



## **EPILEPSY STUDY CONSORTIUM MINI-GRANT PROGRAM**

### **LAST UPDATED JUNE 14, 2024 PROGRAM DESCRIPTION**

The Epilepsy Study Consortium is sponsoring a mini-grant of up to \$22,000 for epilepsy fellows to undertake a mentored research project on anti-epileptic drug therapy during their fellowship training and to attend the AES Annual Meeting. The award does not require past experience with research or a specific percent protected time for research but instead focuses on the mentorship and training experience for the fellow. Applicants may request funding periods of six months to one year.

The Epilepsy Study Consortium mini-grant is open to epilepsy fellows seeking to undertake a mentored research project on anti-epileptic drug therapy during their fellowship training. The project budget can be up to a total of \$22,000, with up to \$20,000 for direct research costs and up to \$2,000 for travel to the AES Annual Meeting. In addition, the ESC will work directly with the awardee to provide funding for the awardee to attend either the Antiepileptic Drug and Device Trials Symposium (AEDD) or the Epilepsy Foundation Pipeline meeting depending on the award year. The award does not require past experience with research or a specific percent protected time for research but instead focuses on the mentorship and training experience for the fellow. Applicants may request funding periods of six months to one year.

Research must focus on anti-epileptic drug therapy, either with clinical, translational, or basic science methods. Funds may be used to support a limited research project or for the collection of preliminary data leading to a larger research effort. Examples of appropriate projects include, but are not limited to, prospective or retrospective studies on treatment outcomes or adverse events in specific populations, or studies enabling randomized controlled trials (such as evaluations of new therapeutic trial methodology).

### **APPLICATION DEADLINES AND AWARD DATES**

- September 2024: Application submission opens through ProposalCentral
- January 16, 2025: Full proposals due
- By May 31, 2025: Awardees notified
- July 1, 2025: Earliest award start date. May be delayed up to 6 months (January 1, 2026).

### **APPLICATION POLICIES**

1. An individual may only serve as the primary mentor for one application submitted in a given year for a mentored award administered by the AES, including Predoctoral Research Fellowship, Postdoctoral Research Fellowship, Research & Training Fellowship for Clinicians, and the ESC mini-grant. Similarly, an individual may not apply for a Junior Investigator Research Award and also be listed as the primary mentor on a proposal for a mentored award.
2. More than one application may be submitted from a single institution, but final funding decisions will take into account a preference to limit multiple awards to one institution.

3. Applicants may request funding periods of six months to one year, and a start date between July 1, 2025, and January 1, 2026.

## **ELIGIBILITY REQUIREMENTS**

*Applicants must:*

1. Hold an MD, DO, PhD, ScD, PharmD, RN, or equivalent degree.
2. Be either accepted into an epilepsy fellowship program or be enrolled in the first year of a 2-year fellowship program.
3. Be in a fellowship program at an appropriate institution before the start date. (Applicants with appointments at the level of Instructor, Adjunct Professor, Research Assistant, or Assistant or Associate Professor are not eligible, nor are graduate or medical students, medical residents, permanent government employees, or employees of private industry.)
4. Have a defined research plan that is relevant to antiepileptic drug therapy, with access to institutional resources to conduct the proposed project.
5. Have a qualified mentor(s) with expertise to supervise and provide guidance on epilepsy-related research.
6. Have not previously been awarded an AES Research and Training Fellowship for Clinicians award.

*In addition:*

7. Physician applicants whose research will involve patient care or direct involvement with patients must have completed all residency training and be licensed to practice medicine at their institution.
8. U.S. citizenship is not required. Preference will be given to applications for research to be conducted at U.S. institutions. Depending on available funds, applications may be considered for investigators outside the U.S. who otherwise meet the eligibility criteria.
9. Applications are encouraged from women, members of minority groups, and people with disabilities.

