due to limited data and few consensus guidelines, there is widespread variation in attitudes and practice regarding the use of primary and secondary ASM prophylaxis after ischemic or hemorrhagic stroke.

This SIG presents some of the latest national and international research on the topic with the goal of helping neurologists take a more evidence-based approach.

The session showcases three unique research perspectives on the use of primary and secondary antiseizure medication (ASM) prophylaxis after ischemic and hemorrhagic stroke.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Recognize emerging evidence supporting the use of levetiracetam as primary prophylaxis of acute symptomatic seizures after intracerebral hemorrhage in the era of cEEG monitoring
- Describe the impact of ASM prophylaxis on quality and quantity of life following ischemic stroke and intracerebral hemorrhage
- Identify predictors of chronic and long-term ASM use after ischemic and hemorrhagic stroke

**Chair: Matthew Mercuri, MD**

**Vice Chair: Vineet Punia, MD, MS**

### Program

Introduction | Matthew Mercuri, MD

Safety and Efficacy of Prophylactic Levetiracetam for Prevention of Epileptic Seizures in the Acute Phase of Intracerebral Hemorrhage: A Randomized, Double-blind, Placebo-controlled, Phase 3 Trial | Laure Peter-Derex, MD, PhD

Decision Analytical Model to Evaluate the Impact of Antiseizure Medication Prophylaxis on Quality-adjusted Life Years After Ischemic and Hemorrhagic Stroke | Lidia Moura, MD, PhD, MPH

Predictors of Real-world Antiseizure Medication Use in Ischemic and Hemorrhagic Stroke Patients After Hospital Discharge | Vineet Punia, MD, MS

### Education Credit

1.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](http://aesnet.org/AES2023) accredited for a complete list of accredited sessions.

6:00–7:30 PM

## SIG | Sleep in Epilepsy: Broken Sleep in Epileptic Encephalopathy – Challenges for Patients and Caregivers

Convention Center, W311 F–H, Level 3



### Overview

Disruptions of sleep may not only affect how children with severe epilepsy develop or help define the severity of developmental deficits but provide challenges to caregivers and families. The Sleep Epilepsy Workgroup hosts a Moderated Panel presentation that reviews how the pathophysiology of severe epileptic encephalopathies affects normal sleep and circadian function, what role these dysfunctions play in brain development and prognosis, and how disrupted sleep affects patient-caregiver dyads.

This SIG reviews best practices, including behavioral modification, that can provide benefits in health and function of patient-caregiver dyads in patients with epileptic encephalopathy. The session includes the perspectives of patient advocates as well as topic experts. Also included will be:

- The parent lived experience (patient advocate)
- Electrophysiology and disruption of sleep in epileptic encephalopathy – pulmonary physiology and predisposition to sleep disturbance
- Neuropsychology: behavioral modification and family health

### Learning Objectives

Following participation in this activity, participants will be able to:

- Describe disruptions in sleep in patients with epileptic encephalopathy both as a marker of prognosis and as a potential contributor to impaired development
- Recall the difficulties faced by caregivers caused by sleep disruption not only to their children but to their own health
- Recall behavioral or pharmacological approaches to regulate sleep-wake behaviors in the cognitively impaired

# Program | Friday, December 1

**Chair:** Mark Quigg, MD, MSc, FANA, FAES

**Vice Chair:** Milena Pavlova, MD

## Program

Introduction | Mark Quigg, MD, MSc, FANA, FAES

The Parent-lived Experience | Tracy Dixon-Salazar, PhD

Electrophysiology and Disruption of Sleep in Epileptic Encephalopathy | Renée Shellhaas, MD, MS, FAES

Pulmonary Physiology and Predisposition to Sleep Disturbance | Sanjeev Kothare, MD, FAES

Neuropsychology: Behavioral Modification and Family Health | Shannon Brothers, PhD

## Education Credit

1.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](https://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

6:00–7:30 PM

## SIG | Stereoelectroencephalography (sEEG): The sEEG Methodology Applied to Pre-Frontal Epilepsies

Convention Center, WF1, Tangerine Ballroom, Level 2

 Digital Select  CME & CE

### Overview

Pre-frontal epilepsies (PFE) are a highly complex group of frontal lobe epilepsies, poorly understood, but potentially curable with appropriate localization and treatment. PFE are surgical remediated epilepsies that are amenable for stereotaxic explorations using the sEEG methodology. The proposed session has the overreach goal of presenting, in a progressive, practical, and didactic fashion, different basic and clinically relevant aspects of the sEEG method applied to the PFEs.

The speakers actively interact with the audience through a progressive journey, starting with basic conceptual aspects related to anatomy and electroclinical correlations (talks 1 and 2), transitioning to a practical and controversial presentation related to the technical nuances in sEEG implantations and guided surgical approaches related to the topic (talk 3).

### Learning Objectives

Following participation in this activity, participants will be able to:

- Recognize the relevant anatomic-functional aspects associated with pre-frontal epilepsies. The basic aspects of the sEEG methodology will be presented in a dynamic and didactic fashion

- Translate the conceptual and clinical aspects of the sEEG methodology through demonstrations of anatomic-electroclinical correlations applied to pre-frontal epilepsies
- Review the different surgical aspects of sEEG implantation and guided resections. Different clinical scenarios, including lesional/non-lesional case presentations, will be demonstrated

**Chair:** Jorge Gonzalez-Martinez, MD, PhD

**Vice Chair:** Louis Maillard, MD, PhD

## Program

Introduction | Jorge Gonzalez-Martinez, MD, PhD

Anatomic-functional Organization in the Frontal Lobes with Special Emphasis on the Pre-frontal Region | Patrick Chauvel, MD

Electroclinical Correlations in Pre-frontal Epilepsy | Aileen McGonigal, MD, PhD

sEEG Implantations and Guided Resections in Pre-frontal Lobe Epilepsies | Guy McKhann, MD, FAES

## Education Credit

1.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](https://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

6:00–7:30 PM

## SIG | Tuberos Sclerosis Complex (TSC): Epilepsy Surgery for Everyone with Tuberos Sclerosis Complex?

Convention Center, W311 A, Level 3

 CME & CE

### Overview

In Tuberos Sclerosis Complex (TSC), up to 90% of individuals develop epilepsy, two-thirds of those becoming drug-resistant epilepsy. Earlier interventions for epilepsy in TSC may lead to improved outcomes, but epilepsy surgery remains an underutilized intervention in this population. Presence of multiple epileptogenic tubers and complex epileptogenic networks present challenges and clear agreement on who is a candidate for epilepsy surgery can be difficult to attain. Furthermore, access to specialty care and appropriate referrals present barriers that make surgery even more inaccessible to the patients who may be in most need.

TSC represents a model system for epilepsy surgery and one with increasing evidence to suggest that more patients are candidates. Despite this, epilepsy surgery remains an underutilized intervention in TSC. Complex epileptogenic networks, clarity on who is a candidate, and access to care

are some of the barriers that prevent more patients from receiving and benefiting from surgical intervention. This session brings together clinicians and families to share their expertise and experiences through presentations followed by time for interactive discussion with the audience.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Recognize the potential barriers to and impressions of epilepsy surgery in patients with TSC-associated epilepsy
- Outline the methods of epilepsy surgical interventions utilized for patients with TSC and cite the experiences of patients and caregivers
- Describe the principles in selection of patients who may benefit from undergoing epilepsy surgery in TSC and implement accordingly within their own practices

**Chair:** Ryan Gill, MD

**Vice Chair:** Howard Weiner, MD, FAANS, FAAP, FACS, FAES

### Program

Introduction | Ryan Gill, MD

Caregiver Experience of Epilepsy Surgery in Tuberous Sclerosis Complex | Rebecca Carroll

Overcoming Barriers to Epilepsy Surgery in TSC | Brenda Porter, MD, PhD, FAES

The Expanding Landscape of Epilepsy Surgery Options for Children with TSC: Resection, Laser, SEEG, and RNS | Carrie Muh, MD, MS, MHSc, FAANS

Who is a Candidate for Epilepsy Surgery in Tuberous Sclerosis Complex? | James Riviello, MD, FACNS, FNCS, FAES

Closing Remarks: Building Hospitality into the Surgical Epilepsy Experience | Howard Weiner, MD, FAANS, FAAP, FACS, FAES

### Education Credit

1.5 CME

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6:00 – 9:00 PM

### Other Programming | Industry Satellite Symposia

Hyatt Regency Orlando

See page 112 for details and locations.

## Epilepsy and Clinical Neurophysiology Fellowship Match

AES is pleased to be the official sponsor of the epilepsy and clinical neurophysiology match, with the support of the American Clinical Neurophysiology Society (ACNS).

The Match is conducted through the National Residency Matching Program® and the interview process is managed through the Electronic Residency Application System®.

### Important Dates:

The dates for the July 2025 Match appointments are:

- December 6, 2023 Programs may begin reviewing applications
- February 14, 2024 Match opens
- May 17, 2024 Match lists announced
- July 1, 2025 Fellowships begin
- Fall 2024 2026 fellowship cycle begins



Learn more at [aesnet.org/match](https://aesnet.org/match).

# Program | Saturday, December 2

7:00 – 8:30 AM

## Professional Development | Career Skills: Early Career Grants – Insights into Study Section and Next Steps

Convention Center, WF4, Tangerine Ballroom, Level 2

### Overview

Grant application success depends not only on having a good research question, but understanding what to do with a summary statement after your grant has been reviewed. Early career grant applications face the challenge of navigating a complex system without first-hand knowledge of all of the processes that result in the final scoring and summary statement preparation. The speakers cover topics including the roles of the participants in a study section and how they are chosen, as well as the rules of discussion and scoring that occurs.

This session provides practical insight into the logistical steps involved in grant review and what happens after the grant is reviewed, in order to help applicants prepare better grants and successfully resubmit when necessary. Knowing what goes into the preparation of a summary statement and final score will help applicants target issues to be addressed in resubmission. Speakers highlight what to do next after a grant has been reviewed and scored, including how to interpret a summary statement and what to do after receiving a score that is funded or not funded. The session also provides a discussion of the roles of the program officer, SRO, and reviewers in the grant reviewing and scoring processes, as well as a mock study section to highlight key aspects of the review process and how they relate to grant preparation.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Define the role of a program officer, SRO, and reviewers in the study section process
- Identify next steps after receiving a summary statement and who can help you through this process
- Prepare for common application pitfalls identified in study sections

**Co-Chairs: Christa Habela, MD, PhD; and Joaquin Lugo, PhD, FAES**

**Mock Study Section Panelists: Gregory Bergey, MD, FAAN, FANA, FAES; Amy Brooks-Kayal, MD, FAES; Carrie McDonald, PhD, FAES; Brenda Porter, MD, PhD, FAES; and Kevin Staley, MD, FAES**

### Program

Introduction to Study Section – Rules and Roles | Vicky Whittemore, PhD

How to Interpret Your Summary Statement and Next Steps | George Umanah, PhD

Panel Discussion | Moderator: Anny Reyes, PhD

7:00 – 8:30 AM

## SIG | EEG: Should Epileptiform Spikes be Treated in Patients without Seizures?

Convention Center, W230 C/D, Level 2

### Overview

Previous studies have shown that epileptiform discharges (EDs) are relatively common in people with cognitive problems. Often, we assume that something that is commonly seen is normal or insignificant. A growing body of evidence suggests that EDs may disrupt functional brain networks that are responsible for language, behavior, and cognition. One recent study showed that alteration of functional brain networks in children with ASD depends on the existence of EDs. Similarly, recent studies have suggested that cortical hyperexcitability is a contributor to the pathophysiology of AD, and EDs a neurophysiological sign of cortical hyperexcitability. Therefore, there are good theoretical reasons for suppressing EDs in these patient populations with the hope of improving their brain functions. Some ASMs may affect EDs and are associated with improvements in EEG background and cognitive function.

Based on the emerging evidence about the significance of epileptiform spikes that may disrupt functional brain networks, we should rethink our current strategies in clinical practice in ignoring epileptiform spikes in people with no history of seizures. The speakers summarize the evidence related to the studies that describe the significance of epileptiform discharges in the pathophysiologic processes of cognitive problems (e.g., ASD in children and AD in adults). They also discuss how we can appropriately diagnose epileptiform discharges in these patient populations. Finally, they discuss the antiseizure medication drug trials in such conditions.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Describe the frequency of epileptiform abnormalities in people with cognitive problems (e.g., autism spectrum disorders [ASD], Alzheimer's disease [AD])
- Explain the significance of epileptiform spikes in disruption of functional brain networks
- Explain the future directions and research in tackling the significance of epileptiform spikes in disruption of brain networks

**Chair: Rebecca Matthews, MD**

**Vice Chair: Fabio Nascimento, MD**

## Program

Introduction | Rebecca Matthews, MD

Treat the Patient, Not the EEG. Is this Correct? | Ali A. Asadi-Pooya, MD

Effects of Cerebral Electrophysiological (epileptiform) Abnormalities on Cognition and Behavior in Children | Sudha Kessler, MD, MSCE, FAES

Cerebral Electrophysiological (epileptiform) Abnormalities in Adults with Alzheimer's Disease | Krzysztof A. Bujarski, MD

An Overview of Antiseizure Medication Drug Trials in Such Conditions and Directions for Future Research | Michael Sperling, MD, FAES

7:00–8:30 AM

## SIG | Pediatric Epilepsy Case Discussions: Difficult Discussions in the Pediatric Epilepsy Clinic

Convention Center, WF3, Tangerine Ballroom, Level 2



### Overview

Challenging conversations with patients and families occur every day in the pediatric epilepsy clinic. Providers often struggle with the best way to address these topics. The difficulties may arise from the seriousness of the conversation, lack of comfort by the provider in discussing sensitive topics or hesitancy of the family to discuss these topics. Even though these topics are difficult, they are vital to the wellbeing and care of our patients. Our Pediatric SIG endeavors to give our attendees additional tools and strategies for discussing these difficult topics.

This SIG focuses on three of these difficult topics, including important discussions to have with the teenage girl, discussing sudden unexpected death in epilepsy (SUDEP,) and addressing a non-curative yet beneficial surgical option to a patient and family. Each presenter presents a case and provides tools to best address these topics in the clinic with patients and families.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Discuss important topics related to reproductive health with a teenage girl with epilepsy
- Demonstrate different ways to discuss the important topic of SUDEP with their patients and families
- Review how to propose possible surgical options to their patients and families

**Chair: Sarah Kelley, MD, FAES**

**Vice Chair: Sanjeev Kothare, MD, FAES**

Registrants: Find the most up-to-date information at [aesnet.org/AES2023](http://aesnet.org/AES2023)

## Program

Introduction | Sarah Kelley, MD, FAES

Discussions with a Teenage Girl | Sarah Weatherspoon, MD

Discussing SUDEP with Your Patients and Family | Jojo Yang, MD; and Elizabeth Donner, MD, MSc, FRCPC, FAES

Discussing a Surgical Case with Multifocal Epilepsy | Ahmad Marashly, MD

## Education Credit

1.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](http://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

7:00–8:30 AM

## SIG | Professional Wellness in Epilepsy Care: Of Hearth and Home: Professional Wellness After Hours

Convention Center, W313, Level 3

### Overview

Medical professionals are vulnerable to burnout and profound work stressors. The impact of stressors on clinical practice and work-based strategies for burnout prevention are common topics of discussion. However, the impact of burnout on home life is less frequently discussed but has profound implications for quality of life. With escalating rates of burnout in the clinical community and neurologists among the most vulnerable, professional wellness is of profound importance. Burnout can have a significant impact on the home life of the professional. Sleep health and family support can be rich sources of resilience, but conversely, these can suffer from and feed into burnout as well.

This SIG focuses on describing the impact of burnout on professional wellness at home. Two engaging speakers discuss the impact of stress and burnout on sleep and family, along with strategies to mitigate its impact. This SIG helps attendees understand the bidirectional relationship between sleep and family relationships to burnout and offer them an opportunity to discuss and share their experiences in a supportive environment.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Describe the importance of sleep to the professional and its relationship with burnout
- Discuss the importance of family life to professional wellness and its relationship with burnout
- Identify and implement resilience strategies to protect and strengthen professional wellness at home

## Program | Saturday, December 2

**Chair:** Matthew Luedke, MD, FACNS

**Vice Chair:** Meriem Bensalem-Owen, MD, FACNS, FANA, FAES

### Program

Introduction | Matthew Luedke, MD, FACNS

Sleep Health: Impacts on Cognitive and Physical Performance | Joanna Fong-Isariyawongse, MD, FAES, FAAN

Taking it Home: The Effects of Burnout on Home and Family Life | Timothy Ainger, PhD

7:00–8:30 AM

### SIG | Psychogenic Non-Epileptic Seizures (PNES): Cognitive Impairment in PNES: From Mechanisms to Therapeutic Approaches

Convention Center, WF1, Tangerine Ballroom, Level 2

 Digital Select  CME & CE

#### Overview

Cognitive complaints are frequent in patients with psychogenic nonepileptic seizures (PNES), who usually present with comorbid cognitive complaints. Cognitive deficits in PNES may occur due to similar pathological processes driving functional neurological symptoms and/or be secondary to various other etiologies. More importantly, cognitive impairment interferes significantly with patients' abilities to engage in evidence-based treatment for PNES. If not properly identified and addressed, ongoing cognitive deficits further perpetuate disability in patients with PNES.

This SIG provides improved understanding and practical tools for clinicians involved in the care of patients with PNES to better understand how these cognitive symptoms may develop, improve their early identification and assessment, and develop therapeutic strategies to minimize their functional and clinical impact. This session includes a review of updated assessment tools to identify and characterize cognitive deficits and understand their functional impact. Various etiological mechanisms behind cognitive impairment in PNES are discussed. Finally, therapeutic approaches to address cognitive symptoms in PNES are proposed.

#### Learning Objectives

Following participation in this activity, participants will be able to:

- Explain the various pathological mechanisms behind cognitive deficits in PNES
- Recommend or implement the use of validated tools to better identify and characterize cognitive symptoms in PNES
- Develop a therapeutic plan that addresses treatment-interfering cognitive deficits effectively

**Chair:** Gaston Baslet, MD, FAES

**Vice Chair:** Benjamin Tolchin, MD, MS, FAES

### Program

Introduction | Benjamin Tolchin, MD, MS, FAAN

The Scope of the Problem: Impact of Cognitive Impairment in PNES and Nosological Considerations | Gaston Baslet, MD, FAES

Assessment of Cognitive Deficits in PNES | Ryan Van Patten, PhD

Etiological Mechanisms Behind Cognitive Impairment in PNES | Daniel Drane, PhD, FAES

Therapeutic Approach to Cognitive Symptoms in PNES | Lauren Bolden, PhD

### Education Credit

1.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](https://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

7:00–8:30 AM

### SIG | SUDEP: Sudden Unexpected Death in Epilepsy (SUDEP) from the Top Down

Convention Center, W311 F–H, Level 3

 CME

#### Overview

Sudden Unexpected Death in Epilepsy (SUDEP) is likely multifactorial, and the various causative factors can be imagined as forming a pyramid. In this session we look at SUDEP from the top to the bottom of this etiological pyramid. Starting at the top of the pyramid, we examine how cortical seizures can activate brainstem networks leading to more widespread neurological and cardiorespiratory effects that increase SUDEP risk. Moving down the pyramid, we then explore the role of genetic modifiers in modulating SUDEP risk. Finally, at the base of the pyramid, we consider the contribution of the socioeconomic disparities on SUDEP risk.

In this session we look at SUDEP from the “top” on down—from mechanisms that might extend seizure effects throughout the brain to the role of socioeconomic disparities on SUDEP risk. We bring together clinical and basic scientists from diverse backgrounds spanning epilepsy research. The presentations compose the first section (four 15-min talks/5 min Q&A) and set the stage for a concluding 10-min panel discussion. The discussion is prompted by a set of questions the moderators share with the panelists in advance and by questions from the audience.

## Learning Objectives

Following participation in this activity, participants will be able to:

- Describe how cortical activation can lead to brainstem inactivation and increased SUDEP risk Identify how genetic modifiers can modulate SUDEP risk
- Describe the role of healthcare disparities and SUDEP risk

**Chair: William Nobis, MD, PhD**

**Vice Chair: Nuria Lacuey Lecumberri, MD, PhD, FAES**

## Program

Introduction to SUDEP from the Top Down | William Nobis, MD, PhD

Cortical Spreading Depression | Isamu Aiba, PhD

Cortical and Forebrain Imaging Markers of SUDEP | Beate Diehl, MD, PhD, FRCP

Genetic Modifiers of SUDEP Risk | Bin Gu, PhD

Health Disparities and SUDEP Risk | Daniel Friedman, MD, FAES

Discussion SUDEP | Nuria Lacuey Lecumberri, MD, PhD, FAES

## Education Credit

1.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](http://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

8:00 AM – 6:00 PM

## Skills Workshop | Epilepsy Surgery Workshop: Techniques and Clinical Scenarios

Convention Center, W331 A, Level 3

### Additional Fee

In the field of epilepsy, there is a lack of knowledge related to epilepsy surgery techniques. This workshop addresses this lack of knowledge by reviewing technical details, indications, limitations, and safety profiles related to the most common surgical procedures associated with medically refractory epilepsy.

In this full-day practical workshop, epilepsy surgeons discuss and illustrate different surgical techniques and approaches related to epilepsy surgery followed by hands-on practice at teaching stations. Topics include temporal lobe surgeries, extra-temporal resections, invasive monitoring methods, and hemispheric surgeries.

## Learning Objectives

Upon completion of this course, participants will be able to:

- Describe surgical techniques applied in medically refractory epilepsy in a practical way
- Identify nuances of different epilepsy surgical techniques
- Recognize collaboration between epileptologists and surgeons for optimal management of surgical patients

## Program

**Chairs: Jorge Gonzalez-Martinez, MD, PhD; Arthur Cukiert, MD, PhD; and Guy McKhann, MD, FAES**

### Module 1: Temporal Lobe Epilepsy Scenario

Temporal Resections |

Mario Arturo Alonso Vanegas, MD, FAES

Selective MT Resection | Kris Smith, MD

LITT | Jon Willie, MD, PhD, FAANS

Lesional Versus Non-Lesional Resections | Guy McKhann, MD, FAES

Discussion

Hands-on Workstations

### Module 2: Extra-temporal Epilepsy Scenario

Frontal Resections | Arthur Cukiert, MD, PhD

Posterior Quadrant Surgery |

Chima Oliugbo, MD, FRCS, FAANS

Rolandic Resections | Jorge Gonzalez-Martinez, MD, PhD

Perisylvian Polimicrogyria Surgery | John Ralston, MD, PhD

Discussion

Hands-on Workstations

### Module 3: Stereotactic Methods and Invasive Monitoring Applications

SEEG | Eyiyesi Damisah, MD

Responsive Nerve Stimulator |

Sameer Sheth, MD, PhD, FAANS

Deep Brain Stimulation | Robert Gross, MD, PhD, FAANS

Surgery in Tuberos Sclerosis | Howard Weiner, MD

Discussion

Hands-on Teaching Stations

### Module 4: Hemispheric Surgeries and Disconnections

Hemispherotomy-Perisylvian Technique |

Helio Machado, MD

Hemispherotomy-Vertical Technique |

Christian Dorfer, MD

Callosotomies | Taylor Abel, MD, FAES

Surgical Approaches for Failures in Hemispheric Surgery | Aria Fallah, MD, MSc, FRCS, FAANS, FAAP

Discussion

Hands-on Teaching Stations

## Program | Saturday, December 2

8:45 – 11:45 AM

### Presidential Symposium | At the Cutting Edge: Epilepsy Therapies in 2023 and Beyond

Convention Center, W415 A/B, Valencia, Level 4

*Special Presentations: ILAE President's Update, Fritz E. Dreifuss Award*

 Digital Select  CME & CE

#### Overview

Diverse novel therapies developed in the laboratory are now on the horizon for people with epilepsy. Epilepsy therapies have a rich history evolving from diets and drugs to gene-based approaches and implantable devices. Genetic approaches in rare epilepsy syndromes, such as Dravet Syndrome, have progressed at a rapid pace to advance innovative therapies that target DNA and RNA regulation. Metabolic- and epigenetics-based therapeutic approaches are evolving for epilepsy and its comorbidities. Responsive neurostimulation and other neuromodulation modalities for drug-resistant epilepsy are now understood to have effects that depend on brain networks. Cell-based therapies developed in animal models are being tested in the clinic.

The goal of this symposium is highlighting the evolution of future cutting-edge therapeutic approaches for the epilepsies. These therapeutic approaches offer hope but face challenges in their journey to patients. The critical need for these therapies, as well as challenges and successes in their development, translation, clinical testing, and accessibility by patients, are the topics of this symposium. A view from the clinic emphasizes the need for better therapies to control the many facets of the syndromes patients and their families face. These cutting-edge approaches also pave the way for a future that harnesses the therapeutic capabilities of the gut microbiome and artificial intelligence, while raising challenges such as their equitable access by all patient populations.

#### Learning Objectives

Following participation in this activity, participants will be able to:

- Describe the rationale and mechanistic basis of therapies in the pipeline
- Apply this understanding in choice of therapy by balancing benefits and risks
- Integrate the knowledge from new therapeutic approaches into future clinical care of patients

**Co-Chairs: Manisha Patel, PhD, FAES; and Daniel Lowenstein, MD**

#### Program

Introduction | Manisha Patel, PhD, FAES

A View from the Clinic: Need for Better Treatments | Kelly Knupp, MD, FAES, Fritz E. Dreifuss Award

Gene Therapies: From Pathogenic Mechanisms to Targeted Cures | Gemma Carvill, PhD

Epigenetics- and Metabolism-based Therapies: Blending New with the Old | Farah Lubin, PhD, FAES

Cell-based Therapy for No Seizures: No Side Effects in Epilepsy | Robert Hunt, PhD

Neurostimulation Therapy: A Networking Opportunity | Vikram R. Rao, MD, PhD, FAES

Epilepsy Therapies: What Does the Future Hold? | Daniel Lowenstein, MD

Panel Discussion | All Faculty

#### Education Credit

2.75 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](https://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

12:00 – 6:00 PM

### Exhibit Hall

Convention Center, West Hall C, Level 2

12:00 – 6:00 PM

### Poster Session 1

Author Present Time: 12:15 – 2:00 PM

Convention Center, West Hall C, Level 2

#### Overview

Posters are grouped by general topic category at various times throughout the meeting. Poster authors are available for discussion from 12:15 – 2:00 PM.

There are three ways to access abstracts presented during this poster session:

1. Download the AES Annual Meeting app to view uploaded ePosters
2. Pick up the guide to poster abstracts, available in the registration area
3. Visit [aesnet.org/education/annual-meeting/aes-abstractsearch](https://aesnet.org/education/annual-meeting/aes-abstractsearch) for our searchable abstract database

2:30 – 5:00 PM

### Hot Topics Symposium | Health Equity in Vulnerable Populations

Convention Center, W415 A/B, Valencia, Level 4

*Special Presentation: Founders Award*

 Digital Select  CME & CE



2:30 – 5:00 PM

## Scientific Symposium | New Insights on Epileptogenesis and Therapeutic Discovery from Encephalitis-induced Epilepsy Models

Convention Center, W415 C/D, Valencia, Level 4

 Digital Select  CME & CE

### Overview

Roughly 80% of the global burden of epilepsy resides in low and middle income countries (WHO, 2022) and central nervous system (CNS) infections are one of the main risk factors for epilepsy in resource-poor settings. Infectious pathogens of the CNS are an under-recognized driver of the worldwide prevalence of epilepsy. Autoimmune encephalitis is a major cause of temporal lobe epilepsy with hippocampal sclerosis in adults, and occurs when the body's own autoantibodies or immune cells attack the brain. Thus, both infection- and autoimmune-associated encephalitis drive epilepsy risk worldwide. However, the animal models and clinical and preclinical studies to understand the pathological mechanisms underlying encephalitis-induced epilepsy remain insufficient. This is particularly concerning given that recent evidence has revealed that people with COVID-19 infections may present with encephalitis-induced seizures, which may ultimately lead to changes in the global burden of epilepsy.

This session provides insight into the unique benefits of experimental models of encephalitic etiologies. Participants gain new understanding of the contribution of the immune system to seizure initiation and epileptogenesis. Participants identify how increased implementation of encephalitic models of acquired epilepsy may represent a practical solution to reduce the global burden of epilepsy.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Recognize contributions of neuroinflammation and the peripheral immune system signaling on molecular targets associated with encephalitis-induced acquired epilepsy
- Identify implementation strategies for disease-modifying agent discovery using encephalitis models
- Describe the presumed contribution of innate immune responses in seizure initiation and recurrence in autoimmune encephalitis
- Recognize clinical findings associated with neuroinflammation-induced seizures and epilepsy

**Co-Chairs: Melissa Barker-Haliski, PhD; and Jennifer Kearney, PhD, FAES**

### Program

Introduction | Jennifer Kearney, PhD, FAES

Challenges and Opportunities for Therapeutic Discovery using Encephalitis-induced Epilepsy Models | Melissa Barker-Haliski, PhD

### Overview

New legislation has been introduced in many areas of the country that affects access to gender-affirming care, reproductive health, and telehealth / patient access. In addition, ongoing conflicts around the globe create barriers to care for international patients with epilepsy. This session helps providers to understand the effects of these concerns and this legislation on the care of patients with epilepsy so that providers will be better prepared to address their effects on epilepsy patients.

The Hot Topics Symposium focuses on current issues and their impact on the care of patients with epilepsy. This year, the symposium focuses on how new legislation that affects reproductive health care, access to care, and gender-affirming care can potentially affect patients with epilepsy. The symposium addresses the effects of wars and conflicts on epilepsy care around the world.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Describe ways that antiseizure medications can interact with gender-affirming medical care
- Identify unique concerns faced by LGBTQIA+ patients with epilepsy
- Describe strategies to ensure that epilepsy patients in conflict zones and war-affected regions continue to receive appropriate medical treatment
- Identify and describe strategies to improve access to healthcare for patients with epilepsy
- Identify ways that antiseizure medications can potentially affect reproductive health care in women with epilepsy, and how recent policy changes may affect reproductive health care

**Chairs: Suzette LaRoche, MD, FAES; and Sarah Schmitt, MD, FAES**

### Program

Introduction | Suzette LaRoche, MD, FAES

Epilepsy Care in the LGBTQIA+ Population: Unique Challenges | Emily Johnson, MD

Epilepsy in Conflict Zones and War Affected Regions | Olga Taraschenko, MD, PhD, FAES

Access to Epilepsy Care in the Post Pandemic Era | Jonathan Edwards, MD, MBA

Navigating Reproductive Health Care in a Changing Political Landscape | Caryn Dutton, MD

Panel Discussion | Sarah Schmitt, MD, FAES; Naymee Velez-Ruiz, MD, FAES; Hind Kettani, MD; and All Faculty

### Education Credit

2.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](https://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

Registrants: Find the most up-to-date information at [aesnet.org/AES2023](https://aesnet.org/AES2023)

[www.aesnet.org](https://www.aesnet.org)

## Program | Saturday, December 2

Brain Infiltrating Macrophages in the Onset of Viral Infection-induced Seizures | Ana Beatriz DePaula-Silva, PhD

Development of Perineuronal Nets (PNNs) in the Dentate Gyrus in the Theiler's Virus Mouse Model of Infection-induced Epilepsy | Harald Sontheimer, PhD

Neuro-immune Interactions in Autoimmune-associated Epilepsies and New Therapeutic Strategies | Julika Pitsch, PhD

NORSE (New Onset Refractory Status Epilepticus) and FIRES (Febrile Infection-related Epilepsy Syndrome) | Lawrence Hirsch, MD, FAAN, FACNS, FANA, FAES

Clinical Findings from Critically Ill Patients Infected with SARS-CoV2 | Aristeia Galanopoulou, MD, PhD, FAES

Panel Discussion | All Faculty

### Education Credit

2.5 CME

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2:45 – 5:00 PM

### Platform A | Basic Mechanisms

Convention Center, W311 B–D, Level 3

**Moderators: Mohamad Mikati, MD; and Sara Eyal, PhD, FAES**

### Platform B | Neurophysiology

Convention Center, W311 F–H, Level 3

**Moderators: Elaine Kobayashi, MD, PhD; and William Stacey, MD, PhD, FAES**

### Platform C | Clinical Research

Convention Center, W312 A–C, Level 3

**Moderators: Stephanie Auvin, MD, PhD; and Lisa Garrity, PharmD**

There are three concurrent sessions of selected key scientific abstracts. Authors present a 10-minute overview of their work followed by a five-minute Q&A session.

See page 42 for full platform listing.

5:30 – 7:00 PM

### Investigators Workshop (IW) | How Targeting Adult Hippocampal Neurogenesis Can Reduce Seizures

Convention Center, W230 C/D, Level 2

### Overview

Adult hippocampal neurogenesis is a process by which the division of neural stem cells (NSCs) keep generating functional neurons and glia in the hippocampal dentate gyrus (DG). Adult neurogenesis plays a critical role in hippocampal-dependent functions and can impact memory formation, anxiety, and depression. Pathological conditions such as epilepsy, stroke, and traumatic brain injury can dysregulate adult hippocampal neurogenesis in several ways.

There has been a lot of progress in understanding the role of neurogenesis in epileptogenesis since the last workshop in 2020. This workshop presents information on our current understanding of neurogenesis and how new therapies that target neurogenesis may reduce epilepsy and associated comorbidities. The goal of this workshop is to elucidate the role of NSCs and neurogenesis in acute seizures, chronic epilepsy, behavioral comorbidities in models of epilepsy, and how targeting the process of neurogenesis could inhibit epilepsy and behavioral comorbidities.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Understand the potential role of neurogenesis in epileptogenesis and in mesial temporal lobe epilepsy
- Recognize the biomarkers of neurogenesis and their alterations in human tissue in mouse models of mesial temporal lobe epilepsy and Dravet syndrome
- Gain understanding of how silencing aberrant adult-born granule cells in a mouse model of temporal lobe epilepsy during a critical period restores many of the morphological changes

### Program

**Moderator: Joaquin N. Lugo, PhD, FAES**

**Speakers: Michael Bonaguidi, PhD; Juanma Encinas, PhD; and Jenny Hsieh, PhD**

5:30 – 7:00 PM

### Investigators Workshop (IW) | Mapping Brain Networks in Epilepsy: To Stimulation Targets – and Back Again

Convention Center, WF4, Tangerine Ballroom, Level 2

### Overview

Epilepsy is understood as a brain network disease. However, mapping the location of brain networks involved in epilepsy and translating these into therapeutic targets is challenging. The adoption of network neuroscience in epilepsy research is critical to generate effective neuromodulation treatments. Identifying the exact location of networks involved in epilepsy is actively being researched and may lead to new or refined therapeutic targets.

This workshop presents recent advances and tools for network mapping and translational research that benefits



clinicians and researchers alike in their quest to localize and modulate epilepsy networks to provide seizure relief in patients with drug-resistant epilepsy. In this session, we bridge the gap between neuroimaging research on large-scale brain networks involved in epilepsy and their clinical translation into new or refined therapeutic targets. We outline clinical tools to identify the location of atrophy and lesions associated with epilepsy and showcase how brain network mapping techniques can improve therapeutic targets in epilepsy. Finally, we discuss recent evidence on both 'where' and 'when' to modulate brain networks in epilepsy.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Describe novel clinical tools and brain network mapping techniques that can be used to (1) map the locations of atrophy and lesions in patients with epilepsy, and (2) identify the brain networks that are connected to each atrophy or lesion location
- Demonstrate how the tools introduced in Learning Objective 1 can be leveraged to identify and refine brain stimulation targets for optimal therapeutic relief in drug-resistant epilepsy
- Discuss (1) the 'where' and 'when' to modulate for responsive neurostimulation in epilepsy, and (2) the benefits and current challenges of translating epilepsy networks into therapeutic targets for epilepsy

### Program

**Moderators:** Sara Larivière, PhD; and Robert Fisher, MD, PhD, FAES

**Speakers:** Jessica Royer, PsyD; Frédéric Schaper, MD, PhD; and Daria Anderson, PhD

5:30–7:00 PM

## Investigators Workshop (IW) | Precision Medicine in Focal Epilepsies: From Novel Pathways to New Therapies

Convention Center, W230, A/B, Level 2

### Overview

Although it is well-established that post-zygotic mutations (i.e., somatic variants) in mTOR pathway somatic variants cause focal cortical dysplasia, recent findings highlight Ras-MAPK somatic variants in mesial temporal lobe epilepsy. Recent work has shown that non-lesional focal epilepsies, including mesial temporal lobe epilepsy, may also be attributed to somatic variation, therefore significantly expanding the potential clinical impact of somatic variants. Additionally, over the past year, there have been major breakthroughs in both minimally invasive diagnostics, as well as novel targeted therapeutic options for somatic mutation-mediated focal epilepsies that could change the landscape of clinical care for drug-resistant focal epilepsies.

Since most somatic variants in focal epilepsies are in

pharmacologically targetable gene pathways, precision therapies are warranted. This workshop provides an overview of the somatic genetics of focal epilepsies, including novel gene pathways; it highlights innovative approaches for presurgical diagnosis of somatic variants; and finally, it describes efforts to develop pertinent preclinical models of somatic mosaicism and feature new precision medicine strategies for treating focal epilepsies caused by somatic variants. Most topics in this workshop have not been presented at AES before and represent major conceptual and methodological innovations.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Recognize somatic variants as a major cause of focal epilepsies and identify the most common gene pathways involved in focal epilepsy pathogenesis
- Describe minimally invasive approaches for presurgical diagnosis of somatic variants
- Summarize strategies for modeling and treating focal epilepsies caused by somatic variants

### Program

**Moderators:** Sattar Khoshkhoo, MD; and Stéphanie Baulac, PhD

**Speakers:** Sattar Khoshkhoo, MD; Michael Hildebrand, PhD; Mauro Costa-Mattioli, PhD; and Sneham Tiwari, PhD

5:30–7:00 PM

## Investigators Workshop (IW) | When Epilepsy Treatments Fail: Palliative and Rehabilitative Approaches

Convention Center, WF3, Tangerine Ballroom, Level 2

### Overview

Despite advances in treatment, not all epilepsy can be cured. Sometimes cure comes only at the risk of major morbidity, such as paresis or excessive sedation. These realities are difficult to accept, not only for patients, but for providers. Ongoing seizures interfere with pursuing life goals and can lead to stagnation and frustration. Furthermore, refractory seizures can feel like failure for providers and patients. Not enough attention or education is focused on support beyond seizure control and related stressors for patients, caregivers, and providers. The goal of our workshop is to address these gaps and develop options for all involved.

Treatment-resistant seizures are a huge burden on a patient's life, requiring coping skills addressing physical and psychosocial effects of uncontrolled epilepsy. Supportive-neuropalliative care (PC) is a branch of palliative medicine aiming to alleviate suffering in patients with chronic neurological diseases. PC has also been developing strategies helping medical providers cope with stress and frustration. Rehabilitation medicine has expanded

## Program | Saturday, December 2

care for epilepsy patients. Both approaches provide tools supporting epilepsy patients and their physicians without having-seizure freedom as the only goal. This workshop focuses on how these services can be integrated into the care of patients with complex uncontrolled epilepsy.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Discuss current knowledge of emotional and psychosocial challenges faced by persons with drug-resistant epilepsy and how failure of medical and surgical treatment may affect patients and medical providers
- Describe how supportive-neuropalliative care approaches are employed in chronic illness, and how they could be used for adults and children with treatment-resistant epilepsy and their medical providers
- Identify supportive-neuropalliative and rehabilitative methods, and on-line support networks that can be employed for persons with drug-resistant epilepsy in both pre-operative or post-operative stages in adults and children

### Program

**Moderators:** Cornelia Drees, MD, FAES; and Barbara Jobst, MD, PhD, FAAN, FAES

**Speakers:** Cornelia Drees, MD, FAES; Joyce Tam, MD; Christina M. Vaughan, MD; and Sophia Varadkar, MD, PhD, MRCPI

5:30–7:00 PM

## SIG | Critical Care: Advances in EEG and Multimodal Neuro-monitoring for Seizures in the ICU

Convention Center, W415 C/D, Valencia, Level 4

 Digital Select  CME & CE

### Overview

Many clinicians working in the critical care setting are still unfamiliar with the possibilities offered by the use of quantitative EEG and multi-modality monitoring for the screening, detection and management of seizures. The use of these tools can aid in the management of high complexity patients, in the efficiency and satisfaction of the critical care team and in the overall functional outcomes of patients under their care.

The field of neuro-monitoring for seizures in the critical care settings continues to evolve. Recent advances and controversies in the use of quantitative EEG, multi-modality monitoring and recently described potential prognostic markers in the EEG of patients suffering cardiac arrest pose new opportunities and challenges to clinicians working in the Critical Care setting. This session starts with a young investigator's Blitz presenting high-rated abstracts related to Critical Care Epilepsy followed by 3 Lectures by well

recognized experts and an interactive panel discussion between the panel and audience.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Discuss the use of quantitative EEG for the management of seizures in the critical care environment
- Describe the simultaneous use of multiple and novel monitoring technologies in the management of seizures in the ICU
- Identify recently described EEG patterns seen in patients post-cardiac arrest and discuss their clinical significance

**Chair:** Adriana Bermeo-Ovalle, MD, FAES

**Vice Chair:** Sahar Zafar, MD, MBBS

### Program

**Introduction |** Adriana Bermeo-Ovalle, MD, FACNS, FAES

**Critical Care Blitz Presentation: EEG Features to Predict Electrographic Seizures and Mortality in the Pediatric Intensive Care Unit |** Ersida Buraniqui, MD

**Critical Care Blitz Presentation: Myoclonus after Cardiac Arrest did not Correlate with Cortical Response on Somatosensory Evoked Potentials |** Adriana Koek, MD

**Quantitative EEG for Seizure Screening, Detection and Management |** Christa Swisher, MD

**Multimodal Neuro-monitoring for Seizure Management in the ICU |** Clio Rubinos, MD

**What's New in the EEG of Cardiac Arrest |** Jong Woo Lee, MD, PhD, FAES

### Education Credit

1.5 CME

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5:30–7:00 PM

## SIG | Epilepsy Surgery: Homunculus Revisited – Managing Central Lobe Epilepsies

Convention Center, W311 F–H, Level 3

### Overview

Surgery for focal epilepsy near the central sulcus remains a challenge due to high potential for morbidity. Penfield's map of the motor cortex "homunculus" based on superficial direct electrical stimulation is canonical but incomplete. Recent application of 3-dimensional approaches (e.g., resting-state functional MRI, stereoelectroencephalography, and white matter stimulation) have indicated unexpected association areas and language function in precentral gyrus, indicating a need for reappraisal of functional maps.

Likewise, newer surgical approaches such as focal thermal ablation and neuromodulation are increasingly utilized in eloquent regions, but questions about optimal approaches, safety, and effectiveness remain.

A moderated panel of epilepsy surgeons presents updates on the evolving surgical approaches to focal epilepsy localized to the central lobe.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Define an updated view of the functional organization of the central lobe
- Describe the relative roles of open surgery versus focal thermal ablation in the central lobe
- DList the potential cortical and subcortical targets and approaches to neuromodulation of central lobe epilepsies

**Chair: Jon Willie, MD, PhD, FAANS**

**Vice Chair: Chima Oluigbo, MD, FAES**

### Program

Homunculus Interruptus: Challenges to the Classic View of Human Motor Cortex Organization | Kai Miller, MD, PhD

The Role of Resection and Ablation Strategies Surgery in the Management of Motor and Central Lobe Epilepsies | Jeffrey Blount, MD, FAANS, FAES

Neuromodulation for Motor and Central Lobe Epilepsies: Cortical versus Subcortical Stimulation | Rushna Ali, MD

Panel Discussion | All Faculty

5:30–7:00 PM

## SIG | Practice Management: Optimizing Your Practice, Getting the Time and Resources You Deserve

Convention Center, W311 A, Level 3

### Overview

Comprehensive epilepsy care requires specialized services and a multidisciplinary team. While clinicians understand the resources needed to elevate patient care, growing epilepsy programs often face challenges in funding. Further, clinicians are not provided with the tools to navigate the complex financial and administrative landscape of healthcare. Past Practice Management Special Interest Groups have outlined resource utilization from an operations standpoint. Audience members have consistently expressed difficulty obtaining funding for such resources in the first place.

This SIG provides clinicians with tools to successfully partner with administrators and obtain the resources and support needed to provide patients with the highest level of care. The speakers in this diverse panel address how to obtain funding for three critical elements of a thriving epilepsy practice: ample clinic time, subspecialty clinic services, and EEG reviewers.

Registrants: Find the most up-to-date information at [aesnet.org/AES2023](https://aesnet.org/AES2023)

As always, this SIG remains unique with a focus on successful programs, overcoming obstacles, financial sustainability and outcome measures with support from the literature.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Recognize the landscape administrators navigate so that they can more effectively form partnerships with them
- Utilize revenue cycle to determine the downstream financial impact of clinical resources
- Describe three success stories brought about by effective partnerships between clinicians and administrators

**Chair: Rani Singh, MD**

**Vice Chair: Meghan Ward, MD, FAES**

### Program

Introduction | Rani Singh, MD

What Do My Administrators Truly Care About? | Sanjay Singh, MD, FAAN, FANA

Securing FTEs to Support Your Clinical Practice | Laura Strom, MD, FAES

Getting the Time You Deserve with Your Clinic Patients | Nancy McNamara, MD

Securing EEG Tech Reviewers to Support Your Long-term Monitoring Service | Brian Cabaniss, MD

5:30–7:00 PM

## SIG | Women's Issues in Epilepsy: Controversies in Caring for Women with Epilepsy

Convention Center, WF1, Tangerine Ballroom, Level 2

 Digital Select  CME & CE

### Overview

This SIG addresses the controversial decisions health care providers face when caring for women with epilepsy. Due to the complex interactions between anti-seizure medications and steroid hormones (relevant to pregnancy and contraception), and balancing seizure control with teratogenicity and/or neonatal outcomes, there are often variable ways to approach patient management. There is a paucity of data surrounding newer anti-seizure medications and how they may affect women's health, especially during pregnancy. By having an expert panel share their perspective on four difficult cases, we hope to highlight consensus opinions that will help others manage their future patients. As we continue to build patient registries and develop data driven policies, expert opinion and active discussion between leaders in the field will help guide us to make the best decisions for our patients. This session discusses controversies in caring for women with epilepsy.

## Program | Saturday, December 2

We present four cases addressing different controversial topics that arise when caring for women with epilepsy. An expert panel has the opportunity to respond to each case with their opinion about how they would counsel the patient and / or manage the particular case. The audience is encouraged to participate to generate discussion on these difficult cases that often do not have a single correct answer. Topics addressed include medication management in pregnancy, choosing contraception methods in young women, and breastfeeding while taking antiseizure medications.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Make management decisions regarding antiseizure medications in pregnancy, specifically weighing pros and cons of seizure control with polypharmacy and medications with higher or unknown teratogenicity
- Delineate how different contraceptives interact with antiseizure medication and affect seizure control, and antiseizure medications that can make certain contraception fail
- Describe the existing data regarding breastfeeding while on antiseizure medication and be able to counsel post-partum women on this issue

**Chair:** Rachael Benson, MD

**Vice Chair:** Mona Sazgar, MD, FAES

**Panelists:** Esther Bui, MD, FRCPC; Piero Perucca, MD, PhD, FRACP; Page Pennell, MD, FAES; Patricia Penovich, MD, FAES; and Paula Voinescu, MD, PhD

### Program

Case 1: Polypharmacy in Pregnancy | Rachael Benson, MD

Case 2: Valproic Acid in Pregnancy | Mona Sazgar, MD, FAES

Case 3: Contraception Choice in Young Women with Epilepsy | Rachael Benson, MD

Case 4: Breastfeeding and Polypharmacy | Mona Sazgar, MD, FAES

### Education Credit

1.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](https://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

5:30–8:00 PM

## Special Lecture | Epilepsy Research Benchmarks Dialogue: Emerging Science and Next Steps in Research to Prevent Epilepsy and its Progression

Convention Center, WF2, Tangerine Ballroom, Level 2

### Overview

Where has the epilepsy field been and where is it going regarding epileptogenesis, post-traumatic epilepsy and biomarkers, and gene therapy? Attend this session and be a part of the conversation. This interactive session led by the AES Epilepsy Research Benchmarks Stewards Committee explores research related to preventing epilepsy and its progression. Speakers give short presentations highlighting the latest in science and emerging opportunities, followed by an open session discussing the challenges stakeholders face in researching these topics, a session in which the speakers and moderators engage with the audience in order to forge research priorities together.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Discuss different aspects of the Epilepsy Research Benchmarks and emerging priorities for preventing epilepsy and its progression
- Recognize research challenges related to epileptogenesis, gene therapy, and biomarkers for post-traumatic epilepsy
- Describe the importance of advancing health equity and promoting patient engagement in research

**Co-Chairs:** Wayne Frankel, PhD; and Gregory Worrell, MD, PhD

### Program

Introduction | Wayne Frankel, PhD

Initial Experiences in Gene Therapy Trial for Dravet Syndrome | Susie Luebke, BSN, RN

Lessons Learned in Gene Therapy from Other Neurological Diseases | Allison Bradbury, PhD

New Ways to Think About Epileptogenesis | Viji Santhakumar, PhD

Biomarkers for Post-traumatic Epilepsy | Terence O'Brien, MD, FRACP, FAES

Panel Discussion | All Faculty

6:00–9:00 PM

## Other Programming | Industry Satellite Symposia

Hyatt Regency Orlando

See page 112 for details and locations.



7:45 – 8:15 AM

## American Epilepsy Society Annual Business Meeting

Hyatt Regency, Orlando Ballroom, Convention Level

*Open to AES Members only*

**AES Members:** Join us for reflections and updates from AES President, Manisha N. Patel, PhD, FAES, on the essential business of the Society. Learn about recent accomplishments, changes, financials, and more.

8:00 AM – 5:00 PM

## Other Programming | Scientific Exhibits

Convention Center

See page 111 for locations and other details.

8:45 – 10:15 AM

## Investigators Workshop (IW) | Artificial Intelligence in Epilepsy: Real-world Clinical Applications

Convention Center, WF3, Tangerine Ballroom, Level 2

### Overview

Artificial intelligence (AI) is a rapidly evolving field with the potential to transform many aspects of healthcare, including the management of epilepsy, and has the potential to revolutionize the care of people with epilepsy. This workshop covers a range of real-world clinical applications of AI in epilepsy, including currently existing, incipient, and future methods.

This workshop explores the real-world clinical applications of AI in epilepsy, highlighting the ways in which these technologies can be used to benefit patients and healthcare providers, including existing, incipient, and future methods. By examining the potential benefits and limitations of AI in epilepsy care, and considering strategies for integrating these technologies into clinical practice, the workshop provides valuable insights for researchers and practitioners working in this area. Topics include seizure forecasting; automatic seizure detection; the use of big data to gain insights into epilepsy and its treatment; and the prediction of clinical trajectories based on clinical, neurophysiological, and neuroimaging data. It examines potential benefits and challenges for further integration of these technologies into clinical practice, as well as the ethical issues that arise from their implementation.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Identify specific aspects of patient care that allow for potential integration of real-world clinical applications of artificial intelligence in epilepsy
- Evaluate the potential benefits and limitations of using artificial intelligence in epilepsy care, including its impact on patient outcomes and the challenges associated with implementing these technologies in clinical practice
- Develop strategies for integrating AI into epilepsy care, taking into account considerations such as patient needs, clinical evidence, regulatory requirements, and ethical implications

### Program

**Moderators:** Ezequiel Gleichgerrcht, MD, PhD; and Leonardo Bonilha, MD, PhD

**Speakers:** Samaneh Nasiri, PhD; Samden Lhatoo, MD, FRCP; and Mark Cook, MD, MBBS, FRACP, FRCP, FAHMS

8:45 – 10:15 AM

## Investigators Workshop (IW) | Epilepsy and the Aging Brain

Convention Center, W230 A/B, Level 2

### Overview

The US population is aging – by 2040, it is projected that more than 20% of the population will be over the age of 65. Moreover, the older population is itself becoming older. Thus, the intersection of aging and epilepsy is of growing interest. Given the growing aging population, and the increasing appreciation of epilepsy as a co-morbidity of aging, this session will be of broad interest to the basic and clinical epilepsy communities.

This workshop presents a different angle on epilepsy and aging by addressing both drug screening and cellular mechanisms. It addresses basic mechanisms at the intersection of aging and epilepsy, as well the following questions: (1) Why does the aged brain display a heightened risk of epilepsy? (2) How does the aged brain respond to antiseizure medications? and (3) How does epilepsy impact the processes of brain aging?

### Learning Objectives

Following participation in this activity, participants will be able to:

- Describe evidence for differential sensitivity to antiseizure medications in mouse models of Alzheimer's disease
- Recognize the role of aged perivascular astrocytes in modulating glutamate and potassium clearance in the aged brain
- Understand the role of senescent microglia in epileptogenesis

# Program | Sunday, December 3

## Program

**Moderator:** Patrick A. Forcelli, PhD

**Speakers:** Chris Dulla, PhD; Tahiyana Khan, BS; and Kevin Knox, BS

8:45 – 10:15 AM

## Investigators Workshop (IW) | Novel Therapeutic Strategies for Developmental Epilepsies and Comorbidities

Convention Center, WF1, Tangerine Ballroom, Level 2



### Overview

Epilepsies of numerous etiologies are particularly common during the first postnatal years, and those occurring during critical periods of neuronal and circuit development disrupt cellular programs and hippocampal/cortical organizing rhythms that are required for maturation of functional cognitive circuits, with enduring adverse consequences. Importantly, these epilepsies are commonly associated with serious, enduring memory and related cognitive problems. Current knowledge suggests that seizures occurring during critical periods of neuronal and circuit development disrupt cellular programs and hippocampal/cortical organizing rhythms that are required for maturation of functional cognitive circuits. However, we lack a full understanding of these processes and the strategies for prevention, intervention, or mitigation of the deleterious, life-long consequences of early life epilepsies.

This workshop discusses recent and emerging technologies, such as biosensors and the use of closed-loop stimulation, to modulate interictal neural networks in pediatric epilepsy models, the use of transcranial optogenetics during the first week of life to entrain disrupted hippocampal organizing rhythms, and post hoc optogenetic interventions to restore normal hippocampal oscillations and cognitive function after early-life seizures.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Describe neonatal neuronal ensemble activities that are required for the typical, 'healthy' maturation of memory circuits and their functions
- Recognize cutting-edge recording and intervention approaches for preventing epilepsy-related disruption of circuit development
- Identify novel approaches to mitigate developmental epilepsy-related cognitive deficits

## Program

**Moderators:** Tallie Z. Baram, MD, PhD; and Amy Brooks-Kayal, MD, FAES

**Speakers:** Tallie Z. Baram, MD, PhD; Gregory L. Holmes, MD; and Jennifer N. Gelinas, MD, PhD

8:45 – 10:15 AM

## Investigators Workshop (IW) | Recent Advances and Future Directions in NORSE/FIRES Research

Convention Center, W230 C/D, Level 2

### Overview

New-onset refractory status epilepticus (NORSE) and its subtype febrile infection-related epilepsy syndrome (FIRES) are uncommon, but challenging, conditions familiar to epileptologists, neurointensivists, and neurologists. They affect previously healthy individuals and lead to considerable morbidity and mortality. NORSE and FIRES are the focus of ongoing collaborative research which is leading to advances in both clinical and basic science research.

This workshop profiles recent advances supporting the role of neuroinflammation in the pathogenesis of NORSE/FIRES, including potentially specific cytokine profiles in cryptogenic cases, and outlines the growing body of retrospective evidence and ongoing research supporting the clinical management of NORSE/FIRES, including immunotherapy. These data are the stepping stone for the development of prospective studies to improve the evidence guiding the management of people with NORSE/FIRES. The presenters review recent basic science and clinical advances in NORSE/FIRES and facilitate discussion focused on future research directions globally.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Discuss the prevailing basic science models supporting the role of neuroinflammation in NORSE/FIRES
- Outline translational aspects of ongoing research supporting the clinical management of NORSE/FIRES and how this research will support future international studies
- Recognize challenges in managing NORSE/FIRES and status epilepticus in clinical settings faced with fewer resources

## Program

**Moderators:** Teneille Gofton, MD, MSc, FRCPC, CSCN(EEG); and Raquel Farias-Moeller, MD

**Speakers:** Charles Howe, PhD; Lawrence Hirsch, MD, FAAN, FACNS, FANA, FAES; and Elma Paredes Aragon, MD



# Program | Sunday, December 3

8:45 AM – 5:30 PM

## Annual Course | It's About Time: Timing in Epilepsy Evaluation and Treatment

Convention Center, W415 A/B, Valencia, Level 4

 Digital Select  CME & CE

### Overview

Timing in epilepsy care is critical and is a major determinant of patient outcome. The Annual Course "It's About Time" approaches timing in epilepsy evaluation and treatment from different angles to provide a comprehensive review of the importance of timing in epilepsy care.

The course begins with addressing treatment gaps with respect to disparity and behavioral health. The second session explores timing in epilepsy clinical care and diagnostic evaluation; and addresses autoimmune-associated epilepsy, developmental and epileptic encephalopathies, acute symptomatic seizures, and delivery of dietary therapy. The third session details topics regarding epileptogenesis, seizure prediction, epilepsy biomarkers, and critical care EEG patterns. The final session examines optimal timing with epilepsy surgery with or without devices, status epilepticus, and addresses standardization of the neuropsychological evaluation. There are two patient perspective threads throughout the course detailing their experience with timing regarding epilepsy care and surgery.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Describe gaps in epilepsy treatment with regard to disparity and clinical care
- Analyze timing in epilepsy clinical care regarding autoimmune-associated epilepsy, developmental and epileptic encephalopathy, acute symptomatic seizures, and dietary therapy
- Indicate factors that influence timing in the epilepsy diagnostic evaluation, including seizure prediction, epileptogenesis, epilepsy biomarkers, and ictal-interictal EEG patterns
- Develop skills to approach optimal timing with epilepsy surgery

**Chair:** Heather Ravvin McKee, MD, FAES

**Moderator:** Adriana Bermeo-Ovalle, MD

### Program

#### Session 1: Time to Open Our Eyes: Time to Re-evaluate Current Epilepsy Care

**Moderator:** Heather Ravvin McKee, MD, FAES

- 8:45 AM** Introduction | Heather Ravvin McKee, MD, FAES
- 8:50 AM** Patient Story: Patient Perspective: Introduction to My Epilepsy Story | Rebeca Figueroa
- 8:55 AM** Lecture: Effects of Disparities on Timing of Treatment | Jorge Vidaurre, MD, FAES
- 9:15 AM** Lecture: Gaps in Epilepsy Care: How can We Improve? | Dave Clarke, MD, FAES
- 9:35 AM** Lecture: Optimizing Behavioral Health in Patients with Epilepsy | Janelle Wagner, PhD, FAES
- 9:55 AM** Break

#### Session 2: Time is Brain: Timing in Epilepsy Clinical Care

**Moderator:** Adriana Bermeo-Ovalle, MD

- 10:10 AM** Patient Perspective: Timing of Clinical Course and Surgery | Rebeca Figueroa
- 10:15 AM** Lecture: Autoimmune-associated Epilepsy and Seizures: Tips for Avoiding Delays | Jeffrey Britton, MD, FAAN, FACNS, FANA, FAES
- 10:35 AM** Lecture: Developmental and Epileptic Encephalopathy (DEE): Timing of Treatment to Deliver the Greatest Cognitive and Behavioral Impact | Linda Laux, MD
- 10:55 AM** Debate: Acute Symptomatic Seizures: Continue or Discontinue Treatment? | Eugen Trinkka, MD, MS, FRCP; and Clio Rubinos, MD
- 11:25 AM** Lecture: Optimal Timing and Delivery of Dietary Therapy in Epilepsy | Tanya J. W. McDonald, MD, PhD
- 11:45 AM** Break for Lunch

#### Session 3: Time for a Diagnosis: Timing in Diagnostic Evaluation

**Moderator:** Adriana Bermeo-Ovalle, MD

- 2:00 PM** Patient Perspective: Introduction to My Epilepsy Story | Leigh Goldie, MEd
- 2:05 PM** Lecture: It is Time to Predict Seizures | Fred Lado, MD, PhD, FAES
- 2:25 PM** Lecture: Before the Seizures Start – Epileptogenesis and its Impact on Timing of Treatment | Martina Bebin, MD, MPA
- 2:45 PM** Lecture: Is it Time to Utilize Novel Epilepsy Biomarkers? | Christos Papadelis, PhD

SUNDAY

## Program | Sunday, December 3

**3:05 PM** Debate: Timing in Critical Care: Do We Treat Nonconvulsive Seizures or Ictal-interictal Patterns? | Aaron Struck, MD, FAES; and Carolina Maciel, MD, MSCR

**3:35 PM** Break

### Session 4: It's About Time for Surgery: Timing with Epilepsy Surgery

**Moderator: Heather Ravvin McKee, MD, FAES**

**3:50 PM** Patient Perspective: Timing of Clinical Course and Surgery | Leigh Goldie, MEd

**3:55 PM** Debate: Neuromodulate or Resect: Which Comes First? | Ana Luisa Valasco Monroy, MD, PhD; and Nitin Tandon, MD, FAES

**4:25 PM** Lecture: Time—The Modifiable Factor in Epilepsy Surgery | Guadalupe Fernandez Baca-Vaca, MD

**4:45 PM** Lecture: Neuropsych Outcomes—Time for Collaborative Standardization | Madison Berl, PhD, FAES

**5:05 PM** Lecture: Is There a Time for Surgery with Status Epilepticus? | Ahsan Moosa Naduvil Valappil, MD

**5:25 PM** Course Wrap-up | Heather Ravvin McKee, MD, FAES

#### Education Credit

6.0 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](https://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

9:00 – 11:30 AM

## Neurosurgery Symposium | Surgical Controversies in Temporal Lobe Epilepsies

Convention Center, W415 C/D, Valencia, Level 4

 Digital Select  CME & CE

#### Overview

This symposium focuses on the current state-of-the-art methods and procedures related to epilepsy surgery, with a particular attention to temporal lobe surgery. Controversial topics include the optimal approach for mesial temporal lobe epilepsy, the application of invasive monitoring or the appropriate method for neuromodulation in temporal lobe epilepsies.

#### Learning Objectives

Following participation in this activity, participants will be able to:

- Discuss the different aspects of epilepsy surgery practice, including indications, techniques, and expected results from different approaches addressing temporal lobe epilepsies
- Recognize challenges and controversies related to temporal lobe interventions, the options available, and the advantages and disadvantages of each intervention
- Identify the value of clinical and surgical collaboration, promoting positive patient outcomes and minimizing adverse consequences

**Co-Chairs: Jorge Gonzalez-Martinez, MD, PhD; and Guy McKhann, MD, FAES**

#### Program

Introduction | Guy McKhann, MD, FAES

What is Temporal Lobe Epilepsy | Patrick Chauvel, MD

The Role of Invasive Monitoring in Defining the Surgical Strategies | Jorge Gonzalez, MD, PhD

Standard vs. Tailored Temporal Resections/Ablations | Sarah Bick, MD

Nuances of Temporal Lobe Surgery in the Pediatric Population | Chima Oluigbo, MD

Panel Discussion | All Faculty

#### Education Credit

2.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](https://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

10:00 AM – 4:00 PM

## Exhibit Hall

Convention Center, West Hall C, Level 2

10:00 AM – 4:00 PM

## Poster Session 2

Author Present Time: 12:00 - 2:00 PM

Convention Center, West Hall C, Level 2

#### Overview

Posters are grouped by general topic category at various times throughout the meeting. Poster authors are available for discussion from 12:00–2:00 PM.

10:30 AM – 12:00 PM

## Investigators Workshop (IW) | Challenges and Opportunities Harmonizing Experimental and Clinical TBI Data

Convention Center, WF3, Tangerine Ballroom, Level 2

### Overview

A major challenge in using the molecular, imaging, and electrophysiological preclinical and clinical research findings towards the successful development and implementation of new treatment strategies for epilepsy is the lack of tools that de-risk their translation and implementation across species. Post-traumatic epilepsy (PTE) is a common but poorly understood long-term outcome of traumatic brain injury (TBI). The Epilepsy Bioinformatics Study for Antiepileptogenic Therapy (EpiBioS4Rx) is an NINDS-funded international, multicenter Center without Walls working on PTE with the objective of developing the techniques to identify biomarkers to determine patient populations at risk and likely to benefit from PTE prevention therapies.

This session presents EEG, imaging, and blood-based biomarker data identified in preclinical and clinical studies from the EpiBioS4Rx, a research program designed to develop tools to identify multimodal biomarkers of PTE. Significance, opportunities, and challenges of harmonizing preclinical and clinical multimodal data to create a centralized data archive for the research community will be described and discussed. Four investigators from EpiBioS4Rx present the various obstacles they face and the novel solutions they have developed to overcome these challenges.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Understand EpiBioS4Rx and the significance of harmonizing large-scale PTE studies
- Identify obstacles related to harmonization and translation of experimental and clinical data in epilepsy research, lending from the experience in PTE research; specific obstacles will address (1) multimodality TBI data, and (2) animal to human data translation
- Understand how the research model and analytic tools developed by workshop investigators can be used to address these challenges

### Program

**Moderators:** Dominique Duncan, PhD; and Aristeia Galanopoulou, MD, PhD, FAES

**Speakers:** Anna Maria Katsarou, MD, FAES; Denes Agoston, MD, PhD; Dominique Duncan, PhD; and Ioannis Pappas, PhD

There are three ways to access abstracts presented during this poster session:

1. Download the AES Annual Meeting app to view uploaded ePosters
2. Pick up the guide to poster abstracts, available in the registration area
3. Visit [aesnet.org/education/annual-meeting/aes-abstractsearch](https://aesnet.org/education/annual-meeting/aes-abstractsearch) for our searchable abstract database

10:30 AM – 12:00 PM

## Investigators Workshop (IW) | Adult Genetic Epilepsy Patients Management

Convention Center, W230 A/B, Level 2

### Overview

The field of epilepsy genetics is rapidly evolving. The advances in pediatric epilepsy patients, especially in developmental epileptic encephalopathies, have led clinical genetic testing to become a part of routine testing in pediatric epilepsy, but its utility for adult patients has not been well established. This is an important consideration due to complexity of the transition from pediatric to adult care, as well as direct impact on clinical management. This workshop aims to invigorate further interest in this field and stimulate collaborative efforts to identify adult epilepsy patients who would benefit from genetic evaluation as well as personalized treatment.

This workshop covers the topics of adult genetic epilepsy patient management. Participants review the latest new guideline as well as pertinent clinical data available, and critically evaluate the recent exciting translational research findings. The discussion (1) reinforces the utility of genetic testing in certain adult epilepsy patient candidates; (2) defines the workflow of identifying and utilizing genetic testing for adult epilepsy patients in clinical practice, as well as their management; and (3) develops a deeper understanding regarding the genetic underpinning of the etiology and comorbidities of adult epilepsy patients.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Develop a scientifically informed framework to assess when and how genetic evaluation is beneficial in adult epilepsy patients
- Describe how genetics is transforming clinical practice in adult epilepsy patients
- Appraise the possible future role of genetic biomarkers in identifying the etiology and comorbidities of adult epilepsy patients

### Program

**Moderators:** Yi Li, MD, PhD; and Daniel Lowenstein, MD, PhD

**Speakers:** Elizabeth Gerard, MD, FACNS; Chantal Depondt, MD, PhD; and Colin Ellis, MD

## Program | Sunday, December 3

10:30 AM – 12:00 PM

### Investigators Workshop (IW) | Loss of Consciousness During Seizures: Mechanisms and Avenues for Interventions

Convention Center, WF1, Tangerine Ballroom, Level 2



#### Overview

Loss of consciousness is one of the most disabling features of epileptic seizures, with profound adverse impact on mobility, mortality, and quality of life for people with epilepsy. Our understanding of the mechanisms of consciousness is nascent, but recent investigations in human and animal models advance our mechanistic understanding of ictal loss of consciousness (LOC), including how seizures impair awareness. Improved mechanistic understanding of ictal LOC leads to translational advances in preventative and neuromodulation therapies. The goal of this workshop is to stimulate discussion about current results and promising research avenues in this clinically important research field.

While focal seizures decrease neuronal firing in subcortical networks, non-convulsive generalized seizures cause abnormally synchronous cortico-thalamic discharges with overall depressed neuronal activity. In contrast, convulsions from secondarily generalized seizures yield widespread paradoxical increases in neuronal firing. While physiological mechanisms of loss of consciousness differ across seizure types, they affect the same broad cortical/subcortical networks. We critically review theories of consciousness and possible unifying mechanisms for impaired consciousness during seizures.

#### Learning Objectives

Following participation in this activity, participants will be able to:

- Acquire knowledge of fundamental mechanisms of impaired consciousness in focal and generalized seizures through recent electrophysiology, neuroimaging, and behavioral studies in patients and animal models
- Understand the cortical/subcortical networks preferentially involved in ictal LOC
- Understand some current research gaps in the field of consciousness and epilepsy research and promising avenues for future research

#### Program

**Moderators:** Kimford Meador, MD, FRCPE, FAAN, FAES; and Hal Blumenfeld, MD, PhD

**Speakers:** Melanie Boly, MD, PhD; Cian McCafferty, PhD; and Jiayang (Jerry) Liu, PhD

10:30 AM – 12:00 PM

### Investigators Workshop (IW) | Value of a Shared Framework for Copy Number Variants and Structural Variants

Convention Center, W230 C/D, Level 2

#### Overview

Neurodevelopmental-related Copy Number Variants and Structural Variants (CNV/SVs) are overwhelmingly associated with epileptic and neurodevelopmental sequelae and collectively impose a lifelong heavy seizure burden on affected individuals. The complexity of CNV/SVs has been seen as a barrier to effective therapies—leaving this class of disorders largely avoided due to their complexity by translational researchers. However, improvements in technology have accelerated the discovery of disease-causing CNV/SVs and increased the available tools to investigate therapeutic targets.