## **EVALUATION CRITERIA**

Projects will be evaluated based on:

- The scientific merit of the research
- The clarity of the proposal
- The applicant's qualifications and potential to benefit from the award. Past research experience is not required.
- The feasibility of completing the research project with the proposed timeline and resources
- The availability and demonstrated commitment of a qualified mentor to advising on the proposed project

## **EXAMPLES OF PAST AWARDS**

### **2024:**

Elizabeth Harrison, MD

Anti-Seizure Medications and Contraceptive Failure in People with Epilepsy

UPMC Children's Hospital of Pittsburgh

Wasan Abd Wahab, MD, FRCPC

Cenobamate Efficacy in Patients with RNS: Biomarkers and Potential Synergy

Yale University

### **2023:**

Saumel Ahmadi, MD, PhD

Patient specific iPSC-neurons for personalized anti-seizure drug discovery  
Washington University in St.Louis

**2022:**

Wesley Kerr, MD, PhD  
Response-adaptive time-to-event designs in clinical trials for epilepsy  
University of Michigan

Laura Kirkpatrick, MD  
Lamotrigine and estrogen-containing contraception in people with epilepsy  
University of Pittsburgh

## **AWARD POLICIES**

### **Epilepsy Study Consortium Support**

This grant will be funded at up to \$22,000 by the Epilepsy Study Consortium and administered by the American Epilepsy Society. The funding period may be six months to one year, and funds can be used for partial salary or support staff for the project or for direct research costs such as neuroimaging, subject reimbursement, studies or reagents. The funds cannot be used for travel, meeting registration, personal computers, salary support for the mentor, or indirect costs, with the exception of \$2,000 that is earmarked to attend the annual American Epilepsy Society meeting. The American Epilepsy Society will also contribute one year of complimentary AES membership and complimentary registration to the AES Annual Meeting. The Epilepsy Study Consortium will work directly with the awardee to provide support to attend the AEDD or Epilepsy Foundation pipeline meeting.

Payments will be made to the grantee institution. An initial \$12,000 payment will be made at the beginning of the funding period. The remaining \$10,000 will be paid half-way through the proposed funding period. Unexpended funds must be returned to AES. Requests for up to 12 months no-cost extensions may be considered and must be submitted in writing at least 30 days prior to the end of the project period.

Awardees may not hold other overlapping grants/awards for the same research. Accordingly, full disclosure of all available and pending funds for research support must be made in the grant application. If funds from other sources become available during the review or tenure of the Epilepsy Study Consortium Mini-Grant, the applicant/recipient must inform AES in writing so that a decision can be made about continuation of the award.

### **Use of Human Subjects/Tissues in Research**

When human subjects or tissues are to be used in a research project, it is the responsibility of the grantee to ensure that the project receives approval from his/her Institutional Review Board. A copy of that Board's current approval notice and a copy of the patient informed consent form should be submitted with the application if they are available. If not submitted with an application selected for an award, these documents must be submitted at least two weeks before the award start-date.

### **Use of Animals in Research**

When animals and/or animal tissues will be used, it is the responsibility of the grantee to ensure that the project receives approval from the Institutional Animal Care and Use Committee. If available, a copy of these documents

should be submitted with the application. If not submitted with an application selected for an award, these documents must be submitted at least two weeks before the award start-date.

*All entities that receive funding from the American Epilepsy Society must adhere to the following principles:*

1. Animals shall be used in biomedical research only when no other means of obtaining scientifically sound, valid, and useful results are available.
2. The minimum number of appropriate animals required to obtain and validate results shall be used.
3. The acquisition, care, and use of animals must be in accordance with all applicable federal, state and local laws and regulations.
4. Certifications must be received from research facilities prior to being approved for a research fellowship that the facility(ies), its researchers, and employees adhere to the Animal Welfare Act and the National Research Council *Guide for the Care and Use of Laboratory Animals*; and any appropriate U.S. Department of Agriculture or National Institutes of Health regulations and standards must be followed.
5. In cases requiring the death of an animal, only the most appropriate and humane form of euthanasia shall be used consistent with the purpose of the research.

## APPLICATION INSTRUCTIONS

### ***Full proposals due by January 16, 2025, by 5:00 PM Eastern time***

Proposals must be submitted through ProposalCentral (<https://ProposalCentral.altum.com/>).

- Applicants who do not yet have an account with ProposalCentral will need to register as a new user and provide the requested professional profile information before proceeding.
- Once logged in as a user, go to the *Grant Opportunities* tab, and filter the list to display American Epilepsy Society Awards.
- Locate the line for *Epilepsy Study Consortium* and click on *Apply Now* to begin an application.

### **Complete applications must be submitted through ProposalCentral.**

No applications, nor any parts of or updates to the application, will be accepted if submitted after the deadline or if sent directly to AES offices by electronic or U.S. mail.

Required components of the application include the following sections to be completed as online forms or submitted as individual proposal attachments in PDF format. ***Please read these full instructions carefully and plan in advance to ensure all components will be completed before the application deadline.*** Additional instructions will be available on screen in ProposalCentral and within downloadable templates for proposal attachments.