This workshop summarizes the challenges in studying CNV/SVs, highlights scientific advances, and explores the value of using a shared framework to accelerate progress. Collaborative, integrated approaches are needed that:

1. Capitalize on commonalities across disorders
2. Provide economies of scale for research expenditures
3. Leverage recent advances to create new approaches
4. Engage patients and families alongside scientists and clinicians
5. Attract more young researchers

#### Learning Objectives

Following participation in this activity, participants will be able to:

- Explain the burden and prevalence of neurodevelopmental-related CNV/SVs within the epilepsy population and the challenges associated with translational studies targeting these populations
- Discuss new methods and innovative approaches to studying neurodevelopmental-related CNV/SVs
- Describe the advantages from working within a patient-led, shared framework to accelerate progress towards therapies overall and specifically in the CNV/SNV space

#### Program

**Moderator:** Heather C. Mefford, MD, PhD

**Speakers:** Tony Wynshaw-Boris, MD, PhD; James Fink, PhD; Dennis Lal, PhD; and Yssa DeWoody, PhD



12:00 – 1:30 PM

## Poster Session | Basic Science Poster Highlights and Lunch

Convention Center, WF4, Tangerine Ballroom, Level 2

### Overview

This session features the most exciting and innovative studies focused on understanding the basic mechanisms of epilepsy and using cutting edge approaches to understand and treat the mechanisms of epilepsy.

**Moderators: Chris Dulla, PhD; and Esther Krook-Magnuson, PhD**

See page 37 for full poster listing.

1:30 – 3:00 PM

## Investigators Workshop (IW) | Addressing Social Determinants of Health to Promote Equitable Epilepsy Care

Convention Center, WF3, Tangerine Ballroom, Level 2

### Overview

Understanding and addressing social determinants of health (SDOH) is central to improving health equity and providing patient-centered care. This has been an area of research and intervention development in many areas of medicine (e.g., aging, cancer); however, the field of epilepsy has more recently started to recognize the health disparities associated with epilepsy care and outcomes. Given the health disparities associated with epilepsy, the lack of integration of SDOH in epilepsy care and research is concerning.

There is an increased interest among epilepsy clinicians and researchers in better understanding and addressing SDOH to promote more equitable epilepsy care. This workshop provides a review and in-depth discussion of the SDOH associated with disparities in epilepsy, the impact of SDOH on non-epilepsy outcomes (i.e., cognitive), the integration of SDOH in research, as well as a community-based model of epilepsy care and non-traditional models of care that facilitate equitable health.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Describe the inclusion of SDOH in research and how to utilize the NIH Health Disparities Research Framework
- Understand the impact of SDOH on clinical and cognitive outcomes
- Recognize the limitations of traditional models of care and understand how a community-based model can facilitate equitable health

### Program

**Moderators: Anny Reyes, PhD; and Temitayo Oyegbile-Chidi, MD, PhD, FAES**

**Speakers: Elaine Kiriakopoulos, MD, MSc; and Elizabeth Felton, MD, PhD, FAES**

1:30 – 3:00 PM

## Investigators Workshop (IW) | Leveraging Thalamocortical Interactions to Improve Patient Treatment

Convention Center, WF1, Tangerine Ballroom, Level 2

### Digital Select

### Overview

Over the last decade, there has been a surge of interest in the application of thalamic neuromodulation to manage seizures. This is despite how little the epilepsy community knows about how thalamic stimulation facilitates seizure termination, or how the thalamus and cortex interact during seizures. While the thalamus is an increasingly popular target of neurostimulation for epilepsy treatment, the roles it plays in seizure genesis and termination and the mechanisms through which thalamic stimulation may disrupt seizures remain topics for debate. This uncertainty is a major reason why we cannot predict the efficacy of thalamic stimulation therapy.

This workshop discusses when and how the thalamus and cortex might interact during the seizure and how this interaction can be used to further our understanding of seizure disruption with the use of thalamic neuromodulation techniques. The data discussed during this workshop comes from thalamic recordings captured during neurostimulation or intracranial surgical investigation, which will be of significant interest to clinicians and scientists in the field.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Examine different approaches to evaluating thalamic involvement in epilepsy
- Identify the role of the thalamus in different seizure types
- Discuss the ways in which thalamic neurostimulation may facilitate epilepsy treatment

### Program

**Moderators: Pariya Salami, PhD; and Sydney Cash, MD, PhD**

**Speakers: Pariya Salami, PhD; Sameer Sheth, MD, PhD, FAANS; Liankun Ren, MD, PhD; and John Rolston, MD, PhD, FAES**

## Program | Sunday, December 3

1:30–3:00 PM

### Investigators Workshop (IW) | Protein Trafficking and Proteostasis Regulators in Genetic Epilepsy

Convention Center, W230 A/B, Level 2

#### Overview

As genetic testing becomes more widespread and more patients receive a genetic diagnosis, researchers are studying many protein variants associated with epilepsy. Interesting and complex pathologies are emerging from these studies. Some loss of function mutations are actually capable of partial function, if the protein can reach its proper final location. Rescue of the mutant protein may be a more effective treatment than conventional antiseizure medications (ASMs). Furthermore, proteostatic impairments can contribute to epilepsy pathology and are not addressed by traditional ASMs. As the number of identified protein mutations soars, emerging treatment approaches like proteostasis regulators will become more popular.

This workshop describes protein homeostasis (proteostasis) in the context of genetic epilepsy. Speakers address how epilepsy-associated mutant proteins are subject to abnormal trafficking and degradation, as well as the effects of mutations on interactions with binding partner proteins. Speakers discuss how loss-of-function mutant proteins can be rescued, utilizing proteostasis regulators and chemical chaperones. Additionally, the mutant proteins can directly impair proteostasis, contributing to the pathomechanisms of the disease. One such consequence of the chronic presence of misfolded proteins – ER stress – is a recurring feature in several genetic epilepsies, and it can lead to neurodegeneration.

#### Learning Objectives

Following participation in this activity, participants will be able to:

- Discuss the impact of endoplasmic reticulum retention of mutant proteins in genetic epilepsies
- Discern how altered proteostasis can contribute to neurotoxicity
- Recognize the rising use of proteostasis regulators and chemical chaperones as treatment for genetic epilepsies

#### Program

**Moderator:** Sarah Poliquin, BS

**Speakers:** Sarah Poliquin, BS; Jing-Qiong Kang, MD, PhD; Tingwei Mu, PhD; and Hee Jung Chung, PhD

1:30–3:00 PM

### Investigators Workshop (IW) | Seizures in Alzheimer's Disease can Reveal New Opportunities for Epilepsy

Convention Center, W230 C/D, Level 2

#### Overview

Both epilepsy and Alzheimer's disease (AD) share pathophysiological similarities. Despite the increasingly recognized occurrence of seizures in AD, there is little insight into the conserved molecular mechanisms that drive hyperexcitability in AD and epilepsy. Most studies have assessed the role of amyloid precursor protein (APP) overexpression and tau in AD-related hyperexcitability, yet less attention is paid to assess the novel molecular interactions that drive seizure susceptibility in AD or determine how seizures adversely affect morbidity and mortality.

This workshop addresses the cutting-edge research on hyperexcitability in AD and defines how potentially novel therapeutic targets for people with temporal lobe epilepsy may benefit from such interdisciplinary advancements. Prior AES workshops addressing neurodegeneration and epilepsy have largely focused on increasing recognition and awareness of this shared pathophysiological phenomenon. Yet, the mechanistic intersection between AD and epilepsy to identify untapped molecular drivers and therapeutic targets after hyperexcitability in AD has not yet been extensively explored in an AES workshop. Recent advances in our understanding of the pathophysiological and functional impacts of seizures in AD, as well as the demonstration of novel molecular interactions leading to seizures in AD, has uncovered exciting opportunities to improve the management of epilepsy more broadly.

#### Learning Objectives

Following participation in this activity, participants will be able to:

- Discuss the novel and conserved molecular mechanisms underlying hyperexcitability in AD and temporal lobe epilepsy
- Identify one novel therapeutic target or pathophysiological process that may contribute to hyperexcitability in AD preclinical models
- Define the conserved pathological features of seizures in AD and how these may reveal new molecular targets

#### Program

**Moderators:** Melissa Barker-Haliski, PhD; and Thimmasettappa Thippeswamy, DVM, MVSc, PhD, FAES

**Speakers:** Aaron Del Pozo Sanz, PhD; Delia Talos, MD; and Marson Putra, MD, PhD

2:30 – 5:00 PM

## Best Practices in Clinical Epilepsy Symposium | Inclusive Care in Epilepsy: Is a Single Provider Doing All Roles?

Convention Center, W415 C/D, Valencia, Level 4

*Special Presentation: Rebecca Goldberg Kaufman AES Clinical Award in Ethical Neuropsychiatry*



### Overview

Not all providers are part of comprehensive epilepsy centers, and thus, some providers have to manage all parts of epilepsy care. This session addresses some areas that single providers may have to manage while threading through the narrative of access, inclusivity, and ethical considerations in such practice.

This symposium addresses the questions and concerns that may arise in clinics where a single provider may be managing all of the roles of an interdisciplinary team. It sheds light on how such concerns may impact navigating care with vulnerable and underserved populations. It covers the use of big data tools; and issues related to diversity, equity, and inclusion across the life span, including patient engagement and communication, as well as patient protective concerns; and pharmacogenetics. Presenters range from a variety of disciplines, including pharmacists, physicians, advanced nurse practitioners, and bio-ethicists. Topics have either clinical or research integration and will define social determinants that influence access to care and medication management, clinical research, and ethical considerations. A patient advocate will present and thread throughout the presenters.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Identify tools for clinical research of big data
- Identify strategies for patient engagement, counseling patients, and use of telehealth
- List newer antiseizure medications and their potential drug interactions
- Address clinical and research ethical concerns

**Co-Chairs: Shanna Guilfoyle, PhD, FAES; and Meghann Soby, MSW, LICSW**

### Program

Introduction | Meghann Soby, MSW, LICSW

Patient Story | Marry Mack, PharmD, BCPPS

Considerations in Use of Big Data Tools to Inform Clinical Practice | Anup D. Patel, MD, FAAN, FAES

Providing Comprehensive and Inclusive Epilepsy Care at a Community-based Hospital | Karen Secore, MS, APRN, CNRN, *Rebecca Goldberg Kaufman AES Clinical Award in Ethical Neuropsychiatry*

Pharmacogenetics and Drug Interactions | Renad Abu-Sawwa, PharmD, BCPPS

Ethical Considerations in Delivering Inclusive Epilepsy Care | Paul Ford, PhD

Patient Story Wrap-up | Marry Mack, PharmD, BCPPS

Panel Discussion | All Faculty

### Education Credit

2.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](http://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

3:15 – 4:45 PM

## Investigators Workshop (IW) | Minimally Invasive Epilepsy Surgery: Molecular Diagnosis and Therapies

Convention Center, WF3, Tangerine Ballroom, Level 2

### Overview

Previous studies to identify mosaic mutations in epilepsy relied on resected brain tissue. Minimally invasive surgical approaches, including sEEG electrode-guided thermocoagulation and laser interstitial thermal therapy, are increasingly being used to reduce morbidity and improve quality of life. These approaches are better tolerated and associated with lower morbidity than classic resective surgical approaches, and are safer because they destroy epileptogenic tissue in situ rather than remove it. However, they pose significant challenges to research as they destroy precious epileptogenic tissue which could otherwise be interrogated molecularly.

As a consequence of the surgical approaches, novel methods are needed to identify the molecular cause in patients undergoing minimally invasive surgical procedures. This workshop achieves this goal by bringing together multidisciplinary experts in the clinical advancement of thermocoagulation and laser interstitial thermal therapies with translational researchers seeking to identify somatic mutations and new therapeutic targets for epilepsies. This workshop (1) discusses current and future therapeutic applications and outcomes of these approaches, and (2) explores cutting edge techniques to harvest trace tissue from the surface of sEEG electrodes or laser instruments for molecular diagnosis.

## Program | Sunday, December 3

### Learning Objectives

Following participation in this activity, participants will be able to:

- Understand which epilepsies benefit from treatment with sEEG electrode-guided thermocoagulation and laser interstitial thermal therapy, the current outcomes, and future therapeutic targets
- Describe cutting-edge research methods to harvest DNA from sEEG electrodes and laser instruments to detect brain mosaicism
- Review the contribution of mosaic mutations to lesional epilepsies, including focal cortical dysplasia and hypothalamic hamartoma

### Program

**Moderators:** Karl M. Klein, MD, PhD, FRCPC; and Michael Hildebrand, PhD

**Speakers:** Laura Tassi, MD; Daniel J. Curry, MD; and Tim Green, BSc

3:15–4:45 PM

### Investigators Workshop (IW) | Recent Advances in Gene Therapies for the Epilepsies: A Preclinical Perspective

Convention Center, W230 A/B, Level 2

#### Overview

Notable successes in FDA-approved gene therapies in humans targeting disorders of the nervous system have provided a blueprint for successful gene therapy approaches to treat epileptic disorders. These developing gene therapies include gene replacement strategies to target monogenic epilepsies and more generalizable therapies, which seek to overexpress or mis-express genes in order to control network hyperexcitability.

The therapeutic promise and intense interest in gene therapies to treat epileptic disorders justifies a workshop focusing on the preclinical development of diverse gene therapies. This workshop focuses on the preclinical development of diverse gene therapies, including target selection, delivery method, dosage, and efficacy.

#### Learning Objectives

Following participation in this activity, participants will be able to:

- Explain specific gene therapies and their mechanism of action that are currently in preclinical development to treat epilepsy
- Describe the advantages and disadvantages of virus-mediated gene therapy technologies for epileptic disorders
- Recognize the advantages and disadvantages of virus-mediated gene therapy technologies for epileptic disorders

### Program

**Moderators:** Suzanne Paradis, PhD; and Rachel Bailey, PhD

**Speakers:** Meghan Eller, BS; Wenxi Yu, PhD; and Dimitri Kullmann, MD, PhD

3:15–4:45 PM

### Investigators Workshop (IW) | Source Imaging Along Time and Space: Technical Challenges and Clinical Yields

Convention Center, WF2, Tangerine Ballroom, Level 2

#### Overview

Advanced source imaging, using either high-density electroencephalography (HD-EEG) or magneto-encephalography (MEG), has significantly evolved from conventional dipole modeling, providing now spatio-temporal images mapping the underlying epileptogenic sources and networks. Methodological advancements that have allowed clinicians to fully benefit from complementarity between HD-EEG and MEG, while tackling new questions in the time and space domains, are:

1. **Time domain:** When shall we best localize epileptic activity: during interictal (spikes, high frequency oscillations) or ictal events, during prolonged recordings to assess the effect of vigilance states (sleep stages), or during the resting state?
2. **Space domain:** How deep can we accurately localize epileptic discharges?

This workshop demonstrates why advanced HD-EEG/MEG source imaging techniques should now be considered in clinical practice, going beyond point-like source localization to distributed dynamic 3D imaging to estimate the underlying spatial extent of the epileptogenic sources, their organization within a network involving deep and cortical regions, and their dynamic evolution along time (ictal, interictal, sleep).

#### Learning Objectives

Following participation in this activity, participants will be able to:

- Recognize the state-of-the-art of HD-EEG/MEG source imaging techniques providing spatio-temporal mapping of the epileptogenic sources
- Explain when we should localize epileptic activity and what are the clinical yields and challenges
- Describe where we can accurately localize epileptic bioelectrical activity in the brain from scalp recordings as evidenced by insights from simultaneous intracerebral EEG recordings with MEG or HD-EEG



5:00 – 7:30 PM

## Special Lecture | The Multidisciplinary Patient-centered Team in Treating People with Epilepsy

Convention Center, WF1, Tangerine Ballroom, Level 2

 Digital Select  CME & CE

### Overview

This session addresses the issue of providing comprehensive services to people with epilepsy (PWE) using a multidisciplinary team (MDT) to care for these patients. In their landmark report on epilepsy, The Institute of Medicine identified critical aspects of care for persons with epilepsy in an “ideal system” of epilepsy care. These included patient centeredness, co-management, coordination, community management, and education focus. The report suggests that these are best achieved by a patient-centered approach for the provision of epilepsy care (England MJ, et al. 2012). The National Association of Epilepsy Centers described a patient-oriented team as consisting of physicians (neurologists and neurosurgeons), nurses, EEG technologists, and social workers, among others. Several institutions also have dietitians, psychiatrists, and neuropsychologists who are involved in the care of patients with epilepsy.

This session provides education about MDT members, scope of practice, and special clinical situations. The Practice Management, Treatments, Advance Practice Providers, and Interprofessional Education Committees educate attendees on how to work with a number of specialties in the optimal care of patients with epilepsy and special circumstances where patients with epilepsy may benefit from such care.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Analyze social situations and find appropriate services for patients
- Create and optimize multidisciplinary teams for patients at their parent institutions
- Recognize the functioning of multidisciplinary teams

**Co-Chairs: Rohit Das, MD, MPH, FAES; and John Stern, MD, FAES**

### Program

**Introduction** | John Stern, MD, FAES

**The Role of Nurse Specialist, Nurse Practitioner, and Physician Assistant: Scope of Practice and Certifications and Their Role as an Epilepsy Team Member** | Susan Stanton, PA

**The Dietician and Dietary Therapies** | Christine Wheeler, MS, RD

**The Role of the Pharmacist in Epilepsy Pharmacotherapy and Patient Education** | Barry Gidal, PharmD, FAES

### Program

**Moderators: Christophe Grova, PhD; and Birgit Frauscher, MD, PhD, FAES**

**Speakers: Christophe Grova, PhD; Bin He, PhD; Eleonora Tamilia, PhD; and Francesca Bonini, MD, PhD**

3:15 – 4:45 PM

## Investigators Workshop (IW) | Translational Studies in Molecularly-based Therapies for Genetic Epilepsies

Convention Center, W230 C/D, Level 2

### Overview

Genetic epilepsies represent about 30-40% of all epilepsy cases. Many of these syndromes have well-defined genetic origins, and thus, may be amenable to targeted gene therapy. However, there are multiple challenges in translating from bench to bedside. Epilepsies with well-defined genetic etiology offer excellent opportunities for the development of targeted gene therapy.

This workshop focuses on the practical aspects of gene therapy development in the monogenic epilepsy space. The speakers, each with distinct expertise in gene therapy methods and deep knowledge of specific monogenic epilepsies, discuss bench-to-bedside strategies that will enable eventual clinical trials. Specifically, the speakers detail the advantages and pitfalls of a range of virus vector gene replacement therapies and ASO-based gene-regulating approaches. They discuss representative gene therapy strategies and critical translation of preclinical principles to viable clinical trials, with the overall objective of exposing the audience to strategies that can overcome the technical and logistical barriers to the deployment of these much-needed therapies.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Review the scientific rationale and the latest translational developments in four examples of gene therapies for representative monogenic epilepsies; specifically, the speakers focus on virus-based gene replacement and on anti-sense oligonucleotide
- Discuss the hurdles and solutions at all stages of gene therapy development, from the design of the therapeutic agent to the execution of a clinical trial
- Present to the audience several data driven translational strategies generalizable for the development of molecularly based therapies for genetic epilepsy

### Program

**Moderators: Henry Lee, PhD; and Alexander Rotenberg, MD, PhD**

**Speakers: Henry Lee, PhD; Steven Gray, PhD; Guangping Gao, PhD; and Manoj Patel, PhD**

## Program | Sunday, December 3

The Role of the Clinical Psychologist in PNES |  
Laura Howe-Martin, PhD

Neuropsychiatry in Treatment of Mood and Behavior in  
Epilepsy | Chadwick Lane, MD

Homelessness, Addiction, and Social Issues: How a Social  
Worker can Help | Meghann Soby, MSW, LCSW

Defining the Optimal Patient Care Team | Rohit Das, MD,  
MPH, FAES

Panel Discussion | All Faculty

### Education Credit

2.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](https://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

5:15–6:15 PM

### Poster Session | Broadening Representation Inclusion and Diversity by Growing Equity (BRIDGE)

Convention Center, WF4, Tangerine Ballroom, Level 2

#### Overview

Please join AES for an hour of learning and networking – plus refreshments! – at this poster session, which spotlights research relating to the needs of the underserved populations, along with showcasing the work of accomplished investigators who identify with under-represented groups. As a leading provider of early career research funding and continuing education for epilepsy professionals, AES plays an instrumental role in growing a diverse epilepsy workforce and encouraging work that will impact disparities in care for the underserved.

**Moderator: Joaquin Lugo, PhD, FAES**

See page 38 for full poster listing.

6:00–7:30 PM

### SIG | Epidemiology: Epidemiology in Action: How Our Findings Change Epilepsy Clinical Practice

Convention Center, W313, Level 3

#### Overview

The SIG is a platform addressing how epidemiological findings are used to impact epilepsy clinical practice. The session discusses the use of medical records, registries, patient-centered surveys and large automated data sets to assess care quality and efficiency in epilepsy care. This is important in order to create healthcare delivery interventions to improve the quality of care for people with epilepsy.

The first portion is for 2 trainees, chosen from those abstracts submitted to the annual meeting. Each of these investigators has 7 minutes to present the topic of their poster at the 2023 meeting. The second portion respects the theme “Epidemiology in Action—How Our Findings Change Epilepsy Clinical Practice.” Two speakers, known for their research/leadership in this field, present:

1. Pediatric epilepsy perspective of how epidemiological studies change and are applied to clinical practice
2. An adult epilepsy perspective

### Learning Objectives

Following participation in this activity, participants will be able to:

- Review how epidemiological findings are impacting epilepsy clinical practice in a pediatric setting as well as future directions and gaps in current knowledge
- Recognize how epidemiological findings are impacting epilepsy clinical practice in an adult setting as well as future directions and gaps in current knowledge

**Chair: Churl-Su Kwon, MD, MPH, FRSPH**

**Vice Chair: Leah Blank, MD, MPH**

### Program

Introduction | Churl-Su Kwon, MD, MPH, FRSPH

Abstract Presentation 1: Disparities and Algorithm Bias in Natural Language Processing of Epilepsy Outcomes | Kevin Xie

Abstract Presentation 2 | New-onset Vascular Events in Older People with Epilepsy: A Cohort Study of the Canadian Longitudinal Study on Aging (CLSA) | Jimmy Li

Epidemiology in Action: How Our Findings Change Epilepsy Clinical Practice: A Pediatric Perspective | Zachary Grinspan, MD, MS, FAES

Epidemiology in Action: How Our Findings Change Epilepsy Clinical Practice: An Adult Perspective | Lidia Moura, MD, PhD, MPH

6:00–7:30 PM

### SIG | Global Health: The Global Approach to Tele-care Delivery – Bridging the Epilepsy Gap

Convention Center, W311 B - D, Level 3

 **CME & CE**

#### Overview

This SIG uniquely explores how telecommunication in and between countries may improve access and reduce the treatment gap. Telemedicine is a hot topic spurred by the COVID pandemic in many of our societies and on platforms. Low- and Middle-Income Countries (LMIC), as well as small Island States, seldom have the fiscal means or providers with sub-specialty training to appropriately investigate

6:00 – 7:30 PM

## SIG | Health Disparities: Creating a Roadmap for Action

Convention Center, W311 F - H, Level 3

### Overview

There are increasingly documented health disparities (HD) in epilepsy for multiple minoritized groups. We know that addressing HD requires a multifaceted approach, including collaboration of healthcare providers, community organizations, researchers, and policymakers. Healthcare providers may not have the knowledge or tools to help attain health equity and incorrectly assume that they have minimal ability to impact disparities. To prevent a dearth of action and inspire change, this session has speakers providing ideas and examples of actions that providers can put in place to help achieve equitable care. The discussion and exchange of ideas can spark growth in the field and improve equitable care for people with epilepsy (PWE). Achieving health equity in epilepsy should be recognized as a never-ending goal for health care providers of PWE.

We use a case discussion followed by a moderated panel to promote discussion about HD solutions in PWE. We aim to increase and develop practical ideas in specific minoritized groups that can be emulated in other programs across the country. We address specific groups including socioeconomic disparities, Low English Proficiency PWE, LGBTQA+ PWE, and PWE with a high burden of social determinants of health. The goal is inspiring discussion that drives innovative and viable ideas to mitigate disparities and achieve epilepsy health equity.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Recognize the role of healthcare workers in helping achieve health equity for minoritized groups of PWE
- Describe viable approaches for healthcare providers to improve equitable care for minoritized groups of PWE
- Review ways to implement changes to mitigate HD and achieve health equity

**Chair: Camilo Gutierrez, MD, FAES**

**Vice Chair: Rebecca Garcia-Sosa, MD**

### Program

Introduction | Camilo Gutierrez, MD, FAES

Disparities in Epilepsy: A Case and Discussion | Leah Blank, MD, MPH

LGBTQA+ Patients with Epilepsy Care | Emily Johnson, MD, FAES

Social Determinants of Health in Epilepsy and Approach to Care | Elaine Kiriakopoulos, MD, MSc

Improving the Care of Low English Proficiency Patients | Rebecca Garcia-Sosa, MD

paroxysmal conditions such as epilepsy. EEG technologists and quality control and training are often lacking. There is paucity of Medical and Surgical Intervention. This is not restricted to LMIC. We face similar problems in rural regions within the U.S. This SIG addresses aspects of these components of wholistic care through tele-EEG-education, tele-surgical education and consultation, video-uploads and viewing, and rural engagement through telemedicine.

Dr. Herrera, from Peru, explores Telemedicine as a means of expediting epilepsy surgical work-up through a joint venture between North America and Lima. Sameer Zuberi, from Glasgow, reviews how video uploads may reduce time to treatment across continents. Ruta Yardi presents research in rural care delivery, and directly address ways to improve access in remote global regions. Lastly, we hear from Kisansa Mugoya Safi, from Uganda, and, Armela Becic-Huling, an EEG technologist originally from Bosnia, on their collaborative approach to EEG education.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Identify challenges faced by patients living in underserved populations in both the U.S. and Globally
- Recognize how tele-delivery can help through the spectrum of epilepsy care: diagnosis (through video), clinical care, medical and non-medical management
- Review the impact of inter- and intra-educational efforts in advancing investigative studies and epilepsy management globally

**Chair: Dave Clarke, MBBS, FAES**

**Vice Chair: Ruta Yardi, MD**

### Program

Virtual Education for Epilepsy Care Delivery and Epilepsy Pre-surgical Conference Between Countries: Each One, Teach One | Manuel Herrera, MD

Using Virtual Technology for Diagnostic Screening of Paroxysmal Disorders via Video Uploads and Screening for Comorbidities | Sameer Zuberi, MBChB, MD, FRCP, FRCPC

Telemedicine Across Counties and Countries: Reducing Access to Care Delivery within Rural USA and Beyond | Ruta Yardi, MD

Distance Training of EEG Technicians in Limited Resource Countries | Ameila Becic-Huling, BS; and Kisansa Mugoya Safi, EEG Tech in training

### Education Credit

1.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](http://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

## Program | Sunday, December 3

6:00–7:30 PM

### SIG | Neuroimaging: Clinical and Mechanistic Neuroimaging Assessment of Drug-resistant Epilepsies

Convention Center, W230 C/D, Level 2

#### Overview

Quantitative imaging can reveal network properties that may be associated with epilepsy etiologies and clinical trajectories related to antiseizure medication response. Nonetheless, quantifiable neuroimaging markers have not been consistently integrated into the clinical assessment of epilepsies.

In this SIG, we focus on new approaches and evidence related to the use of quantifiable neuroimaging to identify and provide mechanistic insight of drug-resistant epilepsies in both children and adults. We are particularly interested in discussing markers related to antiseizure medications and how they can inform on the mechanisms underlying different epilepsy syndromes and be leveraged to improve future clinical workflows. This session addresses the problem related to the variable response to antiseizure medications in epilepsy among patients with seemingly similar clinical profiles. This session discusses how quantitative neuroimaging methods can provide additional evidence regarding underlying network abnormalities that are related to medication responses.

#### Learning Objectives

Following participation in this activity, participants will be able to:

- Discuss recent quantitative neuroimaging discoveries concerning markers of refractoriness to antiseizure medications in patients with long-standing or newly diagnosed epilepsies
- Explain the significance of collaborating across multiple sites and nations, as well as various institutions, in order to enhance our comprehension of the common characteristics of medication-resistant epilepsy
- Outline existing opportunities and barriers to the implementation of quantitative neuroimaging within clinical workflows in adult and pediatric epileptology

**Chair: Leonardo Bonilha, MD, PhD**

**Vice Chair: Kathryn Davis, MD, MSTR, FAES**

#### Program

Introduction | Leonardo Bonilha, MD, PhD

Methodological Innovations and Clinical Applications of Quantitative Neuroimaging in the Diagnostic Workflow of Refractory Epilepsies | Fernando Cendes, MD, PhD, FAES

Quantitative MRI Markers of Pharmacoresistance in Newly Diagnosed Epilepsy | Simon Keller, PhD

Updates on Discoveries from ENIGMA-Epilepsy Related to Medication-refractory Epilepsies | Erik Kastner, PhD; and Sanjay Sisodiya, MD, PhD

Resting State fMRI in Pediatric Epilepsy for Seizure Onset Localization: Evidence and Methods | Varina Boerwinkle, MD

6:00–7:30 PM

### SIG | Psychosocial Comorbidities: Strengthening Multisector Engagement to Address Social Challenges in Epilepsy

Convention Center, W312 A–C, Level 3



#### Overview

Failing to meet the complex needs of people with epilepsy, their care partners, and families has serious consequences on health and social outcomes, and disproportionately so in the most vulnerable patient groups. Clinicians caring for people with epilepsy are not always adequately informed or connected to key adjunct programming and community resources which can assist with adjusting and coping with diagnoses, disease management and lifestyle management. Pervasive and common social stressors are often unrecognized and undertreated. Quality care requires the collaboration, knowledge, and skills of a spectrum of clinical and community professionals. Such collaboration supports accessible paths for people with epilepsy and their family members to be knowledgeable about epilepsy, to manage comorbid challenges, and to develop skills in self-management.

This SIG explores nuances in the social domains of family, education, employment, and relationships in epilepsy. Emphasis on the coordination of epilepsy-specific services to address social comorbidities is vital. This SIG reviews common social challenges and examine impact and outcomes, offering practical strategies to integrate clinical care with support at the community level. An emphasis on population-based approaches and evidence-based programming, inclusive of enhancing screening for social comorbidities and referral options to improve care, is discussed. Panel/audience discussion allows for innovative management strategies relevant for clinicians, epilepsy centers and community networks to be shared.

## Program | Sunday, December 3

### Learning Objectives

Following participation in this activity, participants will be able to:

- Describe common social factors impacting patients and families with epilepsy
- Summarize the roles that family dynamics, education, employment, and relationships each play in health outcomes for patients with epileps
- Describe adjunct support programming, resources and community partner networks that may assist in addressing the common manifestations of social comorbidities to elevate quality of care delivered to patients and families

**Chair: Jay Salpekar, MD, FAES**

**Vice Chair: Elaine Kiriakopoulos, MD, MSc**

### Program

Introduction | Jay Salpekar, MD, FAES

Socioeconomic and Psychosocial Factors Affecting Families of Children with Drug-resistant Epilepsy Requiring Surgery | Monika Jones, JD, CNP

Education and Learning: Cognitive Comorbidities and Their Impact on Functional Outcomes | Eva Alden, PhD, LP

Employment and Epilepsy – 2023 Update | Joseph Sirven, MD, FAAN, FANA, FAES

The Impact of Epilepsy on Relationships: Why Should We Care? | Janelle Wagner, PhD, FAES

Moderated Panel Discussion | Elaine Kiriakopoulos, MD, MSc

### Education Credit

1.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023-](https://aesnet.org/AES2023-) accredited for a complete list of accredited sessions.

## EPILEPSY SELF-MANAGEMENT

AES was awarded a grant from the CDC for *Disrupting Disparities: Documenting and Addressing Gaps in Epilepsy Care Through Healthcare Provider Education and Training*, a project aimed at improving outcomes for underserved people with epilepsy.

In a collaboration with the Dartmouth Coordinating Center for the Managing Epilepsy Well Network, AES is committed to improving clinical and community performance relating to epilepsy, self-management, and social determinants of health by delivering education and evidence-based self-management resources.

Learn how you can use self-management to help your patients manage their daily lives with epilepsy.

Visit [aesnet.org/self-management](https://aesnet.org/self-management) for:

- Self-Management Information and Resources
- Clinical Practice Tools
- Mental Health Resources
- Evidence-based Self-Management Programs

[aesnet.org/self-management](https://aesnet.org/self-management)

SUNDAY



## Program | Sunday, December 3

6:00–7:30 PM

### SIG | Quality and Safety: Optimizing Interventions for Status: Bridging Gaps Between Protocol and Practice

Convention Center, W311 A, Level 3



#### Overview

Virtually all hospital systems have a status epilepticus (SE) protocol, yet there remains a gap between guidelines and implementation of rapid, effective status treatment. Despite the mantra “time is brain,” SE treatment is often too little, too late, whether from sub-optimally-dosed benzodiazepines or from delayed administration of a second-line antiseizure medication. In clinical practice, treatment of SE spans a variety of settings and requires real time coordination among multiple stakeholders, including EMS, ED staff, pharmacists, nurses, neurologists, and non-neurologist physicians.

This SIG explores academic and practical considerations to improve the quality of SE treatment and examine the current and future states of how we measure patient outcomes following SE. This panel explores the barriers to rapid treatment for this neurological emergency, interventions to optimize status epilepticus treatment, and ways to measure patient outcomes.

#### Learning Objectives

Following participation in this activity, participants will be able to:

- Define barriers to early treatment of SE in prehospital, ED, and inpatient settings
- Demonstrate the impact of early treatment of SE on quality of life and functional outcomes
- Identify potential interventions to reduce time to treatment of SE

**Chair:** Susanna O’Kula, MD

**Vice Chair:** Ammar Kheder, MD, MRCP

#### Program

Introduction | Susanna O’Kula, MD

Prehospital Treatment of Status Epilepticus: Seizing an Opportunity for Improvement | Elan L. Guterman, MD, MAS

Outcomes in Status Epilepticus: What are We Doing Now? What could We Do Better? | Tobias Loddenkemper, MD, FAES

Interventions to Aid Early Treatment of Status Epilepticus in Hospital Settings | Meriem K. Bensalem-Owen, MD, FACNS, FANA, FAES

#### Education Credit

1.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](https://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

## AES Member Business Meeting

**AES members:** Join us for reflections and updates from AES President, Manisha N. Patel, PhD, FAES, on the essential business of the Society. Learn about recent accomplishments, changes, financials, and more.

Hyatt Regency Orlando,  
Orlando Ballroom, Convention Level  
Sunday, December 3 | 7:45–8:15 AM



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7:00–8:30 AM

## SIG | Clinical Epilepsy for the Advanced Practice Provider: Integrating APPs in Epilepsy Surgery Evaluation

Convention Center, W311 B–D, Level 3



### Overview

It is well known that people with epilepsy (PWE) often have a delay in receiving advanced care for their epilepsy including neuromodulation and surgery. With increased neurological needs being noticed throughout the world, APPs are often utilized to support the care of patients with refractory epilepsy. However, limitations in education surrounding EEG interpretation and imaging mean that APPs when surveyed have expressed lack of confidence at identifying appropriate surgical candidates and recommending additional testing needs.

Identification and planning for surgical intervention in patients with epilepsy is a complex process that involves multiple team members to be successful. This session includes discussion regarding the identification of surgical candidates, brain imaging and EEG interpretation, decision making about further testing, and presenting patients at surgical conferences. This SIG enhances the APPs' clinical skills and promote optimization of APPs in clinical practice, thereby increasing access to comprehensive care for patients with epilepsy. With use of case studies, this SIG helps APPs identify appropriate surgical patients including recommendations for additional testing, such as SPECT.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Identify the components of a surgical case conference report and discuss complex patients with multidisciplinary team
- Recognize and identify common neuroimaging findings associated with epilepsy in the potential epilepsy surgical candidate
- Review common EEG findings associated with epilepsy in the potential epilepsy surgical candidate

**Chair: Crystal Epley, MSN, APRN, FNP-C**

**Vice Chair: Julie DesMarteau, MPAS, PA-C**

### Program

Introduction | Julie DesMarteau, MPAS, PA-C

EEG Interpretation and the Surgical Candidate | Crystal Epley, MSN, APRN, FNP-C

Neuroimaging and the Surgical Candidate | Ezequiel Gleichgerrcht, MD, PhD

Presenting Your Patient at Surgical Conference | Elizabeth Koontz, APRN, BSN, MSN, NP-C

### Education Credit

1.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](https://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

7:00–8:30 AM

## SIG | Data Science in Epilepsy: TinyML: Platforms and Embedded Systems for Portable Data Science in Epilepsy

Convention Center, W311 F–H, Level 3



### Overview

Rapid innovation of neurotechnology has given rise to devices for chronic monitoring and treatment of epilepsy. Algorithms that reside onboard these devices must be capable of sifting signal from noise, detecting patterns, and deciding course of action in responsive therapy, including electrical stimulation. However, state-of-the-art machine learning (ML) algorithms are typically computationally expensive, require large amounts of power to accurately predict outcomes, and hosted in the cloud. This hinders the application of powerful ML algorithms to epilepsy, which often calls for small and low-powered devices, requiring ML that can be run on the edge with low computational power and memory usage. Tiny Machine Learning (TinyML) is a field that enables the implementation of machine learning within power- and performance-constrained systems, such as sensors and microcontrollers. Although there are ongoing efforts to integrate TinyML in the ML community, efforts have not yet gained widespread discussion in the epilepsy community.

This session features a series of talks from experts on tiny machine learning (TinyML) architectures for data science to be performed onboard devices with low processing power and memory. We discuss hurdles in scalability of complex artificial intelligence algorithms developed and validated in large, offline datasets, data integration across multiple devices simultaneously, and cross-modal, back translation of methods developed for neurological disorders outside of epilepsy. This is followed by a panel discussion on the challenges of hardware and algorithm development for devices, impact of low power constraints on therapy, and implications toward security and privacy.

# Program | Monday, December 4

## Learning Objectives

Following participation in this activity, participants will be able to:

- Communicate the challenges of traditional machine learning approaches and the need for TinyML solutions for applications in epilepsy
- Describe use cases and applications of TinyML in epilepsy
- List challenges in the application of TinyML to epilepsy, including efficient energy consumption and model constraints due to limited processing capacity and memory

**Chair: Sharon Chiang, MD, PhD**

**Vice Chair: Ankit Khambhati, PhD**

## Program

Introduction | Sharon Chiang, MD, PhD

Closed-loop Deep Brain Stimulation for the Improvement of Neurological and Psychiatric Disorders | Aysegul Gunduz, PhD

Computationally Efficient Neural Network Classifiers for Therapy: A Case Study in Sleep-stage-based Adaptive Neuromodulation | Timothy Denison, PhD; and Ali Kavooosi, BA

Epilepsy Brain Co-processors: Integration of Implants, Wearables, and Off-the-Body Computing for Epilepsy Applications | Gregory Worrell, MD, PhD

## Education Credit

1.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023-accredited](https://aesnet.org/AES2023-accredited) for a complete list of accredited sessions.

7:00–8:30 AM

## SIG | Developmental and Epileptic Encephalopathies (DEE): Opportunities and Discoveries from Bench to Bedside

Convention Center, WF1, Tangerine Ballroom, Level 2

 Digital Select  CME & CE

### Overview

Developmental and Epileptic Encephalopathies (DEEs) are amongst the most severe of the epilepsies but hold much promise in terms of potential therapies. As the majority of DEEs are monogenic, they represent targets for drug development and the future of precision medicine.

The discovery and classification of an increasing number of developmental and epileptic encephalopathies represent an everchanging landscape of potential targets for gene therapies, which we discuss through a review of current animal models, therapies, and human trials, as well as the development of precision medicine, in DEE.

We also review current and upcoming gene therapy trials and the lessons learned from ongoing DEE trials in humans.

## Learning Objectives

Following participation in this activity, participants will be able to:

- Appraise the current gene editing therapies available for the treatment of DEEs
- Discuss the lessons learned from ongoing human trials of precision medicine in humans with DEEs
- Review current animal models of DEE and the expansion of drug repurposing for DEEs

**Chair: Anthony Fine, MD**

**Vice Chair: Elia Pestana Knight, MD, FACNS, FAES**

## Program

Introduction | Anthony Fine, MD

The Role of Animal Models in Drug Repurposing for DEEs | Matthew Weston, PhD

Current Gene Editing Therapies for DEEs and Lessons Learned from Ongoing Human Trials | Linda Laux, MD

The Promise of Precision Medicine: Why Don't Therapies Always Work as Expected? | Stephane Auvin, MD, PhD, FAES

Panel Discussion | All Speakers

## Education Credit

1.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023-accredited](https://aesnet.org/AES2023-accredited) for a complete list of accredited sessions.

7:00–8:30 AM

## SIG | Epilepsy and Aging: Unique Aspects of Epilepsy in Aging

Convention Center, W313, Level 3

 CME & CE

### Overview

Over 100,000 older adults are estimated to develop epilepsy annually in the U.S. Older adults with epilepsy have unique, unmet needs, and the number of older individuals with epilepsy continues to grow as the population ages in the U.S. and worldwide. Just as there is no one-size-fits-all treatment for younger people with epilepsy, older adults with epilepsy need additional personalized treatment for their individual problems. Particular considerations of utmost importance to older individuals with epilepsy include elevated mortality beyond Sudden Unexplained Death in Epilepsy (SUDEP), the overlap of neurodegenerative disorders with epilepsy, and the need to tailor treatment for stage of life.



The Aging SIG 2023 explores unique aspects of epilepsy in the aging population, framed by a case presentation of an older adult with new seizures and many questions. We present the case of a 65-year-old woman who develops unexplained epilepsy, and experiences significant medication side effects. After some online reading, she has concerns about her risk for dementia and for early mortality due to her epilepsy. We explore unique aspects of epilepsy in older adults, including pharmacokinetics, cognitive impairment, and mortality.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Describe high-frequency oscillations and seizures in animal models of Alzheimer's disease
- Discuss the impact of epilepsy on mortality in older adults
- Evaluate the importance of age-related pharmacokinetic considerations on antiseizure drug efficacy in the treatment of older adults with epilepsy

**Chair: Emily Johnson, MD, FAES**

**Vice Chair: Melissa Barker-Haliski, PhD**

### Program

Introduction | Emily Johnson, MD, FAES

Case Presentation | Anna Patnaik, MD

High-frequency Oscillations in Alzheimer's Disease | Christos Lisgaras, PhD

Mortality in Epilepsy in Older Adults | Ifrah Zawar, MD

Pharmacokinetic Considerations in Older Adults with Epilepsy | Angela Birnbaum, PhD, FAES

### Education Credit

1.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](https://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

7:00–8:30 AM

## SIG | Neuropsychology: Mapping Cognition in Epilepsy: From the Lab to the Clinic

Convention Center, W311 A, Level 3



CME & CE

### Overview

Surgical resection is effective in treating pharmaco-resistant focal epilepsy and yet carries substantial risk of impairing cognition. Reliable pre-surgical guides are necessary to predict and minimize the adverse impact of surgery on cognitive functioning. Neuropsychological assessment and the intracarotid amobarbital procedure can be used

for this purpose; however, less invasive methods with better predictive power are necessary. Several methods of functional mapping are filling this gap. Functional mapping methods are essential to characterize the neural underpinnings of cognition across the lifespan.

Advanced functional mapping methods are necessary for the comprehensive presurgical evaluation of cognition in epilepsy. These methods include functional magnetic resonance imaging (fMRI), subdural mapping, and stereoelectroencephalography (sEEG). Bilingualism and other sociocultural characteristics can affect neuroplasticity and may influence functional mapping in epilepsy. These factors need to be incorporated both in mapping methods, conceptualization and interpretation of results.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Investigate how neuroimaging research has influenced our understanding of cognition in epilepsy and examine the current role of clinical fMRI in the presurgical evaluation
- Review the benefits and limitations of the subdural and stereoelectroencephalographic (sEEG) methods of functional mapping
- Examine differences between language organization in the bilingual versus monolingual brain, factors that modulate the neuroanatomical representation of multiple languages, and strategies for mapping multiple languages during pre-surgical planning

**Chair: Jana Jones, PhD, FAES**

**Vice Chair: Leigh Sepeta, PhD**

### Program

Introduction | Jana Jones, PhD, FAES

Functional Mapping of Memory and Language Circuits in Pediatric Epilepsy | Freya Prentice, MD

Clinical Language fMRI in Epilepsy: Current Practices and Opportunities | Christopher Benjamin, PhD

Farewell Subdural, Hello sEEG Language Mapping: Pros, Cons and Unknowns | Marla Hamberger, PhD

Mapping Cognition Using Stereo EEG in Pediatric Epilepsy | Donald Bearden, PhD

Theoretical and Practical Considerations for Language Mapping in Bilingual Patients | Alena Stasenka, PhD

### Education Credit

1.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](https://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

## Program | Monday, December 4

8:00 AM – 2:00 PM

### Poster Session 3

Author Present Time: 12:00 – 1:45 PM

Convention Center, West Hall C, Level 2 (Enter through West Hall D1, Level 2 between 8:00 – 10:00 AM)

*This poster session closes promptly at 2:00 PM.*

#### Overview

Posters are grouped by topic category at various times throughout the meeting. Poster authors are available for discussion from 12:00 – 1:45 PM.

8:00 AM – 5:00 PM

### Other Programming | Scientific Exhibits

Convention Center

See page 111 for locations and other details.

9:00 – 10:30 AM

### Special Lecture | AES-NAEC Joint Coding Session: Coding and Reimbursement Policies of Interest to Epileptologists and Epilepsy Centers

Convention Center, WF2, Tangerine Ballroom, Level 2



CME

#### Overview

In order to improve insurance coverage and reimbursement for patient services, epileptologists and members of the epilepsy center multidisciplinary team should understand appropriate reporting of Current Procedural Terminology (CPT) codes and documentation, in addition to public and private insurance policies. Guidance on how to report CPT codes for neurophysiology and evaluation and management services and how to meet Medicare and other insurance policy requirements should result in fewer denials and better coverage and payment for services provided.

The session provides details on the new CPT codes for telehealth services in 2024 and an update in Medicare telehealth reimbursement policies. Guidance on coding for evaluation and management services, including newer codes for transitional care and chronic disease management in the outpatient setting, are provided. Highlights of the major regulatory changes included in the Medicare Physician Fee Schedule going into effect on January 1, 2024, are explained. The session concludes with a panel discussion with the speakers sharing how their institutions handle coding and reimbursement issues for both inpatient and outpatient neurophysiology services.

#### Learning Objectives

Following participation in this activity, participants will be able to:

- Preview new Telehealth CPT codes and Medicare telehealth policies for 2024
- Review evaluation and management coding strategies for epileptologists and epilepsy centers to use for patients seen in both the outpatient and inpatient settings, with a focus on new chronic disease management codes
- Review regulatory requirements included in the FY 2024 Medicare Physician Fee Schedule final rule
- Provide different epilepsy center strategies and approaches to common coding and policy questions

**Chair: Susan Herman, MD**

#### Program

Introduction | Susan Herman, MD

New Telehealth CPT Codes and Medicare Polices for 2024 | Marc Nuwer, MD, PhD, FAAN, FACNS, FANA, FAES

Optimizing Coding for Evaluation and Management Services in the EMU and Outpatient Clinic | Susan Herman, MD

What the Medicare Data Tells us About EEG/VEEG Monitoring and Other Neurophysiology Services and An Update on Medicare Payment Rates and Policies for 2024 | Greg Barkley, MD

Solutions to Common Epilepsy Center Coding and Insurance Questions | Jonathan Edwards, MD, MBA

Panel Discussion | All Faculty

#### Education Credit

1.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](https://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

9:00 – 10:30 AM

### Special Lecture | ILAE-IBE Actioning the Action Plan: Interactive Discussion on Driving Forward the 2022-2031 Intersectoral Global Action Plan on Epilepsy and Other Neurological Disorders (IGAP)

Convention Center, W230 A/B, Level 2

#### Overview

The 2022-2031 Intersectoral Global Action Plan on Epilepsy and Other Neurological Disorders was approved by all Member States (governments) at the World Health Assembly in May 2022. The Global Plan inspires a decade of action to achieve the highest possible level of health, well-being, and opportunities for people with neurological disorders, particularly high-burden conditions such as

9:00 – 11:30 AM

## Epilepsy Therapies Symposium | Do We Really “Outgrow” Seizures?

Convention Center, W415 A/B, Valencia, Level 4

*Special Presentation: J. Kiffin Penry Award for Excellence in Epilepsy Care*

 Digital Select  CME & CE

### Overview

Initiation and maintenance of antiseizure therapy can be relatively straightforward in most patients. Depending on epilepsy type, patients may be more or less likely to enter remission. Yet, medication discontinuation may be wrought with challenges. Is a drug discontinuation appropriate given the seizure or epilepsy type or the patient’s circumstances? How does one counsel patients about the risks of seizure recurrence and long-term outcomes? Additionally, patients who enter remission following surgical remediation of their epilepsy represent a distinct category and medication discontinuation is influenced by a number of factors. Another important consideration is comorbidities that often affect medication choices and maintenance. Practitioners often face the following questions:

1. Is it appropriate or safe to discontinue antiseizure medications?
2. What are the seizure recurrence risks and long-term outcomes?

The Epilepsy Therapies Symposium discusses several most common clinical scenarios to address these questions, and provides up-to-date information and tools for clinical practice. The goal of the Epilepsy Therapy Symposium is to review the current state of knowledge and address some of the most common issues related to medication discontinuation and long-term outcomes in varied scenarios in the clinical practice of epilepsy.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Apply learned information to appropriately counsel patients about the implication of their remitted epilepsy on risk of seizure recurrence throughout their lifespan
- Evaluate the conditions under which medications can be discontinued in psychogenic non-epileptic events
- Recognize the usefulness of artificial intelligence-based data analyses for prediction of seizure recurrences in response to treatment
- Apply learned information to screen for and consider comorbidities in the management of patients with epilepsy
- Apply learned information to counsel patients about anticipated long-term outcomes

**Co-Chairs: Alica Goldman, MD, PhD, FAES; and Dean Naritoku, MD, FAES**

epilepsy, stroke, dementia, meningitis, migraine, as well as birth-related and other brain injuries. However, it is difficult for all members of the community, health care professionals and patients, to understand the implications and how this may enhance access to care.

The focus of the session is to bring general awareness to a wide range of professionals of the IGAP, and how we are moving forward with the patient community in implementation. This session informs attendees of progress made so far toward the objectives of the IGAP, how this applies globally in whatever the resource setting, and what examples may exist to help achieve the objectives of IGAP, allowing us to move toward the ILAE/IBE vision of a world where no person’s life is limited by epilepsy .

### Learning Objectives

Following participation in this activity, participants will be able to:

- Recognize the most eminent needs of people with epilepsy
- Increase knowledge about the IGAP and progress to date
- Increase, through interactive discussions, participants’ understanding of policy advocacy, health system strengthening, and the intersectoral actions that will be needed to achieve the goals of the IGAP

**Co-Chairs: Helen Cross, MD, MBChB, PhD; and Francesca Sofia, PhD**

### Program

Introduction | Helen Cross, MD, MBChB, PhD

Overview of the Intersectoral Global Action Plan on Epilepsy and Other Neurological Disorders (IGAP) and Findings from the Global Baseline IGAP Target Survey: How Close are We to Achieving the Ten IGAP Targets? | Helen Cross, MD, MBChB, PhD

What are the Major Needs and Struggles of People with Epilepsy Globally? An Update on the Pursuit of Solutions (IBE) | Francesca Sofia, PhD

Building Effective Service Models and Care Pathways: Would One Size Fit All? | Samuel Wiebe, MD

### Interactive Breakout Groups

**Group 1:** Best Approaches for Engaging with Government? Epilepsy as an Entry Point? Other Neurological Disorders as the Entry Point? Finding Strategies that Work | Helen Cross, MD, MBChB; and Francesca Sofia, PhD

**Group 2:** What are the Biggest Barriers to Accessing Care for People with Epilepsy? Finding Strategies that Work | Samuel Wiebe, MD, FCAHS; and Archana Patel, MD, MPH

**Group 3:** Intersectoral Engagement: What is Needed and What Works? | Julie Hall, MBBS; and Donna Walsh

Feedback from Working Groups | Alla Guekht, MD, PhD

Panel Discussion | All Faculty

# Program | Monday, December 4

## Program

Introduction | Alica Goldman, MD, PhD, FAES

Remission in Childhood Epilepsies and Implications for Adulthood | Adam Ostendorf, MD

Antiseizure Medication Discontinuation in Psychogenic Non-epileptic Events | Genna Waldman, MD

Remissions in Surgically Treated Medically Refractory Epilepsies | Lara Jehi, MD

When Seizures Remit but Comorbidities Remain | Mohammed Ilyas, MD, FACNS

Seizure Recurrence and Long-term Outcome after Discontinuation of Medications | Dean Naritoku, MD, FAES

Panel Discussion | All Faculty

## Education Credit

2.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](http://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

9:00 – 11:30 AM

## Translational Research Symposium | Data Sharing for Improving and Accelerating Translational Outcomes

Convention Center, W415 C/D, Valencia, Level 4



## Overview

Increased sharing of clinical and research data is critical to improve and accelerate clinical innovation. However, data sharing is complicated by issues such as patient privacy, sample bias, incentives, and commercialization. Large, diverse datasets that are representative of our diverse population of patients and health care providers are critical for innovation in many ways. For example, they are necessary for the development of machine learning algorithms to aid epilepsy treatment; for adequately powering research studies (especially rare diseases); and for developing evidence-based, equitable health care practices. In recent years, there has been a growing amount of epilepsy-related data available for research and development, but much work remains to be done.

This symposium focuses on data sharing challenges relevant to clinical translation and highlights innovative models that address these issues in creative and effective ways. It highlights some issues with data sharing particularly relevant to translational research (e.g., building diverse datasets, commercialization) and presents several innovative models of data sharing that tackle these issues.

## Learning Objectives

Following participation in this activity, participants will be able to:

- Review the value of data sharing for research reproducibility, sufficient statistical power, studying rare conditions, and representative sampling
- Evaluate how commercialization can affect data sharing licensing and obligations
- Provide multiple models for sharing clinical and research data in both non-profit and commercial enterprises

**Co-Chairs: Terence O'Brien, MD, FRACP, FAES; and David Groppe, PhD**

## Program

Introduction | David Groppe, PhD

ENIGMA-Epilepsy as a Model for Data Sharing and Collaboration | Carrie McDonald, PhD, FAES

Navigating NIH's New Rules for Data Sharing when Doing Translational Research | Brian Klein, PhD

Building Bridges Between Patients, Families, Health Systems, Industry, and Academia to Promote Data Sharing | Brandy Fureman, PhD

A Platform for Large-scale Multi-health System Data Sharing | Sonya Makhni, MD, MS, MBA

Panel Discussion | All Faculty

10:00 AM – 2:00 PM

## Exhibit Hall

Convention Center, West Hall C, Level 2

2:15 – 3:45 PM

## Special Lecture | Lombroso Lecture: The Path to Personalized Treatments for Epilepsies – Translation, Biomarkers and the Role of the Community

Convention Center, W415 A/B, Valencia, Level 4

*Special Presentations: Basic Science and Clinical Science Research Awards*



## Overview

The Lombroso lecture discusses recent advances and emerging strategies for the development of personalized treatments for epilepsies across the lifespan. The importance of collaborations, team science research, and data sharing within the epilepsy research community to move the field forward are highlighted.

The Lombroso lecture addresses the importance of developing personalized treatments for epilepsies across the lifespan. Examples from models of infantile spasms and

3:15–5:30 PM

## Pediatric Epilepsy Highlights

Convention Center, WF4, Tangerine Ballroom, Level 2

### Overview

This session showcases selected scientific abstracts focused on topics in clinical care and research in pediatric epilepsy. Authors present an 8-minute overview of their work. Presentations are chosen from all submitted abstracts. Participants view posters and meet the authors at the end of the program.

**Moderators: Sarah Kelley, MD, FAES; and Rani Singh, MD**

### Program

See page 39 for full poster listing.

4:00–6:00 PM

## Special Lecture | Dialogues to Transform Epilepsy: Cutting-edge Advances in Neuroscience to Improve Epilepsy Treatment

Convention Center, W415 C/D, Valencia, Level 4



**Digital Select**

### Overview

Approximately one third of patients with epilepsy do not respond to current pharmacotherapies and we still do not understand what causes seizures to start or what molecular and cellular changes transform the healthy brain into a brain that generates seizures. While significant advances have been made in how we think about and treat epilepsy, basic science discoveries outside of the field have the potential to improve our understanding of the epileptic brain and our ability to develop new therapies. This session brings in leading researchers from outside the field of epilepsy whose work has the promise to transform how we think about and treat epilepsy.

Dialogues to Transform Epilepsy is a special lecture that brings leaders in cutting-edge neuroscience to the epilepsy research community to transform how we think about and treat epilepsy. These thought leaders share their exciting research and unique perspectives on how they think about fundamental aspects of brain development, function, and disease. This year's session combines two exciting subjects, 1) metabolism and its effects on brain function and synaptic activity, and 2) behavioral comorbidities associated with epilepsy and automated video analysis tools to understand complex behaviors. Our speakers share their knowledge and current research, and suggest strategies for the epilepsy research community to help leverage their findings to improve patient care. Experts in the field of epilepsy research also help integrate the discussion with a focus on transformative dialogue.

post-traumatic epilepsy are presented to demonstrate the importance of developing better therapies that are age, sex, and syndrome-appropriate, as well as illustrate the importance of biomarker-guided strategies to prevent or treat seizures and epilepsies. The challenges in translating preclinical findings to the clinics are discussed and some of the solutions from translational initiatives, such as the AES/ILAE Joint Translational Task Force will be presented.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Explain why personalized treatments could be more effective in treating certain epilepsies and individuals
- Describe the value of developing biomarkers to guide treatment selection and implementation for seizures and epilepsies
- Recognize available resources and initiatives developed to assist with translation and validation of research findings

### Program

Basic Science Research Presentation: From Channelopathy to Gene Therapy for Refractory Epilepsy | Dimitri M. Kullmann, FRS, FMedSci, DPhil, MAE

Clinical Science Research Presentation: From JME to AD: Imaging Through the Ages | Matthias J. Koepp, MD, PhD

Lombroso Lecture: The Path to Personalized Treatments for Epilepsies – Translation, Biomarkers and the Role of the Community | Aristeia Galanopoulou, MD, PhD, FAES

3:15–5:30 PM

## Platform D | Epilepsy Therapies

Convention Center, W311 B–D, Level 3

**Moderators: Melissa Barker-Haliski, PhD; and Mohamad Koubeissi, MD, MA, FAAN, FANA, FAES**

## Platform E | Surgery

Convention Center, W311 F - H, Level 3

**Moderators: Ruba Al-Ramadhani, MD; and Chengyuan Wu, MD, MEng**

## Platform F | Computational Approaches

Convention Center, W312 A - C, Level 3

**Moderators: Jane Allendorfer, PhD, FAES; and Jon Kleen, MD, PhD**

There are three concurrent sessions of selected key scientific abstracts. Authors present a 10-minute overview of their work followed by a five-minute Q&A session.

See page 43 for full platform listing.

# Program | Monday, December 4

## Learning Objectives

Following participation in this activity, participants will be able to:

- Achieve an understanding of how metabolic systems are controlled, how they affect neurotransmission, and how they can impact epilepsy and brain function
- Integrate existing knowledge of circuit dysfunction underlying neurological pathologies that are comorbidities of epilepsy and gain exposure to tools to perform automated behavioral analysis
- Be able to apply exciting new techniques in metabolism and automated behavioral analysis to better understand epilepsy and improve the lives of patients with epilepsy

**Chair: Chris Dulla, PhD**

## Program

Introduction | Chris Dulla, PhD

The Relevance of Metabolism to the Epileptic Brain | Felix Chan, PhD

Metabolic Control of Synapse Function | Tim Ryan, PhD

Behavioral and Cognitive Comorbidities and Epileptic Brain Circuits | Zoe Christenson-Wick, PhD

Development and Function of Pre-frontal Circuits for Threat Avoidance | Laura DeNardo, PhD

How to Utilize Cutting-edge Basic Science to Transform Epilepsy Treatment | Amy Brooks-Kayal, MD, FAES

Panel Discussion | All Faculty

4:00–6:30 PM

## Special Lecture | Clinical Practice Guidelines: Why, What, How

Convention Center, WF1, Tangerine Ballroom, Level 2

 Digital Select  CME & CE

### Overview

The lack of standardization in clinical decision making among health care providers can lead to inconsistent patient outcomes, higher costs, and lower quality of care. Clinical practice guidelines (CPGs) provide evidence-based recommendations for providers, which in turn promotes efficient care. CPGs can affect all aspects of epilepsy treatment, from how physicians make decisions to how insurance companies make reimbursements. However, development and implementation of CPGs can be challenging, and there is a need for ongoing evaluation and refinement of CPGs to ensure their effectiveness. Currently, AES is leading two CPGs in development, and co-developing additional CPGs with other societies, as well as endorsing guidelines from other societies on a regular basis. AES and other organizations have procedures for developing CPGs that are similar, but not identical.

Moreover, different countries have different methods for developing and using CPGs. Many AES members are unfamiliar with the methods by which CPGs are developed, and how the AES process is different from that of other societies and other countries. In addition, many members are unsure how to incorporate guidelines into clinical practice.

This symposium introduces attendees to CPG, including guideline development, comparisons of guideline development processes, incorporating guidelines into clinical practice, and the limitations of guidelines particularly when randomized controlled trials are not available.

## Learning Objectives

Following participation in this activity, participants will be able to:

- Appraise how guidelines are developed
- Describe CPG development methodology
- Implement CPGs in clinical practice

**Co-Chairs: Aatif Husain, MD; and Emily Johnson, MD, FAES**

## Program

Introduction | Aatif Husain, MD

Why are Guidelines Important? | Renad Abu-Sawwa, PharmD

What is a Guideline (Overview of Development)? | Aatif Husain, MD

US vs. International Guidelines: Similarities and Differences | Paul Cooper, DM, MA, FRCP, FAES

How to Incorporate Guidelines into Clinical Practice | Karen Skjei, MD, FAES

What are the Limitations of Clinical Practice Guidelines? | Emily Johnson, MD, FAES

Panel Discussion | All Faculty

## Education Credit

2.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](https://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

6:00–7:30 PM

## SIG | Basic Mechanisms and Neuroscience of Epilepsy: Human iPSCs-based Neuron and Brain Organoid Models to Dissect Genetic Epilepsy

Convention Center, W311 F–H, Level 3

### Overview

A major challenge in implementing a precision medicine approach to control seizures is establishing faithful models of the diseases, which are essential to help understand disease mechanisms and advance preclinical drug development. Animal models have been the gold standard for years, and have led to many important discoveries. However, a mouse is not a tiny human with a tail. Significant differences exist between mice and humans that hinder the accurate modeling of important aspects of many types of genetic epilepsies. An outstanding problem in the field is what alternative models can be developed to more faithfully model epilepsy to advance precision interventions for epilepsy?

Recent developments in the human induced pluripotent stem cells (iPSCs)-derived neuron and organoid models provide transformative tools for us to dissect genetic epilepsies with human cells. This session highlights the current progresses in this emerging field. Panelists, in an interactive seminar talk format, discuss cutting-edge technologies and present mechanistic investigations into how genetic variants identified from patients may lead to an epileptic network. Panelists discuss how phenotypes identified in the human cell-based models could be targeted to develop next-generation interventions that advance treatments for genetic epilepsies.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Identify the pros and cons of using human iPSCs-derived neurons and organoids to model different types of genetic epilepsies
- Review the use of different organoids (undirected, regionalized, and single rosette-based) as well as assembloids to understand the pathological mechanisms of genetic epilepsies
- Recognize the utility of human cells carrying epilepsy-associated genetic mutations to advance preclinical drug discovery for sustainable control of seizures in a precision medicine manner

**Chair:** Yang Yang, PhD

**Vice Chair:** Lena Nguyen, PhD

### Program

Introduction: Modeling Genetic Epilepsies | Yang Yang, PhD

Building an Epilepsy Circuit Using Human iPSC-derived Brain Organoids | Chris Makinson, PhD

Modeling ARX Poly-alanine Mutations in Human Neural Assembloids | Jenny Hsieh, PhD

Single Rosette-derived Telencephalic Organoids for Modeling Neurodevelopmental Disorders | Alex Shcheglovitov, PhD

Panel Discussion | Lena Nguyen, PhD; and Michelle Antoine, PhD

6:00–7:30 PM

## SIG | Children's Hour: Pediatric Epilepsy Surgery: 'Go Big or Go Home' vs. Staged Approaches

Convention Center, W230 A/B, Level 2



### Overview

In children undergoing epilepsy surgery, a unique challenge arises in complex cases with extensive pathology or multi-lesional etiology. Two strategies appear radically opposed: one camp will aggressively pursue complete seizure freedom in the first surgery, while others opt for a staged approach with repeated smaller surgeries. In addition to evidence-based medicine, parental factors, surgical aspects, provider experience, and institutional expertise inform the decision-making.

In pediatric epilepsy surgery, while targeting the entire epileptogenic zone for removal is ideal, a staged approach rather than a single complete resection may be needed. Factors that play a role in determining the surgical plan include: the potential for post-operative deficits, the ability to delineate the surgical target and eloquent cortex, clinical and developmental urgency, and institutional preferences. This Children's Hour SIG aims to explore how these two approaches balance evidence-based medicine with the biopsychosocial context and preferences of patients and providers. Additionally, each speaker will support the learning objectives with a case that illustrates the surgical trajectory chosen.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Outline the risks and benefits of an aggressive and complete resection as a goal of pediatric epilepsy surgery
- Describe current insights into developmental and epilepsy outcomes in partial, staged or repeated small resections in surgical treatment of refractory epilepsy in children
- Assess surgical challenges inherent to repeat surgery, including practical aspects of re-operation

**Chair:** Jurriaan Peters, MD, PhD, FAES

**Vice Chair:** Ittai Bushlin, MD, PhD

# Program | Monday, December 4

## Program

Introduction | Jurriaan Peters, MD, PhD, FAES

Go Big or Go Home: Aggressive and Complete Resection Should be the Goal of Every Intervention for Pediatric Epilepsy | Shaun Hussain, MD

Staged Approach to Pediatric Epilepsy Surgery: Justification, Seizure Outcomes, and Developmental Benefits | Ravindra Arya, MD, DM, FAES

Balancing Risks and Rewards in Pediatric Epilepsy Surgery: Technical Considerations of Complete Resection versus Staged Approaches | Allyson Alexander, MD, PhD

## Education Credit

1.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](https://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

6:00 – 7:30 PM

## SIG | Cognitive and Behavioral Treatment for Epilepsy: Anxiety in Epilepsy – Evidence-based Practice for the Epilepsy Clinic

Convention Center, W313, Level 3



CME & CE

### Overview

Although anxiety is highly prevalent in persons with epilepsy, it is often overlooked in the day-to-day management of epilepsy. Consequently, patients are experiencing poorer health outcomes and quality of life. This session addresses the problem of underdiagnosing and treating anxiety in people with epilepsy. We review the research and best practices for clinical care and management of anxiety in an epilepsy clinic and share evidence-based strategies (i.e., CBT) and resources that providers can use to address this comorbid psychiatric condition in persons with epilepsy.

The SIG meeting includes a presentation from an epilepsy psychologist on the epidemiology of anxiety in youth and young adults, epilepsy-related predictors of anxiety, and evidence-based practice (i.e., CBT) for the management of anxiety. The meeting is also dedicated to a discussion about a neurologist's care model for managing anxiety in an epilepsy clinic and research on the bidirectional relationship between anxiety and epilepsy. Both discussions include research findings, clinical experiences, and concrete strategies to help providers manage anxiety in clinical care.

## Learning Objectives

Following participation in this activity, participants will be able to:

- Describe the rationale, evidence base, and applications of CBT to manage anxiety in persons with epilepsy
- Demonstrate CBT-based skills used to manage anxiety to educate patients and create therapeutic buy-in with persons with epilepsy
- Identify key components of a care model (e.g., screening, medication management) for the management of anxiety in an epilepsy clinic

**Chair:** Tanya Spruill, PhD

**Vice Chair:** Hillary Kimbley, PhD

## Program

Anxiety in Epilepsy: Evidence-based Practice for the Epilepsy Clinic | Hillary Kimbley, PhD

CBT in the Management of Anxiety in Youth and Young Adults with Epilepsy | Lisa Clifford, PhD

Managing Anxiety in the Epilepsy Clinic: Care Options for Neurologists | Heidi Munger Clay, MD, MPH, FACNS, FAES

Panel Discussion of Anxiety in Epilepsy | Tanya Spruill, PhD

## Education Credit

1.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](https://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

6:00 – 7:30 PM

## SIG | Neuropharmacology: Medication Misadventures – Management of Antiseizure Medication Adverse Effects

Convention Center, W230 C/D, Level 2

### Overview

Adverse effects to antiseizure medications (ASMs) are common, with over 60% of patients with epilepsy reporting at least one adverse drug reaction to their medications. The WHO defines adverse drug reactions as “a response to a medicine which is noxious and unintended, and which occurs at doses normally used in man.” Common challenges facing adult and pediatric epileptologists include addressing drug rashes, assessing cross sensitivity, considering whether cardiac monitoring is required for certain drugs, and managing behavioral and psychiatric adverse effects. Anticipating the adverse effects of ASMs and developing a structured plan for prevention, monitoring and management, is imperative to optimizing pharmacologic treatment regimens for patients with epilepsy.



Antiseizure medications (ASMs) are the mainstay of treatment for patients with epilepsy. However adverse effects from ASMs remain one of the leading causes of impaired quality of life, poor patient adherence, treatment failures, and increased risk of mortality and morbidity. This SIG takes an interactive case-based approach to recognizing and managing ASM adverse reactions, with a focus on hypersensitivity reactions, cardiac, behavioral, and psychiatric side effects.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Recognize and anticipate adverse drug reactions associated with antiseizure medications
- Evaluate and manage antiseizure medication adverse reactions including drug rashes, cardiac, behavioral, and psychiatric side effects
- Integrate monitoring of antiseizure medication adverse effects into clinical practice

**Chair: Proleta Datta, MD, PhD**

**Vice Chair: Andrea Calvert, PharmD, BCPPS**

### Program

Introduction | Proleta Datta, MD, PhD

Rashes and Hypersensitivity Reactions Associated with Antiseizure Medications | Ram Mani, MD

Evaluation and Management of Cardiac Side Effects of Antiseizure Medications | Maromi Nei, MD

Addressing the Challenges of Behavioral and Psychiatric Side Effects Associated with Antiseizure Medications | Danielle Stutzman, PharmD, BCPP

6:00–7:30 PM

## SIG | Status Epilepticus: Controversies in Status Epilepticus: Treat Aggressively or Not?

Convention Center, WF3, Tangerine Ballroom, Level 2

### Overview

While Status Epilepticus is a neurological emergency, there is no standard algorithm for treatment of Non-Convulsive Status Epilepticus (NCSE) or Focal-aware Status Epilepticus (FaSE). This interactive session challenges different institutional approaches, which range from conservative to aggressive, and are largely based on expert opinion. Different clinical scenarios of NCSE and FaSE require complex treatment approaches.

This SIG provides a platform for discussion of available basic science and clinical evidence, and offers new perspectives regarding treatment and outcomes. While there are multiple reasons for choosing different therapeutic interventions, after participating in this SIG, the audience is expected to adjust and stratify the clinical treatment according to the complexity of this medical condition.

The first topic debated by two opposing sides is how aggressively should NCSE be treated in critically ill patients. Clinical cases with different etiologies and underlying pathophysiology of NCSE are presented, along with their specific electroencephalographic (EEG) patterns. Modern and rapid tools for diagnosing NCSE are introduced, and their value in guiding treatment are judged. Specific treatment strategies, steps and doses are debated from the perspective of clinical outcomes in this population. The second topic discussed is how aggressively should FaSE be treated. One side contends that FaSE should be treated immediately until cessation of SE and lists therapeutic strategies for refractory cases, while at the same time providing evidence of long-term outcomes in different populations. The other side argues that certain treatments for SE have side effects, and in addition to discussing specific cases, provides evidence regarding how treatment of underlying etiology rather than SE influences the outcome.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Discuss modern and rapid tools for diagnosis of NCSE in critically ill patients, and apply a stepwise approach to specific treatments, with focus on clinical outcome
- Identify clinical characteristics of refractory FaSE based on its etiology, and discuss outcomes based on specific treatments
- Adjust and stratify diagnostic approach and clinical treatment of NCSE and FaSE according to the full spectrum of case complexity

**Chair: Victor Ferastraoaru, MD, FAES**

**Vice Chair: Sándor Beniczky, MD, PhD, FEAN**

### Program

NCSE in Critically Ill Patients Should be Treated Aggressively | Eugen Trinká, MD, MSc, FRCP

NCSE in Critically Ill Patients Should NOT be Treated Aggressively | Sándor Beniczky, MD, PhD, FEAN

Focal-aware SE Should be Treated Aggressively | Simona Proteasa, MD

Focal-aware SE Should NOT be Treated Aggressively | Victor Ferastraoaru, MD, FAES

# Program | Tuesday, December 5

7:00–8:30 AM

## **SIG | Engineering and Neurostimulation: Advances in the Surgical Treatment of Children with Refractory Epilepsy**

Convention Center, W230 A/B, Level 2

### **Overview**

In children with refractory epilepsy, surgery can significantly reduce seizures and improve quality of life. However, there are many unique factors that can limit treatment options in this population. The child's age and degree of neurodevelopmental plasticity, as well as the physical characteristics of the brain (particularly in very young children), must be taken into account. Moreover, it is not uncommon for pediatric patients with focal epilepsy to be imaging-negative, which creates challenges for localization. There are also unique types of epilepsy in this population which frequently cause generalized, refractory seizures, such as Infantile Epileptic Spasms Syndrome and Lennox-Gastaut Syndrome.

Pediatric epilepsy surgery is associated with unique challenges, such as considerations of neurodevelopmental plasticity and other age-related factors, as well as the commonality of imaging negative and generalized epilepsies. Neurostimulation treatments, computational biomarkers, and less-invasive approaches offer unique solutions that could produce groundbreaking advances in this clinical procedure. This session highlights these novel tools, including advances in technology for neural stimulation, noninvasive methods for presurgical evaluation, and biomarkers for predicting surgical outcomes.

### **Learning Objectives**

Following participation in this activity, participants will be able to:

- Describe current technologies for neurostimulation and special considerations in the pediatric population
- Discuss the evidence for seizure localization using non-invasive imaging modalities and describe how these techniques can impact surgical candidacy and outcomes
- Summarize recent advances in biomarkers for predicting response to surgical treatment, particularly related to neurostimulation

**Chair: Beth Lopour, PhD, FAES**

**Vice Chair: Sridevi Sarma, PhD**

### **Program**

Introduction | Beth Lopour, PhD, FAES

Novel Neurotechnologies in Pediatric Epilepsy Surgery | Taylor Abel, MD, FAES

Using Resting-state fMRI to Locate the Seizure Onset Zone to Improve Pediatric Epilepsy Surgery Outcomes: What is Working? What is on the Horizon? | Emilio Cediel, MD  
Predicting Seizure Responsiveness to VNS in Children Using Connectomic Profiling | George Ibrahim, MD, PhD, FRCSC, FAANS, FACS

7:00–8:30 AM

## **SIG | Epilepsy Education: Epilepsy Education Throughout the Training Pipeline**

Convention Center, W313, Level 3

### **Overview**

Epilepsy education occurs throughout the training pipeline and impacts interests in pursuing epilepsy fellowship, and ultimately, epilepsy related careers. Epileptologists play critical roles in the education of medical students, residents, and fellows – but often lack a framework specific to each target audience that captures interest, motivates interest in epilepsy, and teaches towards minimum competency goals. Frameworks for approaching trainees at various stages in the medical education pipeline must be designed to attract the next generation of epileptologists.

This session examines the structure, successes, and limitations of novel and successful epilepsy educational programs and discuss ways in which their successes and limitations can inform the epilepsy educator's targeted approach to trainees at varying stages, and ultimately improve knowledge of and interest in epilepsy with the goal of recruiting future epileptologists and epilepsy researchers. This SIG examines features and structures of four epilepsy-specific educational programs targeting trainees, followed by audience discussion, with the objective of identifying core components that could be adapted to the broader epilepsy education community.

### **Learning Objectives**

Following participation in this activity, participants will be able to:

- Define strategies for engaging and attracting future epileptologists and epilepsy researchers from the medical education pipeline
- Identify epilepsy-related educational needs of medical students, residents and fellows, and the ultimate minimum competency goals of future epileptologists
- Identify and adapt components from successful epilepsy educational programs that can be incorporated into the participant's educational program

**Chair: Jay Pathmanathan, MD, PhD, FAES**

**Vice Chair: Dara Albert, DO, MEd, FAES**

## Program

Introduction | Jay Pathmanathan, MD, PhD, FAES

Podcasts in Epilepsy Education: Raising Awareness and Attracting the Next Generation of Epileptologists | Fabio Nascimento, MD

Insights and Outcomes from the AES Resident EEG Course | Dana Harrar, MD, PhD

History and Mission of the J. Kiffin Penry Epilepsy Education Programs | Dean Naritoku, MD, FAES, FAAN

The AES Epilepsy Fellowship In-service Training Examination (EpiFITE): Insights into Our Training Outcomes | Sudha Kessler, MD, MSCE, FAES

7:00–8:30 AM

## SIG | Genetics: Clinical Genetics in 2024 – What You Need to Know

Convention Center, WF1, Tangerine Ballroom, Level 2

 Digital Select  CME & CE

### Overview

Clinical genetics has been widely adopted in epileptology. However, the vast majority of genetic variants that are identified through clinical genetic testing are classified as 'variants of uncertain significance. The inability to interpret these unclear findings from genetic testing limits clinical decision-making and can be confusing for the patient and caregivers. In addition, these ambiguous results may restrict eligibility for clinical trials of disease-modifying therapies.

People with epilepsy and a clinically identified genetic variant typically do not respond to treatment and often have severe lifelong disabilities. Rates of progression, comorbidities across the lifespan, and prognosis are poorly established. These factors challenge not only the interpretation of genetics tests and the design of personalized treatment plans but also the design of clinical trials for precision medicines. We critically discuss current best practices for using genetics to enhance clinical care and learn how to prepare ourselves to enroll patients into clinical trials in the future efficiently.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Interpret the results of clinical genetic tests better and feel empowered to design genetic-informed care paths
- Recognize approved precision medicines and the landscape of ongoing clinical trials for genetic therapies
- Recognize the genetic and clinical information to identify patients for clinical trials of precision medicines

**Chair: Dennis Lal, PhD**

**Vice Chair: Erin Heinzen, PhD, PharmD**

Registrants: Find the most up-to-date information at [aesnet.org/AES2023](https://aesnet.org/AES2023)

## Program

Introduction | Dennis Lal, PhD

Interpreting and Acting on Clinical Genetic Testing Data | James Wheless, MD

Clinical Trials in Genetic Epilepsy: Design and Considerations | Scott Demarest, MD, MSCS

Lesional Epilepsies are Genetic Epilepsies: Challenges and Opportunities Towards Precision Medicines | Stéphanie Baulac, PhD

Epilepsies Associated with CNVs: Challenges and Opportunities Towards Precision Care | Vanessa Vogel-Farley, MS

## Education Credit

1.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](https://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

7:00 – 8:30 AM

## SIG | Seizures in Autoimmune Encephalitis: Expanding the Clinical Spectrum and Recent Advances in Diagnosis and Treatment

Convention Center, W230 C/D, Level 2

 CME & CE

### Overview

A range of epilepsies with immune etiology has been recently recognized with characteristic presentations in both adults and children. Diagnosis of autoimmune encephalitis and autoimmune-associated epilepsies is rapidly increasing, with greater access to antibody testing. With the emergence of these entities, there needs to be a greater understanding of the expanding range of clinical presentations and predictors of treatment response and prognosis. Immunotherapy along with antiseizure medications are a mainstay of treatment of new onset refractory status epilepticus, and a better understanding of rational selection and duration of treatment with these treatments is needed.

The clinical spectrum of presentations of autoimmune encephalitis and epilepsy, as well as our understanding of disease mechanisms and treatment regimens, is rapidly developing. Since the characterization of anti-NMDA receptor encephalitis over a decade ago, several new clinical entities have been identified. Greater clinician awareness of newly discovered autoimmune epilepsies and their typical clinical presentations will result in earlier recognition and more accurate diagnosis of autoimmune epilepsy. Greater understanding of the diagnostic and treatment algorithms will result in more timely and appropriate treatment and lead to improvement in outcomes.

[www.aesnet.org](https://www.aesnet.org)

# Program | Tuesday, December 5

## Learning Objectives

Following participation in this activity, participants will be able to:

- Recognize clinical and neuroimaging features, treatment response and outcomes of pediatric anti-NMDAR encephalitis and myelin oligodendrocyte glycoprotein (MOG) antibody-associated cortical encephalitis and epilepsy
- Recognize clinical characteristics of neural-specific antibody-defined autoimmune epilepsies, and methodologies utilized for autoantigen discoveries
- Describe acute and chronic management of autoimmune epilepsy guided by serological results
- Review the immunological treatment principles and available medications for acute NORSE/FIRES patients, as well as the considerations to determine the use of immunotherapy for autoimmune-associated epilepsy after acute NORSE/FIRES

**Chair: Deepa Sirsi, MD, FAES**

**Vice Chair: Claude Steriade, MD, CM**

## Program

Introduction | Deppa Sirsi, MD

Pediatric Antibody-mediated Autoimmune Epilepsies: Expanding the Clinical Spectrum of Anti-NMDA Receptor Encephalitis and MOG-associated Cortical Encephalitis in Children | Cynthia Wang, MD

Recent Advances in Autoimmune Seizures/Epilepsy: Updates on Clinical Presentations, Diagnostic and Therapeutic Algorithms | Divyanshu Dubey, MBBS

Novel Treatment Strategies for NORSE and FIRES | Soon-Tae Lee, MD, PhD

## Education Credit

1.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023-accredited](https://aesnet.org/AES2023-accredited) for a complete list of accredited sessions.

7:00–8:30 AM

## SIG | Tumor-related Epilepsy (TRE): Invasive Monitoring in Tumor-related Epilepsy: Why, When, and How

Convention Center, WF3, Tangerine Ballroom, Level 2

 CME & CE

### Overview

The problem we are addressing is how to plan a maximal tumor resection while also addressing epilepsy resection in patients with either new or recurrent tumors and tumor-related epilepsy. The need for invasive monitoring in these cases will vary depending on tumor type, location of tumor,

and whether it is a recurrent tumor. The use of a maximal resection, when feasible, can affect seizure control, and in some cases, survival rates. Appropriate pre-surgical planning and invasive intraoperative monitoring should focus on addressing both tumor control and seizure control.

A moderated panel discusses the modalities used for invasive monitoring for different tumor types in new versus recurrent tumor operations. The group discusses decision making with the use of different invasive monitoring modalities to address both tumor resection and epilepsy resection, including outcomes.

## Learning Objectives

Following participation in this activity, participants will be able to:

- Review different invasive monitoring modalities in the context of tumor-related epilepsy
- Describe functional mapping in tumor-related epilepsy
- Demonstrate knowledge of combined tumor and epilepsy resections

**Chair: Edward Avila, DO**

**Vice Chair: Guy McKhann, MD, FAES**

## Program

Introduction: Invasive Monitoring in Tumor-related Epilepsy: Why, When, and How | Edward Avila, DO; and Guy McKhann, MD, FAES

Epileptogenic Mechanisms of the Tumor Microenvironment and How They Affect Surgical Planning | Brian Gill, MD

When to Consider Invasive Monitoring in Tumor-related Epilepsy in New versus Recurrent Tumors | Jessica Templar, MD

Technical Aspects of Invasive Monitoring in Tumor-related Epilepsy | Nitin Tandon, MD, FAES

Decision Making with Monitoring Data: Assessing Tumor and Seizure Outcomes | Edward Chang, MD

## Education Credit

1.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023-accredited](https://aesnet.org/AES2023-accredited) for a complete list of accredited sessions.

8:45–11:15 AM

## Merritt-Putnam Symposium | Artificial Intelligence: Fundamentals and Breakthrough Applications in Epilepsy

Convention Center, W415 C/D, Valencia, Level 4

 Digital Select  CME & CE

8:45 – 11:15 AM

## Pediatric State of the Art Symposium | Neonatal Seizures in 2023: New Evidence We've Been Waiting For

Convention Center, W415 A/B, Valencia, Level 4

 Digital Select  CME & CE

### Overview

Neonates are susceptible to seizures due to their unique physiology and combination of risks associated with gestation, delivery, and the immediate post-natal period. Advances in neonatal care have improved outcomes for some of our most fragile patients and presented additional challenges for epileptologists in identifying neonatal seizures, diagnosing etiologies, and providing the most appropriate care, with an ultimate goal to maximize patient outcomes. Care of neonates with seizures varies from center to center. In just the last few years, there have been critical advances in the state of the science, as well as new guidelines for diagnosis, classification, and treatment of neonatal seizures. Thus, 2023 is an appropriate time to present the new state-of-the-art for neonatal seizures.

This session presents state-of-the-art diagnostic techniques along with evidence-based discussions to support the latest guidelines for the diagnosis and treatment of neonatal seizures. Guideline-based treatment will allow for equitable treatment of this vulnerable population across centers. This symposium provides updated knowledge about the pathophysiology of neonatal seizures, classification of the provoked seizures and neonatal epilepsies, state-of-the-art guidance on EEG monitoring in the neonatal ICU, current treatment guidelines of neonatal seizures, and potential for future advancement in treatment.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Review the physiology of the neonatal period that contributes to seizure susceptibility
- Apply the latest guidelines in neonatal EEG monitoring, classification, and treatment to provide optimal and equitable care
- Recognize which neonates may benefit from rapid genetic evaluation and precision medicine
- Appreciate the parent perspective of neonatal seizures to improve care of the whole family

**Co-Chairs: Julie Ziobro, MD, PhD; and Renée Shellhaas, MD, MS, FAES**

### Program

Introduction and The Science of Neonatal Seizures | Julie Ziobro, MD, PhD

Parent Narrative: A Neonatal Seizure Story | Betsy Pilon, BA

### Overview

Artificial Intelligence, Machine Learning, and Deep Learning are increasingly being used for epilepsy research with resultant cutting-edge applications that are enhancing epilepsy care. There is a need to disseminate knowledge about these approaches, how to use them, their advantages, and their potential limitations.

This symposium initially provides an explanation of the fundamental principles, the ABCs, of Artificial Intelligence, Machine Learning, and Deep Learning, and then provides insights into their cutting-edge applications in screening for medications in neural organoids, into predicting clinical response to medication treatments, and finally into their expanding applications to the detection and analysis of EEG signals in intensive care, epilepsy monitoring unit, and intracranial monitoring situations.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Review the fundamentals and principles of Artificial Intelligence, Machine Learning, and Deep Learning
- Evaluate the use of Machine Learning for drug evaluation in neural organoids
- Apply the use of Artificial Intelligence-based data for prediction of seizures to their clinical or research practice
- Apply the use of Artificial Intelligence in detection and analysis of EEG signals, ICUs, and intracranial EEG applications

**Chair: Mohamad Mikati, MD, FAES**

### Program

Introduction | Mohamad Mikati, MD, FAES

Fundamentals and Principles of Artificial Intelligence, Machine Learning, and Deep Learning | Wesley Kerr, MD, PhD

Machine Learning for Drug Evaluation in Neural Organoids | Sandra Acosta, MS, PhD

Prediction of Epilepsy Treatment Response Using Artificial Intelligence | Patrick Kwan, MD

Artificial Intelligence in Detection and Analysis of EEG Signals, ICUs, and Intracranial EEG Applications | Gregory Worrell, MD, PhD

Panel Discussion | All Faculty

### Education Credit

2.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](http://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

## Program | Tuesday, December 5

Who Should be Monitored? ACNS EEG Monitoring Systematic Review and Guidelines for Neonates | Courtney Wusthoff, MD, MS, FAES

Quantitative EEG and Automated Seizure Detection in the NICU | Giulia Benedetti, MD

EEG Monitoring for Neonates with Complex Congenital Heart Disease | Shavonne Massey, MD, MSCE, FAES

ILAE Neonatal Epilepsy Classification | Elissa Yozawitz, MD, FAES

Rapid Genetic Diagnosis and Precision Therapies in Neonatal Developmental and Epileptic Encephalopathies | Adam Numis, MD

ILAE Treatment Guidelines for Neonatal Seizures | Ronit Pressler, MD, PhD

The Science of Being a Parent | Betsy Pilon, BA

### Education Credit

2.5 CME

At the time of printing this program, the application for nursing and pharmacy CE credits has been submitted and is pending approval. Please refer to [aesnet.org/AES2023](https://aesnet.org/AES2023)-accredited for a complete list of accredited sessions.

11:00 AM – 12:30 PM  
12:45 – 2:15 PM

## Clinical Skills Workshop | Genetics Testing in Epilepsy Patients

Convention Center, W311 A/B, Level 3

### Additional Fee

*Pre-registration required*

### Overview

Expanding technologies are allowing us to interrogate the genome in novel ways, providing new options for clinical genetic testing for patients with epilepsy. Knowing which test to order, and for whom, remains a challenge in many epilepsy clinics. Once resulted, genetic findings are not always easily interpretable, making the path to molecular diagnosis more challenging.

This session provides overview and guidance on the testing modalities, how to approach genetic testing in both the pediatric and adult populations, and how to interpret test results.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Evaluate the different types of genetic testing options, including scope, benefits and limitations of each
- Identify which patients are most likely to have an underlying genetic etiology and recognize which test is most appropriate

- Demonstrate how genetic variants are classified in diagnostic labs and interpreted in the clinic

**Moderators: Danielle Andrade, MD, MSc, FRCPC, CSCN (EEG); Ingo Helbig, MD; and Lacey Smith, MS, CGC, FAES**

### Program

Genetics in Epilepsy: Navigating the Testing Market and Interpreting Results | Lacey Smith, MS, CGC, FAES

Genetic Evaluation of the Pediatric Patient with Epilepsy | Ingo Helbig, MD

Genetic Evaluation of the Adult Patient with Epilepsy | Danielle Andrade, MD, MSc, FRCPC, CSCN (EEG)

11:00 AM – 12:30 PM  
12:45 – 2:15 PM

## Clinical Skills Workshop | Intracranial Electrode Studies

Convention Center, W311 C/D, Level 3

### Additional Fee

*Pre-registration required*

### Overview

Over the past 30 years, resection for medically intractable epilepsy has become a standard treatment option. However, in many instances, successful surgery is not possible without defining the potential resective volume by intracranial electrophysiology.

In this interactive workshop where cases are presented to illustrate different problems to be solved by defining a region of epileptogenesis, participants work in groups to provide a consensus intracranial study. An experienced epileptologist provides their institution's approach to the case and will describe the outcome.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Discuss the indications for invasive monitoring
- Recognize the limitation, advantages and disadvantages of different methods of explorations
- Reflect on the utility of invasive monitoring in promoting seizure free outcome

**Moderators: Yemi Damisah, MD; Jorge Gonzalez-Martinez, MD, PhD; and Thandar Aung, MD**

11:00 AM – 12:30 PM  
12:45 – 2:15 PM

## Clinical Skills Workshop | Neurostimulation in Epilepsy

Convention Center, W314 A/B, Level 3

 **Additional Fee**

*Pre-registration required*

### Overview

Neurostimulation is an FDA-approved treatment for drug-resistant epilepsy. Indications, efficacy, adverse effects, and programming vary by device. Additionally, programming of these approved devices can be complex and requires training and practice. Three stimulation devices are approved for these patients: the vagal nerve stimulator (VNS), the responsive neurostimulator (RNS), and the deep brain stimulator (DBS). This session discusses neurostimulation in drug-resistant epilepsy and provides a hands-on experience for interrogating and programming the three FDA approved neurostimulation devices.

This workshop discusses the trials and post-marketing experience that established the tolerability and efficacy of these devices and instructs on how to use them effectively. Participants gain hands-on experience for interrogating and programming each of these devices.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Describe indications, efficacy, and common adverse effects of vagal nerve stimulation, responsive neurostimulation, and deep brain stimulation
- Identify patients for whom a neurostimulation device is appropriate
- Demonstrate the ability to perform basic programming on each of the three neurostimulation devices

**Moderators: Patricia Dugan, MD, FAES;  
Katie Bullinger, MD, PhD; and Steven C. Karceski, MD**

### Program

Neurostimulation in Epilepsy: RNS | Patricia Dugan, MD  
Neurostimulation in Epilepsy: DBS | Katie Bullinger, MD, PhD  
Neurostimulation in Epilepsy: VNS | Steven Karceski, MD

11:00 AM – 1:00 PM

## Clinical Skills Workshop | Misadventures in EEG

Convention Center, W311 E/F, Level 3

 **Additional Fee**

*Pre-registration required*

Registrants: Find the most up-to-date information at [aesnet.org/AES2023](http://aesnet.org/AES2023)

### Overview

Misinterpreted EEG remains a segue to mistreating patients with epilepsy. Due to the limited exposure and/or experience associated with a majority of neurologists involved in clinical practice, errors may occur and result in patient misfortune. Common artifacts, benign variants, and normal variations are at the top of the list relative to pitfalls though combinations of waveforms, and unique scenarios in and out of the hospital setting will provide different challenges.

This interactive workshop provides real-life examples of scenarios where epileptiform activity could be missed or mistaken for abnormality and result in a “misadventure” in patient management. Topics involve standard EEG, both basic and advanced, as well as those acquired on an outpatient and inpatient basis within the ICU setting. Some examples of OR monitoring and intracranial EEG are shown, but the primary focus is on the early-moderate learner who is involved in interpreting routine EEGs on an intermittent basis. The purpose is to encompass the most common pitfalls that are likely to be encountered and the reasons why “abnormal” is not met as a criterium for an impression.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Identify and avoid common pitfalls presented during routine interpretation of EEG
- Use a step-wise and orderly approach to EEG interpretation designed to limit misinterpretation
- Demonstrate and conduct the rationale behind the primary definition of normal vs. abnormal (epileptiform) EEG

**Moderators: William Tatum, DO, FAES;  
Lawrence Hirsch, MD, FAES; and  
Courtney Wusthoff, MD, MS**

11:00 AM – 1:00 PM

## Clinical Skills Workshop | Neuroimaging Case Review: Conventional and Computer-assisted Analysis

Convention Center, W311 G/H, Level 3

 **Additional Fee**

*Pre-registration required*

### Overview

Oftentimes, clinicians do not obtain a proper training to evaluate the magnetic resonance imaging (MRI) of their patients, particularly in computer-assisted image analysis. This session teaches conventional and computer-assisted evaluation of structural MRI. Attendees review imaging data of real cases of patients with drug-resistant epilepsy having undergone pre-surgical investigation under the guidance of the faculty. This session promotes image analysis as a core component of clinical decision making.

## Program | Tuesday, December 5

### Learning Objectives

Following participation in this activity, participants will be able to:

- Conduct a systematic review of structural MRI data
- Recognize imaging characteristics of prevalent lesions associated with drug-resistant epilepsy
- Use computer-assisted analysis to enhance the detection of difficult-to-see lesions

**Moderators: Andrea Bernasconi, MD; and Neda Bernasconi, MD, PhD**

### Program

Visual Evaluation and Computer-assisted Analysis of Structural MRI

11:00 AM – 1:00 PM

## Clinical Skills Workshop | Pearls of Video EEG

Convention Center, W312 B/C, Level 3

 **Additional Fee**

*Pre-registration required*

### Overview

The epilepsy monitoring unit remains a challenging environment in which to diagnose seizures/spells and perform various phases of the pre-surgical and surgical evaluation for patients with epilepsy.

This interactive workshop covers the complex nature of care and the evaluation process. Examples of the unique features of patient evaluation, management, and care in this environment are presented with an emphasis on best practices and safety.

### Learning Objectives

Following participation in this activity, participants will be able to:

- Apply knowledge gained from the session in managing their local institution/EMU
- List and describe common complications encountered in the EMU
- Utilize information gained from the session to improve patient outcomes in their home institution

**Moderators: Joseph Draskowski, MD, FAES; and Katherine Noe, MD, PhD, FAES**

## AES Career Fair

at the 2023 AES Annual Meeting

*In the Exhibit Hall*

**Saturday, December 2, 2023**

**12:00 – 6:00 PM**

**Sunday, December 3, 2023**

**10:00 AM – 4:00 PM**

Connect with potential employers seeking to fill open positions — all under one roof during the 2023 AES Annual Meeting in Orlando.

Employers will be seeking to meet with epileptologists, neurologists, and experts in all sub-specialties of these roles.



**AES 2023**  
**ANNUAL MEETING**  
December 1-5 | Orlando



# Other Programming

## PARTNER EVENTS

FRIDAY, DECEMBER 1

9:00 AM – 4:00 PM

### 36th Annual Advances in the Management of Epilepsy and the Epilepsy Clinic

*Pre-registration is required. Call 800-642-0500 with questions.*

This intensive one-day conference is designed for professionals who participate in the care of persons with epilepsy. The overall purpose is to improve services to individuals and families affected by epilepsy.

The conference is presented by the Epilepsy Information Service of Wake Forest University School of Medicine, Winston-Salem, North Carolina, through an unrestricted grant committed to the education of health professionals, in an effort to promote the comprehensive care of those with epilepsy and their families.

MONDAY, DECEMBER 4

7:00 – 8:30 AM

### National Association of Epilepsy Centers (NAEC) Annual Meeting

*Location available in the AES 2023 mobile app.*

This is the annual meeting of the National Association of Epilepsy Centers. All providers at NAEC member epilepsy centers are invited to attend.

*This meeting is open to NAEC members only.*

## SCIENTIFIC EXHIBITS

SUNDAY, DECEMBER 3

8:00 – 11:00 AM

### Scientific Exhibit | Advances in Rare Disease Research: Focus on Rett Syndrome

Convention Center, Level 3, W315A

This activity is supported by Acadia Pharmaceuticals Inc.

### Scientific Exhibit | Behind the Seizure Program Scientific Exhibit 2023: New Advances in Genetic Epilepsy Diagnosis and State-of-the-Art Research

Convention Center, Level 3, W315B

This activity is supported by Invitae Corporation.

2:00 – 5:00 PM

### Scientific Exhibit | Diacomit® (stiripentol): A US Perspective on Mechanism of Action, Efficacy, and Safety Updates in the Treatment of Dravet Syndrome

Convention Center, Level 3, W315A

This activity is supported by BIOCODEX.

### Scientific Exhibit | XEN1101, a Novel Potassium Channel Opener: Clinical Program Updates

Convention Center, Level 3, W315B

This activity is supported by Xenon Pharmaceuticals Inc.

### Scientific Exhibit | Beyond the Typical Clinical Development Program: Epidiolex® (Cannabidiol) Research Updates and Future Directions

Convention Center, Level 3, W314

This activity is supported by Jazz Pharmaceuticals, Inc.

MONDAY, DECEMBER 4

8:00 – 11:00 AM

### Scientific Exhibit | Advancing the Understanding of VNS Therapy™: Insights from Global Real-World Evidence

Convention Center, Level 3, W315A

This activity is supported by LivaNova.

### Scientific Exhibit | Advancing Ganaxolone Research in Rare Seizure Disorders: Updates from Marinus Pharmaceuticals

Convention Center, Level 3, W315B

This activity is supported by Marinus Pharmaceuticals, Inc.

### Scientific Exhibit | UCB: Innovative Science, Transforming Care for Epilepsy and Rare Epilepsy Syndromes

Convention Center, Level 3, W314

This activity is supported by UCB, Inc.

2:00 – 5:00 PM

### Scientific Exhibit | An Update on the Development of LP352: A Novel Investigational 5-HT<sub>2C</sub> Superagonist for the Treatment of Rare Seizure Disorders

Convention Center, Level 3, W315A

This activity is supported by Longboard Pharmaceuticals, Inc.

## Other Programming

### Scientific Exhibit | TAK-935 (soticlestat) and the Journey of the Development of a Novel Mechanism of Action, from Preclinical Models to Clinical Trials in Dravet Syndrome and Lennox-Gastaut Syndrome

Convention Center, Level 3, W315B

This activity is supported by Takeda Pharmaceuticals.

## SATELLITE SYMPOSIA

FRIDAY, DECEMBER 1

6:00–9:00 AM

### Industry CME Satellite Symposium | Seizure Action Plans and Rescue Medications in Adults with Epilepsy: Connecting the Dots from Science to Patient Care

Hyatt Regency Orlando, Plaza Ballroom F, Convention Level



CME

CME for this session is provided by Medscape.

The 90-minute, CME-certified live symposium associated with the 2023 American Epilepsy Society (AES) Meeting presents a comprehensive review of the recent updates related to the use of seizure action plans and rescue medications for patients with epilepsy. The symposium features a lively and engaging format resembling a talk show, in which a moderator and 3 panelists (faculty experts in epilepsy management) offer scientific expertise, and a patient with epilepsy offers their experience with seizure rescue medication. Audience interactivity is supported by the use of polling questions, followed by the evidence-based explanations of the optimal answer choices, which may include clinical trial data and expert recommendations, as appropriate.

This activity is supported by Neurelis Inc.

### Industry CME Satellite Symposium | Beyond Seizures: The Evolving Standard of Care in Developmental and Epileptic Encephalopathies

Hyatt Regency Orlando, Plaza Ballroom G, Convention Level



CME

CME for this session is provided by Miller Medical Communications, LLC.

As the new ASMs targeted at specific DEEs (such as Dravet and Lennox-Gastaut syndromes, as well as CDD) offer significant seizure-reduction efficacy, attention in the field is expanding its focus to their effect on comorbidities and non-seizure outcomes. This focus is of great importance to families and caregivers of patients with DEEs since research shows that non-seizure aspects of DEEs impact the quality of life of caregivers as much as seizures do.

We propose a live symposium with 4 faculty. It focuses on ways in which the field of DEEs is evolving to better understand, measure, and integrate non-seizure outcomes as a key determinant of care and ways in which the needs of caregivers need to be understood and met.

This activity is supported by UCB, Inc.

### Industry Non-CME Satellite Symposium | Accelerating Diagnosis and Collaboration with HCPs to Improve Quality of Care

Hyatt Regency Orlando, Plaza Ballroom H, Convention Level

Practical Neurology and Jazz Pharmaceuticals are partnering to host a panel discussion to better understand what information is needed to improve the referral process for rare forms of epilepsy (e.g., Lennox-Gastaut syndrome, Dravet syndrome, tuberous sclerosis complex). Epileptologists and neurologists together explore appropriate tools that should be utilized for an optimal referral process with the goal of shorter time to accurate diagnosis, treatment and improved patient outcomes. The conversation is framed by results from a Practical Neurology survey on healthcare provider perceptions of the current challenges to diagnosis for these patients and the treatment landscape. The panel features a 45-minute discussion moderated by Practical Neurology, followed by a 15–30-minute audience Q&A session.

This activity is supported by Jazz Pharmaceuticals, Inc.

SATURDAY, DECEMBER 2

6:00–9:00 AM

### Industry Non-CME Satellite Symposium | The 'Window of Opportunity': Recognizing the Importance of Rapid and Early Seizure Termination

Hyatt Regency Orlando, Plaza Ballroom F, Convention Level

Approximately 40% of patients with epilepsy continue to experience breakthrough seizures despite being on a stable antiseizure medication (ASM) regimen. All seizures carry the risk of progression to a more severe seizure type or seizure emergency which negatively impacts outcomes for patients, caregivers and healthcare systems.

Stopping a seizure as quickly as possible is important since the longer a seizure lasts the less likely it will self-terminate or respond to treatment. There is a short window of opportunity to terminate a seizure before progression to more severe seizure types or a higher-level seizure emergency. Rapid and Early Seizure termination (REST) has been proposed as a new management concept to treat early within the window of opportunity, with the goal of rapidly terminating an ongoing seizure. This in turn would reduce the associated risk of injury, healthcare resource utilization and risk of brain damage and death.

This activity is supported by UCB, Inc.

### Industry Non-CME Satellite Symposium | The Clinical and Personal Value of a Genetic Diagnosis for Epilepsy: Patient and Caregiver Perspectives

Hyatt Regency Orlando, Plaza Ballroom G, Convention Level

This session provides neurologists and learners with knowledge pertaining to genomic (exome and genome) sequencing testing. Our speaker provides an overview of the current clinical guidelines which recommend genomic sequencing for patients with epilepsy 1, 2 and the clinical utility of genomic sequencing for patient care and management from a clinician perspective.

Our speaker then guides patient/caregiver panelists through a discussion of the impact of genomic sequencing, with a focus on their perceived value of this testing. Panelists provide feedback on lived experiences with genomic sequencing in the neurology clinic and highlight key messages from support and advocacy groups with the goal to improve patient and family-centered care.

This activity is supported by GeneDX.

### Industry Non-CME Satellite Symposium | Impact of Continued Seizures and Strategies for Seizure Reduction/Freedom

Hyatt Regency Orlando, Plaza Ballroom H, Convention Level

Seizures have a significant impact on patients' lives. When seizures remain uncontrolled, patients are more likely to have depression, be unable to drive, and have employment or educational limitations. Patients with uncontrolled seizures also have a greater risk of death, including from SUDEP. Antiseizure medications (ASMs) to date have left patients with the same rate of seizure freedom for several decades.

In this symposium, we review the enduring unmet need for achieving seizure freedom, the impact of continued seizures on patients' lives, and approaches to optimizing ASM regimens. The perspective of a patient with epilepsy is shared during a one-on-one discussion with the patient's physician. Additionally, we discuss how epilepsy surgery candidates are managed and how to approach optimizing treatment with ASMs prior to surgery. Finally, we discuss pharmacologic options to help patients avoid becoming refractory to multiple ASMs.

This activity is supported by SK Life Science, Inc.

### Industry Non-CME Satellite Symposium | Going Beyond: Examining the Impact of Non-seizure Symptoms in DS and LGS

Hyatt Regency Orlando, Plaza Ballroom I, Convention Level

This 90-minute, Takeda-sponsored symposium explores a number of topics, including:

1. What are the non-seizure symptoms (NSS) of Dravet syndrome (DS) and Lennox-Gastaut syndrome (LGS) and how do they impact the quality of life (QOL) of affected individuals/families?

2. How can NSS be measured? What are the problems with current measures, and what is needed to address these gaps?
3. What is known (and unknown) about the impact of current therapies and seizure control on NSS? What should be the focus of future therapies/trials?

This activity is supported by Takeda Pharmaceuticals.

## SUNDAY, DECEMBER 3

6:00–9:00 PM

### Industry CME Satellite Symposium | Comprehensive Care in Developmental and Epileptic Encephalopathies: Expert and Caregiver Perspectives

Hyatt Regency Orlando, Plaza Ballroom F, Convention Level



CME for this session is provided by Medscape.

Developmental and epileptic encephalopathy (DEE) refers to a primarily genetic, heterogenous group of rare epilepsy syndromes. Frequent seizures contribute to the significant clinical burden, but the effects of these disorders can also negatively impact other domains. Patients with DEEs often experience a delay in diagnosis and variability in care. Care for patients with DEEs involves the management of both seizure and non-seizure symptoms.

The proposed symposium focuses on the main decision points in the care of patients with DEEs. Care starts with an accurate and timely diagnosis, which is reviewed in the first presentation. Following a diagnosis, developing a treatment plan that considers both clinical data and the individual needs of patients/caregivers is crucial to maximizing the treatment effect. Lastly, although there are many non-seizure symptoms associated with DEEs, poor sleep is a foundational problem that can exacerbate many other symptoms.

This activity is supported by Jazz Pharmaceuticals, Inc.

### Industry CME Satellite Symposium | The Delicate Balance of Brain Cholesterol: Implications for Developmental and Epileptic Encephalopathies (DEEs)

Hyatt Regency Orlando, Plaza Ballroom G, Convention Level



CME for this session is provided by The France Foundation.

This session focuses on brain cholesterol and its role in DEE disease progression as understanding cholesterol homeostasis in the brain is a critical basis for further understanding cholesterol dysregulation. Expert faculty cover brain cholesterol turnover, dysregulation, and homeostasis, as it relates to DEE disease progression, and potential new management approaches in this session.

This activity is supported by Takeda Pharmaceuticals.

## Other Programming

### Industry CME Satellite Symposium | Expect the Unexpected: Optimizing Diagnostic and Treatment Approaches in Dravet Syndrome

Hyatt Regency Orlando, Plaza Ballroom H, Convention Level



CME for this session is provided by Miller Medical Communications, LLC.

Dravet syndrome (DS) is among the most severe and most challenging developmental and epileptic encephalopathies (DEEs). Affected individuals experience not only recurrent seizures but also numerous non-epileptic manifestations, including intellectual disability, ataxia, sleep disturbances, and movement disorders, among others. Sudden unexpected death in epilepsy (SUDEP) is a major concern.

This symposium focuses on practical approaches to earlier diagnosis of DS, the updated treatment paradigm, with a focus on rational polytherapy choices and safety considerations with ASMs that optimize patient management and long-term outcomes.

This activity is supported by BIOCODEX.

## AES Exhibit Hall 2023 Hours

Learn about the latest treatments, tools, and technologies in epilepsy and enjoy opportunities to win prizes!

### Saturday, December 2

12:00 – 6:00 PM

### Sunday, December 3

10:00 AM – 4:00 PM

### Monday, December 4

10:00 AM – 2:00 PM

# 2023 PRODUCT THEATERS

Product Theaters are focused, high-value learning opportunities with the latest product and patient information direct from the source.

Find 2023 Product Theaters in the back of the Exhibit Hall

**Product Theater, Exhibit Hall**

## Saturday, December 2

12:30 – 1:30 PM

Nasal Spray Therapy for Episodes of Frequent Seizures

*This activity is supported by Neurelis, Inc.*

2:30 – 3:30 PM

Advance with NeuroPace: Advancing the Field of Neurostimulation Therapy in Treating Patients with Epilepsy

*This activity is supported by NeuroPace.*

## Sunday, December 3

10:15 – 11:15 AM

Infantile Spasms: Expert Panel Discussion

*This activity is supported by Pyros Pharmaceuticals.*

12:30 – 1:30 PM

Advancing Care in Rett Syndrome – Overview of the First and Only FDA Treatment

*This activity is supported by Acadia Pharmaceuticals Inc.*

2:45 – 3:45 PM

A Clinical Review of a Treatment for Seizures Associated with CDKL5 Deficiency Disorder (CDD)

*This activity is supported by Marinus Pharmaceuticals.*

# Double Your Impact with a Gift to the Sergievsky Research Fund for Epilepsy Health Equity and Diversity

A donation to the Sergievsky Fund now can double your impact. Gifts made by June 30, 2024 will be matched dollar for dollar up to \$300,000 thanks to a matching challenge from an anonymous donor.

[aesnet.org/impact](https://aesnet.org/impact)

Gifts to AES named funds make up an essential part of our ability to fund the most promising young professionals.

Photo by CDC on Unsplash

 **AES**<sup>®</sup>  
AMERICAN EPILEPSY SOCIETY



# SCIENTIFIC EXHIBITS

Company Name	Scientific Exhibit Title	Time	Room #
<b>Sunday, December 3</b>			
<b>Acadia Pharmaceuticals Inc.</b>	Advances in Rare Disease Research: Focus on Rett Syndrome	8:00 – 11:00 AM	Convention Center, Level 3, W315A
<b>Invitae Corporation</b>	Behind the Seizure Program Scientific Exhibit 2023: New Advances in Genetic Epilepsy Diagnosis and State-of-the-Art Research	8:00 – 11:00 AM	Convention Center, Level 3, W315B
<b>BIOCODEX</b>	Diacomit® (stiripentol): A US Perspective on Mechanism of Action, Efficacy, and Safety Updates in the Treatment of Dravet Syndrome	2:00 – 5:00 PM	Convention Center, Level 3, W315A
<b>Xenon Pharmaceuticals Inc.</b>	XEN1101, a Novel Potassium Channel Opener: Clinical Program Updates	2:00 – 5:00 PM	Convention Center, Level 3, W315B
<b>Jazz Pharmaceuticals, Inc.</b>	Beyond the Typical Clinical Development Program: Epidiolex® (Cannabidiol) Research Updates and Future Directions	2:00 – 5:00 PM	Convention Center, Level 3, W314

These exhibits offer meeting attendees an opportunity to stay up to date on the latest epilepsy-related research. Authors will be present during the exhibits.

Company Name	Scientific Exhibit Title	Time	Room #
<b>Monday, December 4</b>			
<b>LivaNova</b>	Advancing the Understanding of VNS Therapy™: Insights from Global Real-World Evidence	8:00 – 11:00 AM	Convention Center, Level 3, W315A
<b>Marinus Pharmaceuticals, Inc.</b>	Advancing Ganaxolone Research in Rare Seizure Disorders: Updates from Marinus Pharmaceuticals	8:00 – 11:00 AM	Convention Center, Level 3, W315B
<b>UCB, Inc.</b>	UCB: Innovative Science, Transforming Care for Epilepsy and Rare Epilepsy Syndromes	8:00 – 11:00 AM	Convention Center, Level 3, W314
<b>Longboard Pharmaceuticals, Inc.</b>	An Update on the Development of LP352: A Novel Investigational 5-HT <sub>2C</sub> Superagonist for the Treatment of Rare Seizure Disorders	2:00 – 5:00 PM	Convention Center, Level 3, W315A
<b>Takeda Pharmaceuticals</b>	TAK-935 (soticlestat) and the Journey of the Development of a Novel Mechanism of Action, from Preclinical Models to Clinical Trials in Dravet Syndrome and Lennox-Gastaut Syndrome	2:00 – 5:00 PM	Convention Center, Level 3, W315B

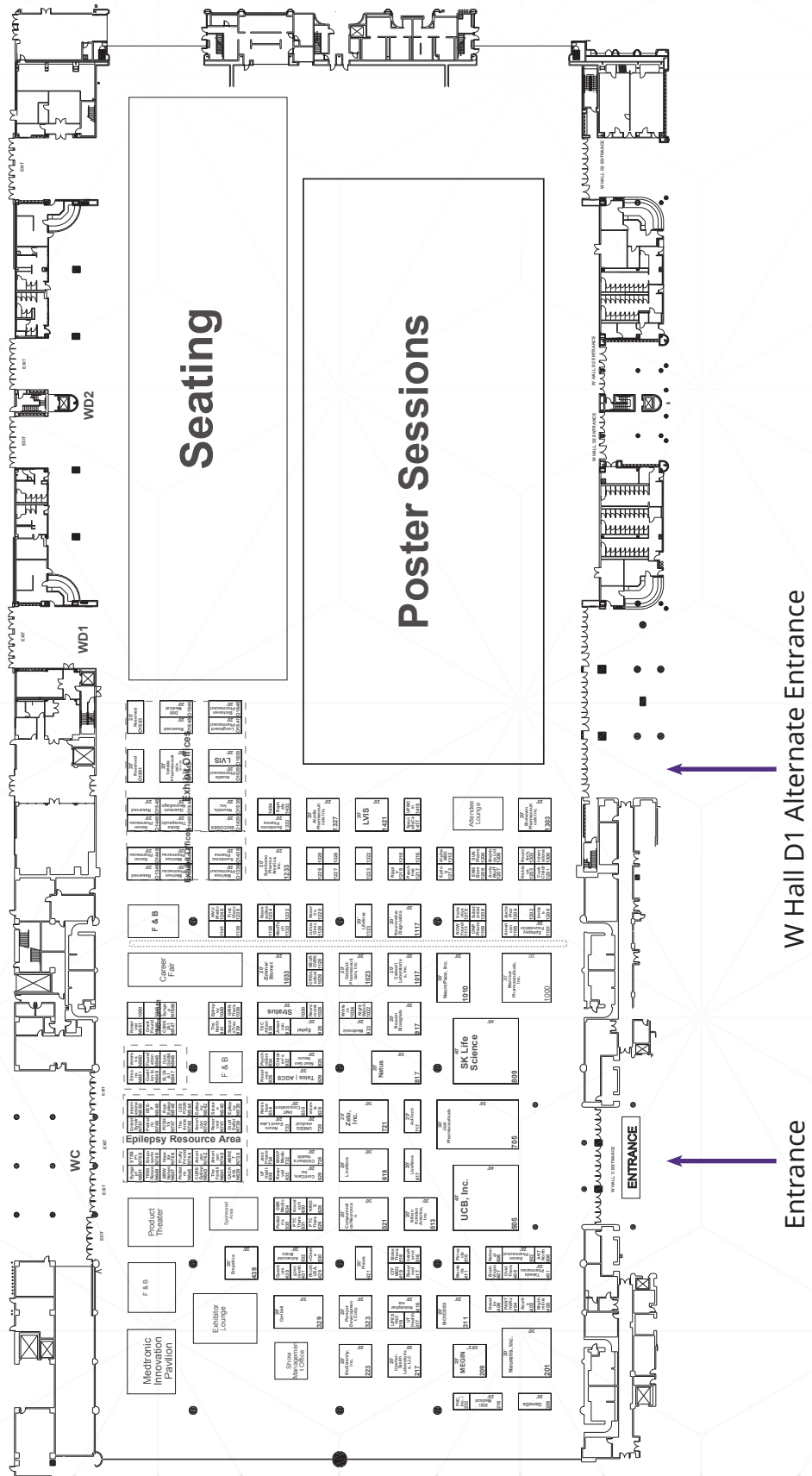


# Exhibit Hall and Exhibitors



# Exhibit Hall

This floorplan was current as of October 18, 2023. For the most up-to-date floorplan, please refer to the mobile app.



# Exhibitors

## **ABRET Neurodiagnostic Credentialing & Accreditation**

**N738**

111 E. University Dr. #105-355  
Denton TX 76209

[www.abret.org](http://www.abret.org)

## **Acadia Pharmaceuticals Inc.**

**1327**

12830 El Camino Real, Suite 400  
San Diego CA 92130

[www.acadia-pharm.com](http://www.acadia-pharm.com)

Acadia is trailblazing breakthroughs in neuroscience to elevate life through science. Our caring and courageous family aspires to enable brighter moments for patients and their loved ones. For more than 25 years, we have been working at the forefront of healthcare to bring vital solutions to people who need them most. Visit our Booth #222. For more information, visit us at [www.acadia-pharm.com](http://www.acadia-pharm.com) and follow us on LinkedIn.

## **Ad-Tech Medical Instrument Corp.**

**717**

400 W Oakview Pkwy  
Oak Creek WI 53154

[www.adtechmedical.com](http://www.adtechmedical.com)

Ad-Tech's electrode devices are used in surgical cases for sEEG, long-term EEG monitoring, brain mapping, and brain stimulation of persons with intractable epilepsy and other brain diseases/disorders. Ad-Tech proprietary designs include:

- subdural strip and grid electrodes
- dual sided subdural electrodes
- depth electrodes
- depth electrodes with micro contacts
- foramen ovale electrodes
- intraoperative electrodes
- spinal electrodes
- brain biopsy needles

## **Advanced Brain Monitoring Inc**

**532**

2237 Faraday Ave Suite 100  
Carlsbad CA 92008

[www.advancedbrainmonitoring.com](http://www.advancedbrainmonitoring.com)

Advanced Brain Monitoring is an industry leader in use of waking and sleep EEG across a spectrum of neurological assessment needs including risk recognition for neurodegenerative disorder subtypes and routine and long-term epilepsy monitoring. Sleep Profiler is designed to be worn by patients in the home or real-time ICU sleep monitoring. Setup and acquire the 10-20 montage in 15-minutes with Stat-X24 to measure event related potentials or use with the Stratus or Persist epilepsy software.

## **Alpha MED Scientific Inc.**

**1312**

812 Page St.  
Berkeley CA 94710

[www.med64.com](http://www.med64.com)

Alpha MED Scientific Inc. builds and sells the MED64 Microelectrode array systems – the most sensitive MEA system in the industry with the best signal-to-noise ratio for acute slices, culture slices, cell culture and organoids for epileptic research. Alpha MED Scientific is a subsidiary of SCREEN Biosciences which develops and sells label-free 3D imaging systems for cell cultures and tissue samples with cutting-edge artificial intelligence (AI) and independently developed optical technologies.

## **American Association and Board of Neuroscience Nurses (AANN/ABNN)**

**933**

8735 W Higgins Rd, Suite 300  
Chicago IL 60631

[aann.org](http://aann.org)

The American Association of Neuroscience Nurses (AANN) and the American Board of Neuroscience Nursing (ABNN) are committed to working for the highest standard of care for neuroscience patients by advancing the science and practice of neuroscience nursing. AANN and ABNN support neuroscience nurses and their patients by providing continuing education, nursing certification in neuroscience (CNRN) and stroke (SCRN), and certificate programs for Seizure and Epilepsy Healthcare Professionals.

## **American Board of Clinical Neurophysiology**

**N740**

111 E. University Dr. 105-355  
Denton TX 76209

[www.abcn.org](http://www.abcn.org)

The American Board of Clinical Neurophysiology (ABCN) has a long history of promoting excellence in Clinical Neurophysiology. The ABCN offers examinations in General Clinical Neurophysiology, Epilepsy Monitoring, Neurophysiologic Intraoperative Monitoring, Critical Care EEG, and Pediatric EEG. Exams are offered at testing centers or through live remote proctoring during annual testing periods. International candidates are welcome.

## **American Board of Psychiatry and Neurology**

**1105**

7 Parkway North  
Deerfield IL 60015-2544

[www.abpn.org](http://www.abpn.org)

## American Clinical MEG Society

**N743**

555 E. Wells Street, Suite 1100  
Milwaukee WI 53202

[www.acmegs.org](http://www.acmegs.org)

American Clinical MEG Society is a non-profit association of clinical magnetoencephalography (MEG) facilities in the United States. Founded in 2006 by physicians committed to setting a national standard for care of patients with epilepsy, ACMEGS now advocates for all individuals with neurological conditions who would benefit from MEG by educating policymakers and regulators about current and recommended standards of care, financial reimbursement, and health care provider regulations.

## American Clinical Neurophysiology Society

**N742**

555 E. Wells Street, Suite 1100  
Milwaukee WI 53202

[www.acns.org](http://www.acns.org)

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

## ANT North America

**500**

1617 John F Kennedy Blvd, Ste. 1675  
Philadelphia PA 19103

[www.ant-neuro.com](http://www.ant-neuro.com)

ANT Neuro is a technology leader in high density EEG, offering state-of-the-art systems tailored to the demands of cutting-edge research. ANT's eego line of EEG devices and new saline-based EEG nets enable efficient collection of high density EEG data (8-256 channels) either at rest or during movement. ANT offers specialized EEG caps for the study of neonates and infants. Our team of EEG and neuromodulation experts is happy to discuss how ANT's devices can help you achieve your research aims.

## Assertio Therapeutics

**1228**

100 South Saunders, Suite 300  
Lake Forest IL 60045

[www.assertiotx.com](http://www.assertiotx.com)

## Aucta Pharmaceuticals

**1204**

71 Suttons Lane  
Piscataway NJ 08854

[www.auctapharma.com](http://www.auctapharma.com)

Aucta Pharmaceuticals, Inc. is a technology-based company focusing on development and commercialization of Branded Specialty Products. Leveraging 505(b)(2) regulatory pathway, we create enhanced products from proven molecules, and we have a clear therapeutic focus in epilepsy, other CNS disorders, Ophthalmics and Inhalation therapy. We are committed to being patient-centric by continuously bringing improved forms of proven molecules into marketplace. Visit us at <https://www.auctapharma.com/>

## Azurity Pharmaceuticals

**402**

8 Cabot Road Suite 2000  
Woburn MA 01801

[azurity.com](http://azurity.com)

Azurity specializes in providing innovative, high-quality medicines that serve overlooked patients. We develop dose-form innovations of established medicines for patients who have needs that are not met by other available products. Our products treat a wide range of medical conditions. These include cardiovascular, central nervous system, endocrine, gastro-intestinal, anti-infective and oncology medicines.

## Beacon Biosignals

**917**

80 Revere St #10  
Boston MA 02114

Beacon's machine learning platform for EEG enables and accelerates new treatments that transform the lives of patients with neurological, psychiatric or sleep disorders. Through novel machine learning algorithms, EEG wearables, large Clinico-EEG RWE datasets, and advances in cloud-based scientific computing, Beacon Biosignals is changing the way patients are treated for disorders of the brain.

## BIOCODEX

**311**

550 Hills Drive, Suite 200B  
Bedminster NJ 07921

[www.biocodex.us/en/](http://www.biocodex.us/en/)

Biocodex, Inc. is the U.S. subsidiary of Biocodex, a family-owned multi-international pharmaceuticals company founded in France in 1953, with proven expertise in treatment for the central nervous system. As the maker of DIACOMIT, we are dedicated to providing education and support to our healthcare providers, affected individuals, and their families. American Clinical MEG Society

# Exhibitors

## **Biohaven Pharmaceuticals Inc.**

**1303**

215 Church Street  
New Haven CT 06510  
[www.biohaven.com](http://www.biohaven.com)

PATIENT-CENTRIC IN ALL WE DO

Biohaven is a modern pharmaceutical company that is guided by science and inspired to change the lives of people with unmet medical needs.

## **BioSerenity, Inc.**

**223**

99 Rosewood Drive Suite 245  
Danvers MA 01923  
[www.bioserenity.com](http://www.bioserenity.com)

BioSerenity is an innovative medical technology company focused on Healthcare as a Service. We provide remote diagnostic services through our divisions of sleep, neurology, and research. We are the preferred provider for several CRO's and university medical facilities in the US. Our solutions include HST and EEG testing, sleep center management, and a Software as a Service (SaaS) platform for clinical data intervention, research, education, and improved outcomes for anyone, anytime, and anywhere.

## **Brain Vision LLC**

**407**

515 N. Greenfield Parkway Suite 100  
Garner NC 27529  
[www.brainvision.com](http://www.brainvision.com)

Brain Vision LLC offers market-leading hardware and software for EEG/ERP/BCI, fNIRS, and TMS. We integrate EEG and fNIRS with fMRI, TMS, tDCS/tACS, MEG, and eye-tracking. Our solutions are offered for Epilepsy research on infants to adults that include wired and wireless systems with passive, active, or dry electrodes.

## **Brainbox Ltd**

**1306**

8a, Creative Quarter, Morgan Arcade  
Cardiff CF10 1AF  
United Kingdom  
[www.brainbox-neuro.com](http://www.brainbox-neuro.com)

Enabling the very best neuroscience research with tailored and integrated non-invasive brain stimulation and brain imaging solutions that include techniques such as TMS, tES, TUS, Neuronavigation, EMG, EEG, fNIRS, OPM-MEG and more. Brainbox brings together decades of technical and academic expertise to provide a wide range of customisable solutions, together with expert hands-on training to satisfy even the most demanding of non-invasive brain stimulation research studies.

## **CACNA1A Foundation**

**N639**

31 Point Rd  
Norwalk CT 06854  
[www.cacna1a.org](http://www.cacna1a.org)

The CACNA1A Foundation's mission is to find specific treatment options and a cure for CACNA1A patients by building a collaborative network of patients, families, clinicians & scientists that will work together to raise awareness & accelerate the understanding, diagnosis & treatment of CACNA1A-related diseases. Mutations in the CACNA1A gene result in a spectrum of neurological disorders, including severe, early-onset epileptic encephalopathies. Please visit our booth to learn more.

## **Cadwell Laboratories, Inc.**

**1017**

909 N Kellogg St  
Kennewick WA 99336  
[www.cadwell.com](http://www.cadwell.com)

Cadwell is solely dedicated to neurology. Arc EEG meets your brain monitoring needs with Arc Apollo+ for in-hospital, epilepsy, ICU, and at-home ambulatory monitoring; Arc Essentia for clinical, outpatient, ICU, and EMU; and Arc Zenith with up to 288 channels and cortical stimulation for EMU and neurosurgery. Help simplify your operational workflow, reduce the risk of errors, reduce setup and surgical time, and enhance data accuracy and analyses to help improve patient outcomes with Arc EEG.

## **Catalyst Pharmaceuticals, Inc**

**1023**

355 Alhambra Circle Suite 801  
Coral Gables FL 33134

Catalyst is committed to developing and commercializing innovative medicines that address rare neurological and epileptic diseases.

## **Ceribell**

**329**

2483 Old Middlefield Way  
Mountain view CA 94043  
[www.ceribell.com](http://www.ceribell.com)

## **Children's Health**

**728**

1935 Medical District Drive  
Dallas TX 75235

Children's Health<sup>SM</sup> is the leading pediatric healthcare system in North Texas and has long been recognized as a leader in pediatric health. With its academic partner, UT Southwestern, Children's Medical Center Dallas is consistently ranked #1 children's hospital in North Texas and among the nation's best pediatric hospitals by U.S. News & World Report.

## **Children's Healthcare of Atlanta**

**932**

1400 Tullie Rd.  
Atlanta GA 30324  
[www.choa.org](http://www.choa.org)

The Neurosciences department of Children's Healthcare of Atlanta proudly serves as the primary and highest ranked department in the Southeast. With 28 MDs, 15+ APPs, and 13 subspecialty programs, CHOA's neurosciences continues to grow to serve patients throughout the Atlanta MSA and the country.

## **Coalition to Cure CHD2**

**N849**

6125 Luther Lane  
Dallas TX 75225  
[www.curechd2.org](http://www.curechd2.org)

Coalition to Cure CHD2 is a 100% volunteer-run organization fueled by our desire to help children and adults with CHD2-related disorders. Our Mission is to improve the lives of those affected by CHD2-related disorders by funding research necessary for uncovering a cure. Our vision is to find safe and effective treatment that will cure CHD2-related disorders.

## **Compumedics / Neuroscan**

**521**

5015 W WT Harris Blvd  
Charlotte NC 28269  
[www.compumedics.com](http://www.compumedics.com)

Compumedics offers innovative solutions for neuro-diagnostics ranging from Routine EEG studies, ambulatory EEG, and Long-Term-Monitoring. The "Curry" neuroimaging software suite, paired with Compumedics' high density recording systems, helps optimize patient outcomes in Level 3/4 Epilepsy centers. Our solutions turns vast amounts of data into valuable information that leads to a more accurate diagnosis and more effective therapy for some of the most serious health conditions.

## **Cook Children's Health Care System**

**1201**

801 7th Ave  
Fort Worth TX 76104  
[www.cookchildrens.org](http://www.cookchildrens.org)

Cook Children's Comprehensive Epilepsy Program based in Fort Worth, Texas is one of the leading and most advanced pediatric epilepsy programs in the country. Our program coordinates the skills of a highly specialized team of experts across neurosciences and Cook Children's Health Care System. Children with epilepsy receive the most accurate diagnosis and advanced treatment available through our highly specialized team of epileptologists, neurologists, neurosurgeons, neuropsychologists and team.

## **CortiCare, Inc**

**629**

5901 Priestly Drive Suite 306  
Carlsbad CA 92008  
[www.corticare.com](http://www.corticare.com)

CortiCare provides 24/7 remote EEG monitoring and physician reading services for critical care and the EMU, using the largest nationwide network of on-call registered technologists and board-certified neurophysiologists. CortiCare is also a leading national provider of in-home Ambulatory Video-EEG Services. CortiCare - Brain Monitoring Services Made Easy, Anytime, Anywhere.

## **CREmedical Corp.**

**1029**

20 Watch Hill Dr  
East Greenwich RI 02818  
[www.cremedical.com](http://www.cremedical.com)

At CREmedical, we invent new technologies that help understand the brain, and diagnose and treat brain disorders. We are the pioneer of tripolar concentric ring electrodes (TCREs), which offer a radical improvement over the existing electrode configurations. Our TCRE based electroencephalography (tEEG) sets a new standard for physiological sensing and brain-computer-interface. Our TCRE based transcranial focal electrical stimulation (TFS) provides a new paradigm for neuromodulation.

## **CSNK2A1 Foundation**

**N947**

1929 Van Ness Avenue  
San Francisco CA 94109  
[www.csnk2a1foundation.org](http://www.csnk2a1foundation.org)

The CSNK2A1 Foundation is focused on finding a cure for Okur-Chung Neurodevelopmental Syndrome (OCNDS) and ensuring affected individuals have the opportunities and supports necessary for happy and full lives. We offer pilot research grants and a research toolbox including 3 mouse models, 9 iPSC lines, 4 fibroblast lines, and genetic and phenotypic data through Simons Searchlight. We hope you will stop by to learn more about OCNDS and meet our Science Program Director!

## **CTF MEG Neuro Innovations Inc.**

**419**

17 Fawcett Road Unit 111  
Coquitlam BC V3K 6V2  
Canada  
[www.ctf.com](http://www.ctf.com)

## **CURE Epilepsy**

**N643**

420 N. Wabash Suite #650  
Chicago IL 60611  
[www.cureepilepsy.org](http://www.cureepilepsy.org)

## **Cure GABA A Variants**

**N946**

21700 West Oxnard St Ste 580  
Woodland Hills CA 91367

# Exhibitors

## DEE-P Connections

**N848**

1234 Crittenden St NW  
Washington DC 20011

DEE-P brings together 40+ rare epilepsy organizations alongside researchers, clinicians and industry partners to improve the lives and outcomes of those most severely affected by DEEs via webinars, resources & research. Clinicians – refer DEE families to these comprehensive, reliable resources. Researchers – let's partner to fill the gaps. Patient groups – join & share key resources with your community. Industry – sponsor our innovative, targeted work serving the unique needs of DEE families.

## DIXI Medical USA

**216**

145 Howland Pines Dr  
Oxford MI 48371

[www.diximedical.com](http://www.diximedical.com)

DIXI Medical – a world leader in SEEG since 1975 is a designer and manufacturer of medical devices for functional and stereotactic neurosurgery for the treatment of epilepsy. MICRODEEP® – the original SEEG depth electrode is available with 5–18 platinum contacts and is used in leading epilepsy programs world-wide. Stop by booth 929 and learn more about DIXI Medical USA's SEEG advantages.

## Dravet Syndrome Foundation

**N751**

PO Box 3026  
Cherry Hill NJ 08034

[www.dravetfoundation.org](http://www.dravetfoundation.org)

The mission of Dravet Syndrome Foundation (DSF) is to aggressively raise funds for Dravet syndrome and related epilepsies; to support and fund research; increase awareness; and to provide support to affected individuals and families. We are the largest non-governmental funder of Dravet syndrome research and have awarded over \$6M in grants since 2009.

## Empatica

**439**

1 Broadway, 14th floor  
Cambridge MA 02142

[www.empatica.com](http://www.empatica.com)

Empatica is a full-stack digital healthcare company and pioneer in digital biomarker development and continuous health monitoring driven by AI. Its award-winning Embrace watch is the world's first and only FDA-cleared smart watch in epilepsy. The FDA-cleared Empatica Health Monitoring Platform is designed for researchers and healthcare professionals. It consists of the EmbracePlus medical wearable, software, and digital measures to accurately and continuously monitor patient health remotely.

## Empowering Epilepsy

**N748**

23500 Mercantile Road Suite D  
Beachwood OH 44122

[empoweringepilepsy.org](http://empoweringepilepsy.org)

Empowering Epilepsy enables people with epilepsy to take charge of their lives by connecting them to experts and peers for education, care and support at every age and stage. Founded by people with epilepsy, for people with epilepsy, we provide innovative, results driven programs and events throughout Northeast Ohio. We focus on creating a family friendly community where participants can meet others who understand epilepsy, learn strategies to better manage seizures, and make new friends.

## EMS Biomedical

**1209**

Jochingergasse 1  
Korneuburg 2100  
Austria

[www.emsbiomed.com](http://www.emsbiomed.com)

We are truly world leaders in Neurophysiology with leading edge technology in routine EEG, Epilepsy monitoring, LTM, ambulatory (patient worn) EEG, ICU and NICU Neuro monitoring, ERP, PSG, Nerve conduction, EMG and Evoked Potentials. Our Sienna Ultimate is the world's first 32 bit EEG Amplifier and offers an excellent technical specification in a very small footprint, with flexibility through interchangeable headboxes for different applications.

## encevis

**828**

Helga Peinsold  
Giefinggasse 4  
Vienna 1210  
Austria

[www.encevis.com](http://www.encevis.com)

encevis is an EEG software that provides solutions for various areas of electrophysiology, including long term EEG monitoring for epilepsy and critical care. encevis includes highly reliable automatic seizure and spike detection, fully automatic artifact reduction and an advanced EEG trending for EMU and ICU.

## Epilepsy Alliance America

**N838**

11822 Justice Avenue Suite B4  
Baton Rouge LA 70816

[www.epilepsyallianceamerica.org](http://www.epilepsyallianceamerica.org)

Epilepsy Alliance America is a collaborative of like-minded organizations serving people with epilepsy and those who love and support them. Epilepsy Alliance America member organizations provide direct, in-person services such as case management, patient advocacy, support groups, camps and community education programs. Epilepsy Alliance America was founded in 2018.

## **Epilepsy Alliance Florida** **N842**

7300 N Kendall Dr #760  
Miami FL 33156  
[epilepsyalliancefl.org](http://epilepsyalliancefl.org)

## **Epilepsy America**

**1040**  
95 Madison Ave Suite 306  
Morristown NJ 07960  
[www.epilepsyamerica.net](http://www.epilepsyamerica.net)

## **Epilepsy Foundation**

**1101**  
3540 Crain Highway Suite 675  
Bowie MD 20716  
[www.epilepsy.com](http://www.epilepsy.com)

About the Epilepsy Foundation: The Epilepsy Foundation, and its network of 50 organizations throughout the United States, leads the fight to overcome the challenges of living with epilepsy and to accelerate therapies to stop seizures, find cures, and save lives. To learn more, please visit [epilepsy.com](http://epilepsy.com).

## **Epilog**

**1213**  
Vlasgaardstraat 52  
Ghent East-Flanders 9000  
Belgium  
[www.epilog.care](http://www.epilog.care)

Epilog offers advanced EEG analysis as a service to support EEG monitoring and EEG interpretation in epilepsy. With CE-marked and FDA-cleared applications for electrical source imaging in clinical practice, and tailor-made solutions for clinical trials and research, we are on a mission to optimize epilepsy care! Epilog's unique combination of clinical and technical EEG expertise provides EEG-based insights into brain functioning.

## **Epitel**

**929**  
465 South 400 East Suite 250  
Salt Lake City UT 84111  
[www.epitel.com](http://www.epitel.com)

Epitel™ is a digital health company dedicated to improving seizure monitoring and detection. Leveraging our proprietary cloud-based wearable sensor system, we are enabling informed treatment decisions by making EEGs readily deployable and accessible at point-of-care. For more information, visit [epitel.com](http://epitel.com). Consult product labeling for any indications, contraindications, warnings, cautions, and directions for use. For more information, visit [epitel.com](http://epitel.com)

## **FHC, Inc. / Neuralynx, Inc.**

**222**  
1201 Main St.  
Bowdoin ME 04287  
[www.fh-co.com](http://www.fh-co.com)  
[www.neuralynx.com](http://www.neuralynx.com)

FHC, Inc., a Maine based company, has served the neuroscience community for more than 50 years in its mission to advance cranial microTargeting™ worldwide. NeuraLynx, now a division of FHC, provides data acquisition and analysis technology to researchers in over 1150 labs worldwide. Both on a mission to improve lives. Collaboration is what drives our innovation. Respect for all business relationships and commitment to our communities are what drive us.

## **First Choice Neurology**

**1238**  
9960 N.W. 116th Way, 7  
Medley FL 33178  
[www.fcneurology.net](http://www.fcneurology.net)

First Choice Neurology is Physician-Owned/Physician-Managed with Pediatric and Adult Neurologists. We are established in multiple Florida counties and provide services at over 45 major hospitals. We are actively growing. Our goal is to connect and build a better future together.

## **Fluffy Friends for Children with Chronic Conditions**

**N744**  
2131 River Sound Dr.  
Knoxville TN 37922  
[www.fluffyfriends3c.org](http://www.fluffyfriends3c.org)

A new trauma-informed program that enhances physician rapport to address the issue of medically induced post-traumatic stress disorder in chronically ill patients who are most at risk. It is a simple method for physicians to demonstrate compassion & earn patients' trust and is facilitated by a personalized, patent-pending teddy bear that gives patients full autonomy over disclosure. Additionally, the program helps protect against physician burnout by improving work-life fulfillment.

## **Foundation for USP7 Related Diseases**

**N948**  
525 Wax Palm Ln  
Chuluota FL 32766  
Our mission is to cure Hao-Fountain Syndrome (USP7-related diseases). We do this by funding research and identifying more patients.

## **g.tec medical engineering GmbH**

**431**  
Sierningstraße 14  
Schiedberg  
Austria  
[www.gtec.at](http://www.gtec.at)

g.tec is one of the leaders in neurotechnologies for invasive and non-invasive recordings for research or clinical purposes, like user-ready applications for brain mappings before and during neurosurgery. At our booth, you can take a look at a 1024 ultra-high density EEG system, a neuromodulation setup for deep brain stimulation without switching artifacts for perfect CCEPs and an ultra-high gamma setup to capture activity up to 1024 Hz without losing it in the noise floor of the amplifier.

# Exhibitors

## **GBR Medical**

**634**

800 NW Wall St  
Bend OR 97701  
[gbrmedical.com](http://gbrmedical.com)

GBR Medical distributes high quality medical products that are safe and meet all applicable global regulations, and satisfy our customers. We deliver innovative solutions and services that help improve the healthcare journey.

## **GeneDx**

**208**

207 Perry Parkway  
Gaithersburg MD 20877  
[www.genedx.com](http://www.genedx.com)

GeneDx delivers improved health outcomes through genomic and clinical insights. We are at the forefront of transforming healthcare through our industry-leading exome and genome testing and interpretation, fueled by one of the world's largest rare disease data sets.

## **Glut1 Deficiency Foundation**

**N739**

PO Box 737  
Owingsville KY 40360  
[www.g1dfoundation.org](http://www.g1dfoundation.org)

The Glut1 Deficiency Foundation is a nonprofit patient advocacy organization dedicated to improving lives in the Glut1 Deficiency community through our mission of increased awareness, improved education, advocacy for patients and families, and support and funding for research. We are building a brighter future where Glut1 Deficiency will be easy to diagnose early, treat effectively, and cure completely.

## **GRIN Therapeutics**

**1038**

230 Park Ave #2830  
New York NY 10169  
[neurvati.com](http://neurvati.com)

GRIN Therapeutics, a Neurvati Neurosciences company, is focused on developing novel treatment options for patients living with developmental and epileptic encephalopathies including GRIN-related Disorders, Tuberous Sclerosis Complex (TSC), and Focal Cortical Dysplasia (FCD). The company's investigational product, radiprodil, is being evaluated in the Phase 1b Honeycomb study.

## **Hope for HIE**

**N746**

PO Box 250472  
West Bloomfield MI 48325  
[Hopeforhie.org](http://Hopeforhie.org)

Hope for HIE is the premiere global patient advocacy and support organization improving the lives of children and families facing neonatal and pediatric acquired Hypoxic Ischemic Encephalopathy, one the leading causes of infant mortality and morbidity, and the top structural cause of neonatal seizures, Infantile Spasms and other rare and aggressive types of epilepsy.

## **International League Against Epilepsy**

**1300**

Suite 105 The Crescent Building  
(Block B)  
Northwood CO. DUBLIN D09C6X8  
Ireland  
[www.ilae.org](http://www.ilae.org)

The International League Against Epilepsy (ILAE) was founded in 1909 and is an organisation of more 128 national chapters comprising over 25k members. Our mission is to ensure that health professionals, patients and their care providers, governments, and the public world-wide have the educational and research resources that are essential in understanding, diagnosing, and treating persons with epilepsy. ILAE's vision is a world in which no person's life is limited by epilepsy.

## **International SCN8A Alliance**

**N850**

1234 Crittenden St. NW  
Washington DC 20011  
[scn8aalliance.org](http://scn8aalliance.org)

The International SCN8A Alliance collaborates with stakeholders to expand the understanding of SCN8A, find better treatments & improve outcomes. Learn about our work to publish the 1st global consensus guidelines on diagnosis, phenotypes treatments & prognosis of SCN8A, extensive support & education for families, advancing research, longitudinal Registry and alliance w/ global SCN8A patient organizations to rapidly and collaboratively advance cures. We welcome new partners and collaborations.

## **IntraNerve Neuroscience**

**516**

24 S Weber St., Suite 200  
Colorado Springs CO 80903  
[www.intranerve.com](http://www.intranerve.com)

IntraNerve Neuroscience (INN) is Joint Commission accredited in Ambulatory Care - Telehealth. We offer Intraoperative Neuromonitoring, Routine and Continuous EEG, and Remote Professional Interpretation. Our Neurologists/Epileptologists, Technologists, and IT support are dedicated to providing care and assistance around the clock, 24/7/365, since 2006. We partner with facilities like yours across the country to provide high quality, reliable neuroscience services.

## **Invitae**

**1200**

1400 16th Street  
San Francisco CA 94103  
[www.invitae.com](http://www.invitae.com)



## Jazz Pharmaceuticals

705

5750 Fleet St.  
Carlsbad CA 92008  
[www.jazzpharma.com](http://www.jazzpharma.com)

Jazz Pharmaceuticals is a global biopharmaceutical company whose purpose is to innovate to transform the lives of patients and their families. We are dedicated to developing life-changing medicines—for people with serious diseases—often with limited or no therapeutic options. Please visit [www.jazzpharmaceuticals.com](http://www.jazzpharmaceuticals.com) for more information.

## Jazz Pharmaceuticals International

734

Waterloo Exchange, Waterloo Road  
Dublin D04 E5W7  
Ireland

## Julius Clinical

1129

Broederplein 41-43  
Zeist 3703 CD  
Netherlands  
[www.juliusclinical.com](http://www.juliusclinical.com)

Julius Clinical is a global Academic CRO with a distinct focus on supporting the development of drugs that provide a significant improvement of medical practice. We offer end-to-end CRO services to run global clinical trials, which are supported by our proprietary scientific site networks and tailor-made operational solutions. We focus on specific therapeutic areas we believe we can add true value to, including Epilepsy, Alzheimer's Disease, Parkinson's Disease, ALS and Hearing Loss.

## LGS FOUNDATION

N844

6030 Santo Road, Suite 1 Unit 420878  
San Diego CA 92142  
[www.lgsfoundation.org](http://www.lgsfoundation.org)

The Lennox-Gastaut Syndrome (LGS) Foundation is a nonprofit organization dedicated to improving the lives of individuals impacted by LGS through advancing research, awareness, education, and family support. Our vision is to end the suffering and devastation caused by LGS. Learn more about LGS and the LGS Foundation on our website at [www.lgsfoundation.org](http://www.lgsfoundation.org)!

## Lifelines Neuro

1123

900 E Main Street, 3rd Floor  
Louisville KY 40206  
[lifelinesneuro.com](http://lifelinesneuro.com)

## LIFESYNC

319

11705 NW 39th St  
Coral Springs FL 33065-2511  
[www.lifesync.com](http://www.lifesync.com)

LifeSync Neuro is a trusted partner in neurodiagnostic and neuromonitoring technology, with a wide array of products and services. All LifeSync products are known for excellent signal quality and patient comfort. Our competitively priced, in-stock products can be shipped quickly, so you have what you need, when you need it.

## LivaNova

617, 619

100 Cyberonics Blvd  
Houston TX 77058  
[www.livanova.com](http://www.livanova.com)

As pioneers of the VNS Therapy™ system, we continue to advance medical device solutions for people affected by drug-resistant epilepsy. We strive to help where it counts, where it truly matters the most. Sharp, responsive and effective – at LivaNova we serve health and improve lives. Day by day. Life by life.

## LVIS

1421

2600 East Bayshore Rd  
Palo Alto CA 94303  
[www.lviscorp.com](http://www.lviscorp.com)

LVIS Corp, Palo Alto's AI pioneer in neurology, unveils NeuroMatch, our approved AI solution at booth 1421, reshaping neurology with cutting-edge technology. Join us in revolutionizing the field.

## Marinus Pharmaceuticals, Inc.

1000

5 Radnor Corporate Center,  
100 Matsonford Rd., Suite 500  
Radnor PA 19087  
[www.marinuspharma.com](http://www.marinuspharma.com)

Marinus is a commercial stage pharmaceutical company dedicated to the development of innovative therapeutics for seizure disorders. Marinus is investigating the potential of ganaxolone, a neuroactive steroid GABAA receptor modulator, in IV and oral formulations to maximize therapeutic reach in acute and chronic care settings. For more information visit <https://marinuspharma.com/>

## MedTech International Group

1133

21175 State Highway 249  
Houston TX 77070  
[www.medtechinternationalgroup.com](http://www.medtechinternationalgroup.com)

Med-Tech International is a mission-driven company. For us, that means a strong collaboration with our clinical partners to continuously deliver innovative and alternative therapies to fulfill clinical needs and improve patient outcomes.

# Exhibitors

## Medtronic

923

710 Medtronic Pkwy  
Minneapolis MN 55432  
[www.medtronic.com](http://www.medtronic.com)

We lead global healthcare technology, boldly attacking the most challenging problems. Our Mission – to alleviate pain, restore health, and extend life – unites a global team of 90,000+ people, and our technologies transform the lives of two people every second, every hour, every day. Expect more from us. Medtronic. Engineering the extraordinary.

## MEGIN

209

Keilasatama 5  
Espoo FI-02150  
Finland  
[megin.com](http://megin.com)

MEGIN is a global neuroscience technology company focused on developing innovative solutions for functional brain mapping for presurgical evaluation. For over 30 years, MEGIN has been the global leader in magnetoencephalography (MEG) technology. The TRIUX™ neo provides a non-invasive, real-time view of patient-specific neural activity with millimeter accuracy and millisecond resolution, providing the most precise information currently available on the market.

## MEW Network

N647

1518 Clifton Rd  
Atlanta GA 30322-4201  
[managingepilepsywell.org](http://managingepilepsywell.org)

The MEW Network is a group of U.S. universities, community-based organizations, and the Centers for Disease Control and Prevention who work together to promote epilepsy self-management research and improve the quality of life for people living with epilepsy.

## Monteris Medical

411

131 Cheshire Lane North Suite 100  
Minnetonka MN 55305  
[www.monteris.com](http://www.monteris.com)

Monteris Medical is the maker of the NeuroBlate® System, the only minimally invasive, robotic, laser interstitial thermal therapy (LITT) that uses MR-guided surgical ablation technology designed specifically for use in the brain. NeuroBlate is a surgical tool used to ablate brain lesions, including epileptogenic foci and brain tumors. It has been successfully used for a wide range of epilepsy localizations and is supported by a growing body of clinical evidence.

Visit [monteris.com](http://monteris.com) to learn more.

## MVAP Medical Supplies

732

2001 Corporate Center Dr  
Thousand Oaks SC 91320  
[www.mvapmed.com](http://www.mvapmed.com)

## National Association of Epilepsy Centers

506

1150 Connecticut Ave, NW, Ste. 803  
Washington DC 20036  
[www.naec-epilepsy.org](http://www.naec-epilepsy.org)

NAEC is a non-profit association with a membership of more than 260 specialized epilepsy centers in the United States. The Association continues its work to develop standards of care and promote their adoption by epilepsy centers through its accreditation program. NAEC pursues an active agenda, educating public and private insurers, policymakers, and government officials about the complexities of and need for patient access to specialized epilepsy services.

## Natus

817

3501 Pleasant View Road  
Middleton WI 53562  
[www.natus.com](http://www.natus.com)

Natus delivers advanced technology and market-leading solutions across the full spectrum of neuro care. Since 1935 we have been committed to advancing the quality of patient care in the fields of EEG, EMG, EP, ICU, IOM, LTM, Sleep, research and application products. We manufacture products, supplies and software solutions that provide detection, trending and monitoring for a range of conditions, including seizures, epilepsy and other disorders that affect the brain. Learn more at [natus.com](http://natus.com).

## Neurelis, Inc.

201

3430 Carmel Mountain Rd Suite 300  
San Diego CA 92121  
[www.neurelis.com](http://www.neurelis.com)

Neurelis, Inc. is an innovation-driven neuroscience company focused on the development and commercialization of product candidates and innovative delivery technologies for the broader central nervous system (CNS), including epilepsy and psychiatry. In 2020, Neurelis reached a milestone in patient care with its first FDA-approved treatment. For information, please visit <http://www.neurelis.com>.

## Neuro Event Labs

733

Biokatu 10  
Tampere 45689  
Finland

[www.neuroeventlabs.com](http://www.neuroeventlabs.com)

At Neuro Event Labs Oy, we understand the complexity of epilepsy diagnosis & monitoring. That's why our team has developed Nelli®: a one-of-a-kind, accurate, and cost-effective way to monitor epileptic patients. Nelli® system combines video-based automated seizure detection with an artificial intelligence-based algorithm that automatically categorizes seizures.

## Neuromonitoring Technologies

**1028**

6425 Living Place, STE 2  
Pittsburgh PA 15206

[www.neuromonitoringtechnology.com](http://www.neuromonitoringtechnology.com)

Continuous Remote EEG Services ICU/LTM/AMB to Support your Already Busy Team Neuromonitoring Technologies provides continuous “eyes-on” EEG for EMU & ICU. Critical conditions (seizures, ischemia) require rapid recognition for immediate treatment that affects the course of an illness and length of hospital stay. NMT’s technologists, are mandatory ABRET board certified CLTM’s. We successfully correlate EEG patterns, cardiovascular and hemodynamic parameters with clinical findings for immediate care.

## NeuroPace, Inc.

**1010**

455 N Bernardo Avenue  
Mountain View CA 94043

[www.neuropace.com](http://www.neuropace.com)

NeuroPace is a commercial-stage medical device company focused on transforming the lives of people suffering from epilepsy by reducing or eliminating the occurrence of debilitating seizures. Its novel and differentiated RNS® System is the first and only commercially available, brain-responsive platform that delivers personalized, real-time treatment at the seizure source.

## Neurotech, LLC

**1302**

626 W Moreland Blvd  
Waukesha WI 53188

[www.neurotecheeg.com](http://www.neurotecheeg.com)

Neurotech specializes in EEG services including in-home, long-term, and continuous hospital EEG monitoring for clinicians and researchers. Accredited by the Joint Commission and partnered with many academic facilities, Neurotech’s in-home, long-term EEG monitoring services improve our patients’ comfort and provide a cost-effective alternative to a hospital stay. Neurotech cEEG Partners provides hospitals with continuous EEG monitoring in the ICU and EMU to improve patient safety and outcomes.

## Neurovative Diagnostics

**1117**

16800 N Dallas Pkwy Ste 175  
Dallas TX 75258

Neurovative Diagnostics delivers the latest in EEG innovation and creates simple access for providers, using a URL cloud-based EEG platform accessible on any device, providing first-class studies and accessibility. Neurovative Diagnostics is accredited by the Joint Commission and provides Neurodiagnostic services in over 25 states. Established in 2016, they are headquartered in Dallas, TX and serve over 5,000 patients yearly.

## NEUROVENTIS

**1128**

Groeneweg 35A Avenue des Volontaires  
19, 1160 Auderghem – Belgium  
Overijse 3090  
Belgium

[neuroventis.care](http://neuroventis.care)

Neuroventis is an innovative company focused on digital health in neurology, with our technology being used for patient empowerment, remote patient monitoring, treatment support and decentralised trials. We connect people with epilepsy to their neurologist via the Helpilepsy patient application and the Neuroventis dashboard for medical teams. The Neuroventis digital platform is a CE-marked, FDA-registered, ISO13485 & ISO27001 certified medical device software.

## Nexstim

**406**

Elimaenkatu 9B  
Helsinki  
Finland

[www.nexstim.com](http://www.nexstim.com)

Nexstim offers an E-field navigated TMS technology for both diagnostic and therapeutic applications. Nexstim’s non-invasive NBS system is FDA-cleared for pre-procedural mapping of speech and motor cortices.

## Next Gen Neuro

**928**

3042 S County Road 475 E  
Plainfield IN 46168

[www.teamngn.com](http://www.teamngn.com)

Next Gen Neuro is an outsourced, on-demand extension of your neurodiagnostic team. We provide reliable, best-in-class EEG services, when and where you need us. We provide Remote Real-Time Continuous EEG Monitoring, Real-time Intermittent EEG Monitoring, NeuroAnalyst Review and Rounding, Reading Physician Services, Onsite EEG Setup Training and more! As your remote cEEG & EEG partner, the way we work together is based entirely upon your needs and future goals for these services.

## Nicklaus Children’s Hospital Brain Institute

**1203**

3100 SW 62 Ave  
Miami FL 33155

[www.nicklauschildrens.org](http://www.nicklauschildrens.org)

Florida’s top-ranked hospital for pediatric neurology and neurosurgery.

## NightWatch Seizure Detection

**1022**

Schipholweg 103  
Leiden 2316 XC  
Netherlands

[www.nightwatchepilepsy.com](http://www.nightwatchepilepsy.com)

## Nihon Kohden America, Inc.

**513**

15353 Barranca Pkwy  
Irvine CA 92618

[us.nihonkohden.com](http://us.nihonkohden.com)

# Exhibitors

## **NINDS**

**628**

31 Center Dr., Room 8A07, MSC 2540  
Bethesda MD 20892-2540

[www.ninds.nih.gov](http://www.ninds.nih.gov)

The National Institute of Neurological Disorders and Stroke (NINDS), part of the National Institutes of Health, supports basic, translational, and patient-oriented research on epilepsy prevention, diagnosis, and treatment, including epileptogenesis, gene discovery, epidemiology, behavioral consequences, and development of new therapies. Free patient information and educational videos are available.

## **Nobelpharma America**

**416**

4520 East-West Hwy Suite 400  
Bethesda MD 20814

[www.nobelpharma-us.com](http://www.nobelpharma-us.com)

Nobelpharma America, LLC is focused on the commercialization of pharmaceuticals and medical devices that expand treatment options for people with rare diseases. Nobelpharma America was established in 2019 as the first wholly owned global subsidiary of Nobelpharma Co., Ltd., based in Tokyo Japan. In 2022, Nobelpharma America's first product received FDA approval and launched in the U.S. Please visit our booth for more information.

## **Novotech**

**630**

16 Charlotte St  
Charleston SC 29403

[novotech-cro.com](http://novotech-cro.com)

Novotech is internationally recognized as the leading Asia Pacific centred Biotech CRO with global execution capabilities. Novotech is a clinical CRO with labs, phase I facilities, drug development consulting services and FDA regulatory expertise and has experience in over 5,000 clinical projects, including Phase I to Phase IV clinical trials and bioequivalence studies. Novotech is positioned to serve biotech clients conducting clinical trials in Asia Pacific, the US and Europe.

## **Ovid Therapeutics**

**405**

441 9th Avenue, 14th Floor  
New York NY 10001

[ovidrx.com](http://ovidrx.com)

Ovid Therapeutics is striving to conquer seizures and intractable brain disorders with courageous science by advancing a focused pipeline of targeted small molecule candidates to modulate the intrinsic and extrinsic factors involved in neuronal hyperexcitation, which can cause seizures and other neuropathological symptoms. Ovid's programs include GV101, a potent and highly selective ROCK2 inhibitor; OV329, a GABA-aminotransferase inhibitor; and OV350, a direct activator of the KCC2 transporter.

## **OWP Pharmaceuticals, Inc.**

**1109**

400 East Diehl Road, Suite 400  
Naperville IL 60563

[www.owppharma.com](http://www.owppharma.com)

OWP Pharmaceuticals' focus is to support providers and patients in the US with beneficial medications and to donate profits to ROW Global. ROW seeks to improve the education, diagnosis, and treatment available for those living with neurological disorders in under-resourced areas of the world. In short, OWP uses commercial success for the common good by supporting humanitarian projects in many countries.

## **PANTHERx Rare Pharmacy**

**404**

24 Summit Park Drive  
Pittsburgh PA 15275

[pantherxrare.com](http://pantherxrare.com)

## **PCDH19 Alliance**

**N747**

51 San Miguel Way  
Novato CA 94945

[www.pcdh19info.org](http://www.pcdh19info.org)

## **Peachtree Bioresearch Solutions**

**1217**

4985 Lower Roswell Rd #200  
Marietta GA 30068

[www.peachtreebrs.com](http://www.peachtreebrs.com)

Peachtree BioResearch Solutions is a full-service CNS focused CRO. Our associates have participated in the design, execution, or analysis of 300+ interventional trials in the CNS psychiatry and neurology therapeutic areas. These studies have enrolled nearly 10,000 patients at over 2,000 sites in the USA/North America, European Union, Latin America, and Asia. Peachtree has executed 51 interventional epilepsy studies, including 16 with children and adolescents. We specialize in rare disease.

## **Pediatric Epilepsy Research Consortium**

**N645**

PO Box 403  
Niwot CO 80544

[www.pediatricerc.com](http://www.pediatricerc.com)

The Pediatric Epilepsy Research Consortium consists of over 70 pediatric epilepsy centers that conduct practice-changing collaborative research. Our vision is to be the premier source for the latest research and standards of care in pediatric epilepsy. Our research is distributed across 13 Special Interest Groups and over 300 pediatric epileptologists, neurosurgeons, neuropsychologists, and other epilepsy researchers. Consider joining PERC if you want to make a difference in pediatric epilepsy.

## **Pediatric Epilepsy Surgery Alliance**

**N749**

969 Colorado Blvd Ste 101  
Los Angeles CA 90041

## **Pediatric Medical Group**

**535**

1301 Concord Terrace  
Sunrise FL 33323  
[www.pediatric.com](http://www.pediatric.com)

At Pediatric, our goal is to help you raise happy and healthy children. From wellness to illness, birth to adulthood, our pediatricians and specialists are dedicated to delivering the highest level of health care and support when your family needs it most. Bringing expertise and compassion to pediatric patients, our board-certified/eligible, fellowship-trained pediatric neurologists specialize in the diagnosis and treatment of neurological conditions facing children.

## **Persyst Development Corp.**

**323**

420 Stevens Ave – Ste 210  
Solana Beach CA 92075  
[www.persyst.com](http://www.persyst.com)

Persyst is the worldwide leader in EEG software. As standard of care, 211 of 233 members of the National Association of Epilepsy Centers use Persyst EEG monitoring and review. Similarly, 97 of 100 top U.S. Neurology hospitals use Persyst for EEG monitoring and review. Persyst is the only EEG trending and detection software integrated, sold & supported by every major EEG manufacturer.

## **Pinnacle Technology, Inc.**

**510**

2721 Oregon St  
Lawrence KS 66046  
[www.pinnaclet.com](http://www.pinnaclet.com)

Pinnacle offers turn-key wireless and tethered neurophysiological systems for mice and rats, including systems for EEG/EMG, biosensors, oxygen sensors, and FSCV. Optogenetics, electrical stimulation, synchronized video, and sleep deprivation can be added to most hardware setups, along with a variety of cages, stands and illuminators. Free acquisition software can be upgraded to premium analysis packages. Products can be customized to meet research needs.

## **PMT Corporation**

**830**

1500 Park Rd  
Chanhausen MN 55317  
[www.pmtcorp.com](http://www.pmtcorp.com)

PMT® Corporation's commitment to innovative products and customer satisfaction has made PMT a leader in epilepsy monitoring. PMT® utilizes the finest quality materials in the manufacturing process of their Cortac® Cortical Electrodes, sEEG and Depthalon® Depth Electrodes. PMT® Corporation has nationwide direct sales force available 24 hours a day and 365 days a year, along with distributors worldwide.

## **Praxis Precision Medicines**

**421**

99 High Street, 30th Floor  
Boston MA 02110  
[praxismedicines.com](http://praxismedicines.com)

Praxis Precision Medicines is a clinical-stage biopharmaceutical company translating insights from genetic epilepsies into the development of therapies for CNS disorders characterized by neuronal excitation-inhibition imbalance. Praxis has established a diversified, multimodal CNS portfolio including multiple programs across movement disorders and epilepsy, with four clinical-stage product candidates.

## **PsychoGenics Inc.**

**934**

215 College Road  
Paramus NJ 07652  
[www.psychogenics.com](http://www.psychogenics.com)

PsychoGenics is a preclinical CRO with expertise in CNS and orphan disorders. Our mission is to provide the best validated disease models and preclinical comprehensive capabilities to help companies discover the next generation of treatments and reduce the attrition rate in clinical development. Our capabilities include behavioral testing, electrophysiology, translational EEG, quantitative histology, molecular biology, and microdialysis.

## **PTC Therapeutics, Inc.**

**529, 531**

100 Corporate Court  
South Plainfield NJ 08690  
[www.ptcbio.com](http://www.ptcbio.com)

PTC is an established global biopharmaceutical company that delivers transformative therapies for people living with rare diseases. For 25 years, we have been harnessing our scientific platforms to create new therapies that address the underlying cause of the disease and deliver on our promise to create more moments for patients.

## **Quantum Neurodiagnostics**

**435**

P.O. Box 889  
Englewood CO 80151  
[www.quantumndx.com](http://www.quantumndx.com)

Fast, responsive, and reliable, Quantum Neurodiagnostics provides the highest quality remote EEG monitoring services for ICU, EMU, inpatient, and ambulatory care. Adam Wolff, MD and Ravi Shah, MD, both full-time neurologists, founded Quantum Neurodiagnostics over ten years ago to deliver boutique-level, customizable neurodiagnostic care to patients everywhere.

## **Rare Epilepsy Network (REN)**

**N846**

135 South LaSalle Street Suite 2850  
Chicago IL 60603  
[rareepilepsynetwork.org](http://rareepilepsynetwork.org)

Rare Epilepsy Network (REN) is 100+ rare epilepsy organizations collaborating to increase awareness of the rapidly growing number of rare epilepsies and promote patient-centered research. Visit our website: [rareepilepsynetwork.org](http://rareepilepsynetwork.org). Follow us on Linked In and Twitter at @RareEpilepsy. Get a one-stop list for more than 100 organizations each providing information, support and education about a specific rare epilepsy disorder. Research grants and collaborations are also available from our Members.

# Exhibitors

## Renishaw Healthcare Inc.

834

1001 Wesemann Dr  
West Dundee IL 60118  
[www.renishaw.com](http://www.renishaw.com)

Renishaw is applying cutting-edge precision engineering technology to the challenges of functional neurosurgery. The neuromate Gen III stereotactic robot provides a platform solution for functional neurosurgical procedures. It is used in many world-leading neurosurgical centers across the globe for DBS, SEEG, laser ablation, biopsy, and R&D applications.

## RhythmLink International, LLC

400

PO Box 2045  
Columbia SC 29202  
[www.rhythmink.com](http://www.rhythmink.com)

RhythmLink® International, LLC designs, manufactures and distributes medical devices in the CEEG, IONM and EMG fields as well as providing custom packaging, private labeling, custom products and contract manufacturing to its customers. RhythmLink is recognized as a leader within its field at providing the important physical connection between patients and the diagnostic equipment to record or elicit neurophysiologic biopotentials.

## Ricoh USA, Inc

429

300 Eagleview Boulevard Suite 200  
Exton PA 19341

[www.ricoh-usa.com/en/industries/healthcare/ricoh-meg-diagnostic-neurological-tool-to-measure-brain-activity](http://www.ricoh-usa.com/en/industries/healthcare/ricoh-meg-diagnostic-neurological-tool-to-measure-brain-activity)

RICOH's MEG brain scanner features: The ability to measure deep within the brain so you can detect and record brain activity down to the level of the hippocampus and hypothalamus. 160 superconducting sensors in the helmet detect and amplify magnetic fields generated by neurons up to 7 1/2 centimeters from the sensors. Coaxial gradiometer sensors reduce magnetic interference and advanced algorithms filter out noise so signals of interest can be easily identified.

## RosmanSearch

1234

30799 Pinetree Rd - #250  
Pepper Pike OH 44124  
[www.rosmansearch.com](http://www.rosmansearch.com)

RosmanSearch is a Neurosurgery, Neurology, and Urology recruitment firm. We place quality providers with quality practices nationwide. We are the only search firm with dedicated teams specializing in neuroscience. Our mission is to be the best, the most expert, and the one that is known for quality – every time!

## ROW Foundation

1111

400 E. Diehl Road Suite 400  
Naperville IL 60563  
[rowglobal.org](http://rowglobal.org)

ROW Foundation is a 501(c)(3) private foundation working to improve the quality of care for persons living with epilepsy and associated psychiatric disorders in under-resourced areas of the world. Since its start in 2015, ROW Foundation has established 81 partnerships in 37 countries and made cumulative grants in excess of \$22 million, including the distribution of more than 192,000 prescription months of anti-seizure medication to those who otherwise would go without.

## Seizure Action Plan Coalition

N840

11822 Justice Avenue Suite B4  
Baton Rouge LA 70816

[www.seizureactionplans.org](http://www.seizureactionplans.org)

The Seizure Action Plan Coalition began in 2020 as a labor of love between the LGS Foundation, Dravet Syndrome Foundation, and TSC Alliance. The organizations knew there was an opportunity to bring the epilepsy community together to bring attention and awareness to Seizure Action Plans for people with epilepsy. Epilepsy Alliance America has been the managing entity of the coalition since 2023. Join us for Seizure Action Plan Awareness Week coming up February 12 – 19, 2024.

## SeizureTracker.com

939

P.O. Box 8005  
Springfield VA 22151  
[www.seizuretracker.com](http://www.seizuretracker.com)

Seizure Tracker is dedicated to providing patients, doctors and researchers with comprehensive tools to help understand relationships between seizure activity and anti-epileptic therapies.

## Simons Searchlight

N851

160 5th Ave  
New York NY 10010  
[www.simonssearchlight.org](http://www.simonssearchlight.org)

Simons Searchlight is an online international research program for over 175 rare genetic neurodevelopmental disorders. By joining our community, you contribute to a database used by scientists worldwide to advance understanding of these conditions. Through online surveys and sample collection, we gather valuable data to improve lives and drive scientific progress. Join us in shaping the future of rare genetic neurodevelopmental disorder research. Visit our website to learn more.

## SK Life Science

809

461 From Road 5th Floor  
Paramus NJ 07652  
[www.sklifescienceinc.com](http://www.sklifescienceinc.com)

At SK Life Science we are committed to the patient communities we serve. We are dedicated to finding new treatments that will address the needs of those living with a central nervous system (CNS) disorder and to change the future of cancer care. Please visit us at [www.SKLifeScience.com](http://www.SKLifeScience.com).

## **SLC6A1 Connect**

**N847**

1939 Temperence Hill Drive  
Frisco TX 75034

[www.slc6a1connect.org](http://www.slc6a1connect.org)

SLC6A1 Connect is a patient organization actively funding research for SLC6A1 (GAT1) disorders. Prevalence 1:35,000; Clinical Trial Ready; Two Registries; Natural History Study; FREE Data; Three Centers of Excellence; Excellent Mouse Models; Numerous Patient Derived Cell Models 10th Cause of Autism 6th Cause of Epilepsy Leading Association with Mental Illness We are energetic and ready to cure SLC6A1. Reach out!

## **SpecialtyCare**

**1417**

3 Maryland Farms, Suite 200  
Brentwood TN 37027

[specialtycareus.com](http://specialtycareus.com)

SpecialtyCare is the market leader in perfusion and intraoperative neuromonitoring, and the industry's choice for autotransfusion, sterile processing consulting, surgical assist, and minimally invasive surgical support. We are committed to delivering exceptional care outcomes, patient safety, and financial results in more than 1,200 hospitals and health systems, supporting 13,500 physicians during 500,000+ procedures annually.

## **Stoke Therapeutics**

**518**

45 Wiggins Ave  
Bedford MA 01730

[www.stoketherapeutics.com](http://www.stoketherapeutics.com)

Stoke Therapeutics: Addressing the underlying cause of severe diseases by upregulating protein expression with RNA-based medicines. Using Stoke's proprietary TANGO (Targeted Augmentation of Nuclear Gene Output) approach, Stoke is developing antisense oligonucleotides (ASOs) to selectively restore protein levels.

## **Stratus**

**1030**

4545 Fuller Drive, 100  
Irving TX 75038

[stratusneuro.com](http://stratusneuro.com)

Stratus is the nation's leading supplier of EEG solutions to hospitals and private practice. We strive to make EEG testing more efficient and effective for providers. Stratus offers an array of services, technology and a proprietary web-based EEG software to meet your needs. Our large pool of registered-EEG techs provide EMU and ICU EEG monitoring 24/7/365, ambulatory and routine EEG, EEG pruning and annotation, and other solutions. We also support centralized and decentralized clinical trials.

## **STXBP1 Disorders / Foundation**

**N750**

P.O. Box 1148  
Holly Springs NC 27540

[stxbp1disorders.org](http://stxbp1disorders.org)

STXBP1 Foundation is dedicated to finding a cure for STXBP1 Disorders while improving the lives of our patients and families. Founded in 2017, STXBP1 Foundation is a parent-led advocacy organization. STXBP1 Disorders are rare epileptic and neurodevelopmental disorders caused by changes in the STXBP1 gene. With an incidence of approximately 1 in 30,000 live births, STXBP1 Disorders are one of the most common genetic causes of epilepsy. Contact [info@stxbp1disorders.org](mailto:info@stxbp1disorders.org) for more information.

## **Substantial Medical Consulting**

**1208**

875 N Eldridge Pkwy  
Houston TX 77079

[substantialmedconsult.com](http://substantialmedconsult.com)

## **Sumitomo Pharma America, Inc.**

**1333**

84 Waterford Dr  
Marlborough MA 01752

[www.sumitomo-pharma.com/](http://www.sumitomo-pharma.com/)

Sumitomo Pharma America (SMPA) is focused on delivering therapeutic and scientific breakthroughs in the areas of critical patient needs spanning psychiatry & neurology, oncology, urology, women's health, rare disease, and cell & gene therapies. The company's diverse portfolio includes several marketed products and a robust pipeline of early-to late-stage assets.

## **SUN Pharma**

**1308**

2 Independence Way  
Princeton NJ 08540

[www.sunpharma.com/usa](http://www.sunpharma.com/usa)

Sun Pharma is a leading global pharmaceutical company with specialty and generic presence in the world's largest pharma markets. The Company has solidified its position as a major player in the U.S. generics market and is continuously expanding its footprint in the specialty segment, focusing on dermatology, ophthalmology, and oncology.

## **Syngap1 Foundation**

**N651**

1012 14th Street NW, Suite 500  
Washington DC 20005

The SYNGAP1 Foundation is the leading 501(c)3 nonprofit patient advocacy organization dedicated to improving the quality of life for patients and families affected by SYNGAP1. Our priorities include raising public awareness, patient and family advocacy initiatives, educational programs, scientific research conferences, and financial research support. We are dedicated to improving lives affected by SYNGAP1 & related overlapping neurological disorders.

# Exhibitors

## **Takeda Pharmaceuticals**

**401**

Thurgauerstrasse 130  
Glattpark 8152  
Switzerland

[www.takeda.com](http://www.takeda.com)

Takeda Neuroscience is driven by the unmet needs of patients with rare neurological diseases. Our mission is to bring innovative and potentially disease-modifying medicines to these patients by leveraging advances in molecularly and genetically defined targets, biomarkers, and targeted modalities. Our commitment to patients is focused on developing new treatments for those who need them most.

## **Talos | AGCS**

**829**

21920 W Cleveland Ave  
New Berlin WI 53146

[talosagcs.com](http://talosagcs.com)

Talos revolutionizes seizure detection and analysis, uncovering even the most subtle signs of seizure – fast. Our software combines advanced signal processing with deep clinical expertise. Talos' rapid analysis recognizes signs of all major seizure types in a fraction of time compared to conventional methods. Our new tool is designed by clinicians, for clinicians. We understand both the intricacies of seizure detection and the nuances of working in healthcare.

## **TESS Research Foundation**

**N649**

PO Box 53 655 Oak Grove Ave  
Menlo Park CA 94026

[tessresearch.org](http://tessresearch.org)

TESS Research Foundation drives research for SLC13A5 Epilepsy, a recessive monogenic citrate transporter disorder. Since 2015, TESS Research Foundation has gone from identifying the gene responsible for SLC13A5 Epilepsy to a gene therapy in development. To date we have awarded more than \$2 million dollars in direct research grants to more than 20 institutions around the world. We are research ready and eager to partner with you.

## **The Anita Kaufmann Foundation**

**N745**

PO Box 11  
New Milford NJ 07646

[www.purpledayeveryday.org](http://www.purpledayeveryday.org)

The Anita Kaufmann Foundation is a 501(C)(3) public charity whose mission is to make the world a kinder place for people with epilepsy and brain trauma through seizure first aid training, education, and advocacy. The Foundation (AKF) was established through a bequest of Anita Kaufmann, a brilliant lawyer and businessperson with epilepsy, who wanted to help others deal with the discrimination she faced. AKF is all about education and fighting discrimination.

## **The FamilieSCN2A Foundation**

**N641**

140 Canterbury Circle  
East Longmeadow MA 01028

[www.scn2a.org](http://www.scn2a.org)

Our MISSION is to accelerate research, build community and advocate to improve the lives of those affected by SCN2A-related disorders around the world. Our VISION is a world with effective treatments and cures for all SCN2A-related disorders. Our Values are URGENCY, INTEGRITY, COLLABORATION, and INCLUSION. Please stop by T139 to learn about our grant programs and find ways to collaborate with us to improve the lives of those with SCN2A-related disorders around the world.

## **The North American AED Pregnancy Registry**

**941**

125 Nashua Street - Ste 8438D  
Massachusetts General Hospital  
Boston MA 02114

[www.aedpregnancyregistry.org](http://www.aedpregnancyregistry.org)

The NA AED Pregnancy Registry began enrolling women in 1997 and now has over 14,000 women enrolled from all over North America. The Registry collects data on pregnancy status, medication type and dosage, and birth outcomes from pregnant women who use antiepileptic medication, via 3 telephone interviews: at enrollment, at the 7th month of gestation and 2 months postpartum. Medical records are collected from each participant. Findings are released as soon as they are statistically significant.

## **TSC Alliance**

**935**

8737 Colesville Road Suite 400  
Silver Spring MD 20910

[www.tscalliance.org](http://www.tscalliance.org)

The TSC Alliance® is an internationally recognized nonprofit that does everything it takes to improve the lives of people with tuberous sclerosis complex (TSC). We drive research, increase care quality and access, inspire hope and advocate with and for all affected by the disease. With the power of individuals, families, organizations and more, we can create a future where everyone with TSC can realize their full potential – no matter how complex their journeys are to get there.

## **UCB, Inc.**

**505**

1950 Lake Park Dr  
Smyrna GA 30080

[www.ucb-usa.com](http://www.ucb-usa.com)

At UCB, we come together everyday laser-focused on a simple question: How will this create value for people living with severe diseases? We are a global biopharmaceutical company committed to innovation to improve the lives of people with neurological and immunological diseases, finding solutions to meet their unique needs.





## **UF Health Shands Hospital Comprehensive Epilepsy Program**

**635**

PO Box 100302  
Gainesville, FL 32608  
1505 SW Archer Road,  
Gainesville FL 32606

[neurology.ufl.edu/divisions/epilepsy/](http://neurology.ufl.edu/divisions/epilepsy/)

The UF Health Shands Hospital Comprehensive Epilepsy Program is proudly acknowledged by the National Association of Epilepsy Centers, as a Level 4 program, the highest level of distinction possible for specialized epilepsy centers. While UF Health offers conventional treatments, patients also have access to advanced treatment options that are hard to find elsewhere.

## **UNEEG medical**

**729**

Borupvang 2 3450 Allerød  
Allerød 3450  
Denmark

[www.uneeg.com](http://www.uneeg.com)

## **Upsher-Smith Laboratories, LLC**

**217**

6701 Evenstad Drive  
Maple Grove MN 55369

[www.upsher-smith.com](http://www.upsher-smith.com)

Upsher-Smith Laboratories, LLC is a trusted U.S. pharmaceutical company that strives to improve the health and lives of patients through an unwavering commitment to high-quality products and sustainable growth. We bring generics and brands to a wide array of customers, always backed by our attentive level of service, our strong industry relationships, and our dedication to uninterrupted supply. For more information, visit [www.upsher-smith.com](http://www.upsher-smith.com).

## **UT Health Austin Pediatric Neurosciences at Dell Children's**

**317**

4910 Mueller Blvd  
Austin TX 78723

[www.partnersincare.health/ut-health-austin-pediatric-neurosciences-at-dell-childrens/comprehensive-pediatric-epilepsy-center](http://www.partnersincare.health/ut-health-austin-pediatric-neurosciences-at-dell-childrens/comprehensive-pediatric-epilepsy-center)

The Dell Children's Comprehensive Pediatric Epilepsy Center is a specialty program within UT Health Austin Pediatric Neurosciences at Dell Children's, a clinical partnership between Dell Children's Medical Center and UT Health Austin. We are the only dedicated pediatric epilepsy center which houses the only dedicated pediatric EMU in Central Texas. The Comprehensive Pediatric Epilepsy Center diagnoses, treats, and manages the care for children and adolescents with seizures and epilepsy.

## **Variantyx**

**1210**

Variantyx Variantyx  
1671 Worcester Rd, Suite 300  
Framingham 01701

[www.variantyx.com/](http://www.variantyx.com/)

## **vCreate**

**530**

7 Devereux Road  
Windsor SL4 1JJ  
United Kingdom

[www.vcreate.tv/](http://www.vcreate.tv/)

vCreate Neuro is a secure clinical video service for remote diagnosis and management of Epilepsy and other Paroxysmal Disorders

## **Veterans Affairs Epilepsy Centers of Excellence (ECOEs)**

**N950**

395 Wildwood Drive  
Raeford NC 28376

The ECOEs were formed in 2008 under Public Law S. 2162 with a mission of improving the health and well-being of Veteran patients with epilepsy and other seizure disorders through the integration of clinical care, outreach, research, and education. The ECOE is comprised of 4-6 centers with nineteen national program sites within the Veterans Health Administration (VHA) established by Congress to address the complex issues that arise in patient care, health care management, and research.

## **Wolters Kluwer**

**1024**

Two Commerce Square 2001 Market St  
Philadelphia PA 19103

[shop.lww.com](http://shop.lww.com)

Wolters Kluwer provides trusted clinical technology and evidence-based solutions that engage clinicians, patients, researchers, and the next generation of healthcare providers. With a focus on clinical effectiveness, research and learning, safety and surveillance, and interoperability and data intelligence, our proven solutions drive effective decision-making and consistent outcomes across the continuum of care.

## **WVU Medicine Rockefeller Neuroscience Institute**

**1240**

1 Medical Center Drive  
Morgantown WV 26506

[wvumedicine.org](http://wvumedicine.org)

The West Virginia University Health System includes more than 20 member hospitals and has more than 2,400 licensed beds, 3,900 providers, and nearly 30,000 employees. The Department of Neurology's Adult Epilepsy Division and the WVU Medicine Children's Neuroscience Center of Excellence are components of the collaborative efforts of the WVU Rockefeller Neuroscience Institute. WVU Medicine maintains a Level IV Comprehensive Epilepsy Center.

# Exhibitors

## Xenon Pharmaceuticals

502

200-3650 Gilmore Way  
Burnaby BC V5G 4W8  
Canada

[www.xenon-pharma.com](http://www.xenon-pharma.com)

Xenon Pharmaceuticals (NASDAQ:XENE) is a clinical stage biopharmaceutical company committed to developing innovative therapeutics to improve the lives of people living with neurological disorders. We are advancing a novel product pipeline to address areas of high unmet medical need, with a focus on advancing multiple Phase 3 trials in epilepsy.

## Zeto, Inc.

721

4701 Patrick Henry Dr Bldg # 25  
Santa Clara CA 95054

[www.zeto-inc.com](http://www.zeto-inc.com)

Zeto, Inc. is an award-winning, privately held medical technology company located in Santa Clara, CA, that is focused on transforming the way electroencephalography is performed at hospitals and clinics. Zeto's revolutionary FDA-cleared EEG headset and cloud platform bring the traditional EEG procedure to the 21st century. The company plans to leverage its hardware and software technology to achieve better outcomes for neurological conditions such as epilepsy, autism, stroke and concussion.

## Zimmer Biomet

1033

1520 Tradeport Drive  
Jacksonville FL 32218  
[www.zimmerbiomet.com/en](http://www.zimmerbiomet.com/en)

Zimmer Biomet® is committed to improving the quality of life for patients worldwide and enhancing health outcomes. We're proud to offer products such as ROSA ONE® and EVO SEEG® and Cortical Electrodes, an integrated set of technologies & services that help streamline the delivery of care and facilitate functional neurosurgery.

## 2023 AES Fellows Program

**Welcome to Orlando, AES Fellows!**  
**More than 100 clinical and postdoctoral fellows have been given support to attend AES 2023.**

### Participants will:

- Learn about advances in research and care
- Engage with expert mentors and peers
- Participate in sessions on career skills and career pathways

### The 2023 Fellows Program is supported by:

- Jazz Pharmaceuticals, Inc. (Fellows Welcome Orientation)
- Upsher-Smith Laboratories, LLC (Fellows Program)



## THANK YOU FOR YOUR GENEROSITY!

Many thanks to AES members and supporters who further the Society's mission with their philanthropic gifts.

AES recognizes and deeply appreciates the generosity of all donors and contributors.

### PLANNED GIFTS

Make a lasting impact during and beyond your lifetime

### NAMED FUNDS

Support fellowships, research grants and travel awards

### ANNUAL FUND

Put your dollars to work today where the need is greatest



Learn more and donate at  
[aesnet.org/impact](http://aesnet.org/impact)

# Exhibitors by Category

## Accreditation/Credentialing

American Board of Clinical Neurophysiology  
American Association and Board of Neuroscience Nurses (AANN/ABNN)  
American Board of Psychiatry and Neurology  
UT Health Austin Pediatric Neurosciences at Dell Children's

## Brain Mapping

Compumedics/Neuroscan  
National Institute of Neurological Disorders & Stroke (NINDS)  
NeuroNexus  
UF Health Neurology  
Natus  
PMT Corporation  
EMS Biomedical  
Brainbox Ltd  
Alpha MED Scientific Inc.  
MEGIN  
UT Health Austin Pediatric Neurosciences at Dell Children's  
CREmedical Corp.  
Zimmer Biomet  
Ad-Tech Medical Instrument Corp.  
CTF MEG Neuro Innovations Inc.  
Nexstim  
ANT North America

## Clinical Research Organization

Compumedics/Neuroscan  
National Institute of Neurological Disorders & Stroke (NINDS)  
Novotech  
UF Health Neurology  
MEW Network  
Rare Epilepsy Network (REN)  
Simons Searchlight  
PsychoGenics Inc.  
The North American AED Pregnancy Registry  
GRIN Therapeutics  
Julius Clinical  
Invitae

Peachtree Bioresearch Solutions  
First Choice Neurology  
GeneDx  
UT Health Austin Pediatric Neurosciences at Dell Children's  
FHC, Inc. / Neuralynx, Inc.

## Clinical Tools

Empatica  
Compumedics/Neuroscan  
UF Health Neurology  
UNEEG medical  
Rare Epilepsy Network (REN)  
Next Gen Neuro  
Epitel, Inc.  
SeizureTracker.com  
The North American AED Pregnancy Registry  
Neuromonitoring Technologies  
Neurovative Diagnostics  
Invitae  
LVIS  
GeneDx  
UT Health Austin Pediatric Neurosciences at Dell Children's  
Persyst Development Corp.  
FHC, Inc. / Neuralynx, Inc.  
CTF MEG Neuro Innovations Inc.  
Neurotech, LLC

## Diagnostics

Quantum Neurodiagnostics  
Empatica  
Advanced Brain Monitoring Inc.  
Neuro Event Labs  
Natus  
PMT Corporation  
Rare Epilepsy Network (REN)  
Next Gen Neuro  
Cadwell Laboratories, Inc.  
Neuromonitoring Technologies  
Stratus  
Neurovative Diagnostics  
Invitae

EMS Biomedical  
First Choice Neurology  
LVIS  
Quantum Neurodiagnostics  
GeneDx  
BioSerenity, Inc.  
UT Health Austin Pediatric Neurosciences at Dell Children's  
Persyst Development Corp.  
Ad-Tech Medical Instrument Corp.  
IntraNerve Neuroscience  
RhythmLink International, LLC  
ANT North America  
DIXI Medical USA  
vCreate  
Neurotech, LLC

## Education

Compumedics/Neuroscan  
National Institute of Neurological Disorders & Stroke (NINDS)  
UF Health Neurology  
The Anita Kaufmann Foundation  
Natus  
Seizure Action Plan Coalition  
Epilepsy Alliance Florida  
LGS FOUNDATION  
Rare Epilepsy Network (REN)  
DEE-P Connections  
International SCN8A Research  
American Association and Board of Neuroscience Nurses (AANN/ABNN)  
TSC Alliance  
The North American AED Pregnancy Registry  
Cadwell Laboratories, Inc.  
Stratus  
GRIN Therapeutics  
Neurovative Diagnostics  
UT Health Austin Pediatric Neurosciences at Dell Children's  
RhythmLink International, LLC  
International League Against Epilepsy

# Exhibitors by Category

## EEG Systems

Pinnacle Technology, Inc.  
Compumedics/Neuroscan  
Advanced Brain Monitoring Inc.  
CortiCare, Inc.  
NeuroNexus  
UF Health Neurology  
Zeto, Inc.  
UNEEG medical  
Natus  
PMT Corporation  
Beacon Biosignals  
Epitel, Inc.  
PsychoGenics Inc.  
NeuroPace, Inc.  
Cadwell Laboratories, Inc.  
Neuromonitoring Technologies  
Stratus  
Neurovative Diagnostics  
EMS Biomedical  
Brainbox Ltd  
Alpha MED Scientific Inc.  
BioSerenity, Inc.  
UT Health Austin Pediatric  
Neurosciences at Dell Children's  
CREmedical Corp.  
NeuroPace, Inc.  
FHC, Inc. / Neuralynx, Inc.  
CTF MEG Neuro Innovations Inc.  
RhythmLink International, LLC  
ANT North America

## Electrodes

Pinnacle Technology, Inc.  
NeuroNexus  
UF Health Neurology  
MVAP Medical Supplies

Natus  
PMT Corporation  
Epitel, Inc.  
Cadwell Laboratories, Inc.  
EMS Biomedical  
Brainbox Ltd  
Alpha MED Scientific Inc.  
BioSerenity, Inc.  
LIFESYNC  
CREmedical Corp.  
Zimmer Biomet  
Ad-Tech Medical Instrument Corp.  
FHC, Inc. / Neuralynx, Inc.  
RhythmLink International, LLC

## Genetic Services

UF Health Neurology  
International SCN8A Research  
The North American AED Pregnancy  
Registry  
Invitae  
GeneDx  
UT Health Austin Pediatric  
Neurosciences at Dell Children's

## Hospital/Medical Center

National Institute of Neurological  
Disorders & Stroke (NINDS)  
UF Health Neurology  
Children's Health  
Epitel, Inc.  
The North American AED Pregnancy  
Registry  
First Choice Neurology  
UT Health Austin Pediatric  
Neurosciences at Dell Children's  
Nicklaus Children's Hospital

## Imaging

UF Health Neurology  
First Choice Neurology  
Brainbox Ltd  
Alpha MED Scientific Inc.  
MEGIN  
UT Health Austin Pediatric  
Neurosciences at Dell Children's  
CTF MEG Neuro Innovations Inc.  
RhythmLink International, LLC

## Medical Device

Monteris Medical  
Empatica  
Compumedics/Neuroscan  
Advanced Brain Monitoring Inc.  
LivaNova  
CortiCare, Inc.  
GBR Medical  
Zeto, Inc.  
UNEEG medical  
MVAP Medical Supplies  
Neuro Event Labs  
Natus  
AIT Austrian Institute of Technology  
PMT Corporation  
Beacon Biosignals  
Epitel, Inc.  
NeuroPace, Inc.  
Cadwell Laboratories, Inc.  
EMS Biomedical  
MEGIN  
BioSerenity, Inc.  
LIFESYNC  
Persyst Development Corp.  
Zimmer Biomet  
NeuroPace, Inc.

Innovation Pavilion supported by Medtronic  
**Stop by the Medtronic Innovation Pavilion**  
to hear from key leaders about  
***Epilepsy Management: Care Paradigms for Focal Epilepsy***

Location: Rear of Exhibit Hall, 200 Aisle  
Saturday, December 2 ..... 12:00–6:00 PM  
Sunday, December 3 ..... 10:00 AM–4:00 PM  
Monday, December 4 ..... 10:00 AM–2:00 PM

## Exhibitors by Category

### Medical Device (continued)

LivaNova  
Ad-Tech Medical Instrument Corp.  
FHC, Inc. / Neuralynx, Inc.  
CTF MEG Neuro Innovations Inc.  
Nexstim  
ANT North America  
Medtronic  
DIXI Medical USA  
MedTech International Group

### Medical Equipment

Monteris Medical  
Compumedics/Neuroscan  
UNEEG medical  
Natus  
PMT Corporation  
Renishaw Healthcare Inc.  
Cadwell Laboratories, Inc.  
Stratus  
EMS Biomedical  
Brainbox Ltd  
FHC, Inc. / Neuralynx, Inc.  
ANT North America

### Mobile App

Empatica  
Compumedics/Neuroscan  
National Institute of Neurological Disorders & Stroke (NINDS)  
SeizureTracker.com  
Persyst Development Corp.

### Monitoring System

Quantum Neurodiagnostics  
Empatica  
Pinnacle Technology, Inc.  
Compumedics/Neuroscan  
Advanced Brain Monitoring Inc.  
CortiCare, Inc.  
UNEEG medical  
Neuro Event Labs  
Natus  
PMT Corporation  
Next Gen Neuro

Epitel, Inc.  
SeizureTracker.com  
The North American AED Pregnancy Registry  
NeuroPace, Inc..  
Cadwell Laboratories, Inc.  
Neuromonitoring Technologies  
Stratus  
Neurovative Diagnostics  
EMS Biomedical  
LVIS  
Quantum Neurodiagnostics  
LIFESYNC  
NeuroPace, Inc.  
FHC, Inc. / Neuralynx, Inc.  
ANT North America  
vCreate  
Neurotech, LLC

### Other

Pediatric Medical Group  
National Institute of Neurological Disorders & Stroke (NINDS)  
CACNA1A Foundation  
Pediatric Epilepsy Research Consortium  
MEW Network  
Epilepsy Alliance Florida  
Foundation for USP7 Related Diseases  
GRIN Therapeutics  
SpecialtyCare  
MedTech International Group

### Patient Advocacy Group

The FamilieSCN2A Foundation  
MEW Network  
TESS Research Foundation  
Glut1 Deficiency Foundation  
The Anita Kaufmann Foundation  
Hope for HIE  
Empowering Epilepsy  
STXBP1 Disorders/Foundation  
Epilepsy Alliance America  
Seizure Action Plan Coalition  
Epilepsy Alliance Florida

LGS FOUNDATION  
Rare Epilepsy Network (REN)  
SLC6A1 Connect  
DEE-P Connections  
Coalition to Cure CHD2  
International SCN8A Research  
TSC Alliance  
The North American AED Pregnancy Registry  
CSNK2A1 Foundation  
GRIN Therapeutics

### Pharmaceutical

PTC Therapeutics, Inc.  
PTC Therapeutics Medical Affairs  
Jazz Pharmaceuticals  
The North American AED Pregnancy Registry  
Marinus Pharmaceuticals, Inc.  
GRIN Therapeutics  
OWP Pharmaceuticals  
Aucta Pharmaceuticals  
Sumitomo Pharma  
SUN Pharma  
Alpha MED Scientific Inc.  
Sumitomo Pharma  
Sumitomo Pharma  
Stoke Therapeutics  
Xenon Pharmaceuticals  
Neurelis  
Neurelis  
Upsher-Smith Laboratories, LLC  
Catalyst Pharmaceuticals, Inc.  
Xenon Pharmaceuticals  
UCB, Inc.  
Stoke Therapeutics  
SK Life Science  
Ovid Therapeutics  
Xenon Pharmaceuticals

### Practice Services

The North American AED Pregnancy Registry

# Exhibitors by Category

## Professional Society

American Clinical Neurophysiology Society

American Association and Board of Neuroscience Nurses (AANN/ABNN)

## Publication

National Institute of Neurological Disorders & Stroke (NINDS)

GRIN Therapeutics

WVU Medicine

Wolters Kluwer Health

International League Against Epilepsy

## Recruiter

Pediatric Medical Group

RosmanSearch, Inc.

SpecialtyCare

## Research Aid

National Institute of Neurological Disorders & Stroke (NINDS)

NeuroNexus

DEE-P Connections

SeizureTracker.com

ANT North America

## Seizure Detection

Ricoh USA, Inc

Empatica

Pinnacle Technology, Inc.

CortiCare, Inc

NeuroNexus

UF Health Neurology

Zeto, Inc.

Natus

AIT Austrian Institute of Technology

PMT Corporation

Beacon Biosignals

Next Gen Neuro

Epitel, Inc

Cadwell Laboratories, Inc.

EMS Biomedical

Alpha MED Scientific Inc.

Persyst Development Corp.

Ad-Tech Medical Instrument Corp.

DIXI Medical USA

## Software

Monteris Medical

Empatica

Pinnacle Technology, Inc.

Advanced Brain Monitoring Inc

NeuroNexus

Natus

AIT Austrian Institute of Technology

Beacon Biosignals

Epitel, Inc

SeizureTracker.com

Stratus

EMS Biomedical

Alpha MED Scientific Inc.

MEGIN

BioSerenity, Inc.

Persyst Development Corp.

FHC, Inc. / Neuralynx, Inc.

## Surgical Tool

Monteris Medical

Pinnacle Technology, Inc.

DIXI Medical USA

## Testing

Quantum Neurodiagnostics

Advanced Brain Monitoring Inc

NeuroNexus

Stratus

Neurovative Diagnostics

Quantum Neurodiagnostics

BioSerenity, Inc.

Neurotech, LLC

## Video Tool

SeizureTracker.com

EMS Biomedical

ANT North America

vCreate

# SAVE THE DATE!



## AES 2024 ANNUAL MEETING

December 6 - 10  
Los Angeles, CA

**2025**

AES Annual Meeting  
December 5 - 9  
Atlanta, GA

**2027**

AES Annual Meeting  
December 3 - 7  
Baltimore, MD

**2026**

AES Annual Meeting  
December 4 - 8  
Denver, CO

**2028**

AES Annual Meeting  
December 1 - 5  
Seattle, WA

# Comprehensive Care in Developmental and Epileptic Encephalopathies

## Expert and Caregiver Perspectives

SUNDAY, DECEMBER 3, 2023 | 6:30 – 8:00 PM ET

REGISTRATION AND MEAL: 6:00 PM | PRESENTATION: 6:30 PM

HYATT REGENCY ORLANDO, 9801 INTERNATIONAL DRIVE  
ORLANDO, FLORIDA | ROOM: PLAZA BALLROOM D-F (CONVENTION LEVEL)

**IN-PERSON** 

### CHAIR



**Elaine C. Wirrell, MD**  
Professor of Neurology  
Divisions of Child and Adolescent  
Neurology and Epilepsy  
Department of Neurology  
Chair of Child and  
Adolescent Neurology  
Mayo Clinic  
Rochester, Minnesota

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Nationwide Children's Hospital  
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**JOIN US FOR A CME DINNER SYMPOSIUM**  
AT THE AMERICAN EPILEPSY SOCIETY 2023 ANNUAL MEETING



## **EXPECT THE UNEXPECTED**

### **Optimizing Diagnostic and Treatment Approaches in Dravet Syndrome**

**SUNDAY, DECEMBER 3, 2023**

**6:00 PM – 8:00 PM**

Hyatt Regency Orlando  
Tower 1, Plaza Ballroom H, Convention Level

#### **PROGRAM CHAIR**

**M. Scott Perry, MD**

Head of Neurosciences  
Jane and John Justin Institute for Mind Health  
Cook Children's Medical Center  
Fort Worth, Texas

**PRE-REGISTER**



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Pre-registration does not guarantee seating.  
On-site registration may be available,  
space permitting.

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Developed through a strategic collaboration with



CME

# Seizure Action Plans and Rescue Medications in Adults With Epilepsy

FRIDAY, DECEMBER 1, 2023 | 6:30 – 8:00 PM ET

REGISTRATION AND MEAL: 6:00 PM | PRESENTATION: 6:30 PM

HYATT REGENCY ORLANDO, 9801 INTERNATIONAL DRIVE  
ORLANDO, FLORIDA | ROOM: PLAZA BALLROOM D-F (CONVENTION LEVEL)

IN-PERSON 

## CHAIR



**Patricia E. Penovich, MD**  
Emeritus, Minnesota Epilepsy Group, PA  
St Paul, Minnesota  
Adjunct Clinical Professor  
University of Minnesota  
Minneapolis, Minnesota

## FACULTY



**Joseph I. Sirven, MD**  
Professor of Neurology  
Mayo Clinic Florida  
Jacksonville, Florida



[www.medscape.org/symposium/seizure-rescue-medication](http://www.medscape.org/symposium/seizure-rescue-medication)

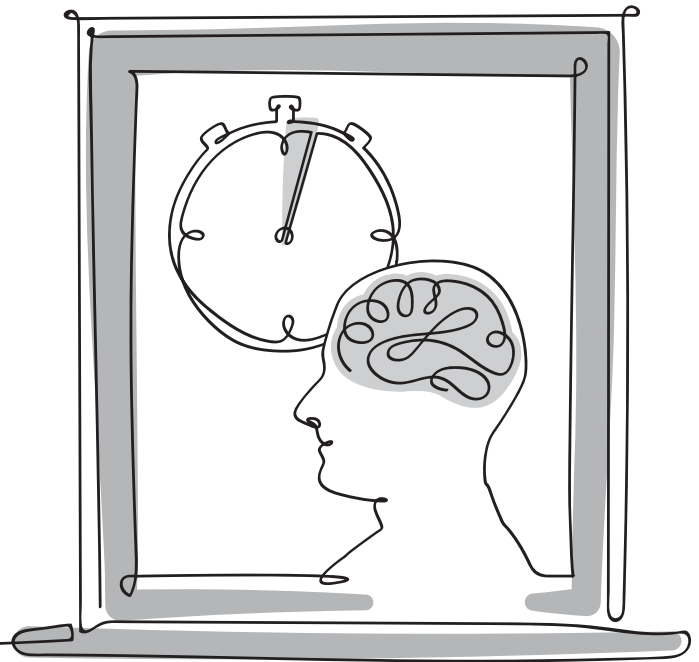
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Supported by an independent educational grant from Neurelis, Inc.

Medscape **LIVE!**

# The 'window of opportunity': Recognizing the importance of rapid and early seizure termination

Saturday, December 2, 2023, 6:00–7:30 ET  
Plaza Ballroom D-F (Convention Level),  
Hyatt Regency, Orlando, Florida



We look forward to welcoming you in Florida and hope you will join us for our expert-led symposium!

Through presentations, discussions, and interactive case studies we will explore:

- The burden of breakthrough seizures and the risk of progression to more severe seizure episodes
- The short window of opportunity to stop a seizure before progression to a more severe seizure type or status epilepticus, and the impact of delayed intervention
- How the emerging concept of 'rapid and early seizure termination (REST)' could support clinical practice
- Recent work to develop consensus recommendations to help guide clinical practice in the future

We look forward to seeing you!

## Symposium faculty



### Professor Eugen Trinka

Chair, Department of Neurology, Neurointensive Care and Neurorehabilitation, Christian Doppler Medical Centre, Paracelsus Medical University, Salzburg, Austria



### Dr. Kamil Detyniecki

Associate Professor of Neurology, Comprehensive Epilepsy Center, University of Miami, Miller School of Medicine, Miami, Florida, USA



### Professor Lawrence J. Hirsch

Yale School of Medicine, New Haven, Connecticut, USA



### Professor Jesus Eric Pina-Garza

The Children's Hospital at TriStar Centennial, Nashville, Tennessee, USA





## Join SK Life Science for an Expert-Led Symposium at the American Epilepsy Society 2023 Annual Meeting

### Mark Your Calendar

<b>Date:</b> Saturday, December 2, 2023	<b>Location:</b> Orange County Convention Center West Concourse 9800 International Drive Orlando, FL 32189	<b>Room Assignment:</b> Plaza Ballroom H
<b>Time:</b> 6:00 PM ET		

*Dinner will be provided.*

### Impact of Continued Seizures and Strategies for Seizure Reduction/Freedom



**Pavel Klein, MB, BChir**

Director, Mid-Atlantic Epilepsy & Sleep Center  
Bethesda, Maryland



**Danielle Becker, MD, MS, FAES**

Division Director of Epilepsy  
Associate Professor of Neurology  
The Ohio State University Wexner Medical Center  
Columbus, Ohio



**Gregory Krauss, MD**

Professor, Department of Neurology  
Johns Hopkins University School of Medicine  
Baltimore, Maryland



**Patrick Kwan, BMedSci, MB BChir, PhD, FRCP**

Department of Neuroscience,  
Central Clinical School, Monash University  
Monash Institute of Medical Engineering  
Epilepsy Unit, Alfred Hospital, Melbourne, Australia

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100% seizure reduction  
is possible, so



**WHY  
SETTLE  
FOR 50%**



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Get the full picture  
of what's possible  
at **BOOTH 809**

# Celebrate Everyday Wins

DIACOMIT<sup>®</sup>  
(stiripentol) 250 mg, 500 mg  
capsules or for oral suspension

DIACOMIT helps patients achieve  
profound seizure reduction so  
families can celebrate everyday wins.

In two clinical studies,

DIACOMIT<sup>®</sup>  
reduced  
seizures by **84%**

with almost 39% of patients becoming  
seizure-free during the two-month  
study period.\* 1, 2, 3

\*Median seizure frequency

Actual patient  
and caregivers



Some of the most common adverse events  
were sleepiness, decreased appetite, agitation,  
impaired coordination, and decreased weight.

**Putt for a cause at Booth 311**  
Biocodex will make a donation to the  
Dravet Syndrome Foundation on your behalf.

## Important Safety Information

DIACOMIT (stiripentol) is indicated for the treatment of seizures associated with Dravet syndrome (DS) in patients taking clobazam who are 6 months of age and older and weighing 7 kg or more. There are no clinical data to support the use of DIACOMIT as monotherapy in Dravet syndrome. ♦ DIACOMIT can cause somnolence. Patients should be monitored for somnolence, and if it occurs, a dose reduction should be considered. Patients should be cautioned against engaging in hazardous activities requiring mental alertness, such as operating dangerous machinery or motor vehicles. ♦ DIACOMIT can cause decreases in appetite and weight. The growth of pediatric patients should be carefully monitored. ♦ DIACOMIT can cause a significant decline in neutrophil and platelet count. Hematologic testing should be obtained prior to starting treatment and then every 6 months. ♦ DIACOMIT should generally be withdrawn gradually to minimize the risk of increased seizure frequency and status epilepticus. ♦ DIACOMIT for oral suspension contains phenylalanine which can be harmful to patients with phenylketonuria. ♦ DIACOMIT can increase the risk of suicidal thoughts or behavior in patients. Patients should be monitored for emergence or worsening of depression, suicidal thoughts or behavior, and/or any unusual changes in mood or behavior. ♦ The most common adverse reactions associated with DIACOMIT in clinical trials were somnolence (67%), decreased appetite (45%), agitation (27%), ataxia (27%), weight decreased (27%), hypotonia (24%), nausea (15%), tremor (15%), dysarthria (12%), and insomnia (12%). Please see the full prescribing information at DIACOMIT.com.

## References

1. DIACOMIT<sup>®</sup> (prescribing information). Beauvais, France: Biocodex, Inc.; July 2022.
2. U.S. Food and Drug Administration. CDER Clinical Review. August 2018. [https://www.accessdata.fda.gov/drugsatfda\\_docs/nda/2018/206709Orig1s000,207223Orig1s000MedR.pdf](https://www.accessdata.fda.gov/drugsatfda_docs/nda/2018/206709Orig1s000,207223Orig1s000MedR.pdf). Accessed May 12, 2020.
3. Chiron C, Marchand MC, Tran A, et al; for the STICLO study group. Stiripentol in severe myoclonic epilepsy in infancy: a randomised placebo-controlled syndrome-dedicated trial. *Lancet*. 2000;356(9242):1638-1642.

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