#### **1. Title Page:**

- a. **Enter the title of your proposal** (max 75 characters)
- b. **Enter the start and end date requested for your project.** The award term may be between six months and one year. The start date should fall between July 1, 2025 and January 1, 2026; the end date should fall between December 31, 2025, and June 30, 2026.
- c. **Research Type (basic, translational, or clinical).** Definitions for the categories are available at the end of these instructions. Multiple categories are often relevant to an individual project. Please select one category as the primary type of research that best fits your proposal and then indicate in the boxes below what percentage of your research falls within each category.

- d. **Type of epilepsy or seizure under investigation** While multiple categories may be relevant to an individual project, please select a maximum of two choices (one primary and one secondary) that best fit your proposal.
      - e. **Research classification.** Definitions for the research classifications are available at the end of these instructions. While multiple categories may be relevant to an individual project, please select up to two choices (one primary and one secondary) that best fit your proposal.
2. **Download Templates and Instructions:** This guidelines document and all proposal attachment templates can be downloaded [here](#).
3. **Enable Other Users to Access This Proposal:** This screen allows you to give other users access to your grant application, if necessary, such as your mentor or financial officers at your institution. Please inquire internally at your institution to understand who, if anyone, should be able to access your proposal.
4. **Applicant/PI:** This information is pre-loaded from the applicant's PROFESSIONAL PROFILE. Double-check that the information is complete and correct. If it is not, click Edit Professional Profile to update.
  - a. ORCID ID (optional): Applicants are encouraged to connect your application to your ORCID ID (available through the Personal Data for Applications within your Professional Profile). The ORCID ID is a persistent digital identifier that distinguishes you from other researchers, helping to ensure that your professional activities over time are linked to your identity.
5. **Institution and Contacts:**
  - a. Institution information is pre-loaded from the applicant's INSTITUTIONAL PROFILE. Double-check that the information is complete and correct. If it is not, click Edit Institutional Profile to update. The institution listed should be the institution where your project will be completed.
  - b. Enter the requested contacts in the table provided. Select the appropriate Signing Official and financial officer from the drop-down list or enter the email address of a new official and click on ADD. Complete the information form, and click on the SAVE or CLOSE WINDOW link, and the added official will be listed as the assigned signing official or financial/fiscal officer. Enter the correct contact and address to which award payments should be sent if this proposal is selected for funding.
    - i. Note: The name you enter as the Signing Official will be asked to provide the e-signature for your submission in Step 15 (see below).
6. **Key Personnel:** Indicate key personnel other than the applicant/PI who will contribute significantly to the execution of the proposal, including your mentor and/or co-mentor. This may also include collaborators, consultants, postdocs, students, and others.
7. **Abstracts and Keywords:**
  - a. Describe the proposed research project for both general (lay) and scientific audiences (1500 characters maximum for each abstract).
  - b. Please select keywords that describe the specific focus of your research. At least two keywords are required, and up to five are allowed. Please select keywords carefully, as they will aid in matching your application to appropriate reviewers.
  - c. Please select the Benchmarks for Epilepsy Research that best fits your proposed project. If your proposal is selected for funding, your award will be publicly shown in the iCARE database with such categorizations. You must select one, and can select up to two. More information on the Benchmarks is available [here](#).

8. **Budget Period Detail:** Use this section to provide a detailed budget by listing costs under the headings provided. The total budget can be up to \$22,000, with up to \$20,000 for direct research costs and up to \$2,000 for travel to the AES Annual Meeting.
9. **Budget Summary:** This page summarizes the information provided in the Budget Detail and requests a narrative justification for the costs provided in the budget detail.
10. **Other Support:** Please provide all other past (last 3 years), current, and pending support for the applicant's research. Other Support includes: all financial resources available in direct support of an individual's research and/or research training, including but not limited to research grants, research training fellowship awards, cooperative agreements, contracts, and/or institutional awards. Recognition awards, prizes, or gifts do not need to be included.
11. **Organization Assurances:** Use this section to indicate use of human subjects, human tissue, or vertebrate animals, and to confirm institutional assurances. All assurances should be provided at the time of the application if available, and documentation must be provided before funding can begin for awarded proposals. See Award Policies above for more information.
12. **Proposal Attachments:** Attachments must be uploaded as PDFs. Where noted, templates will be available for download on ProposalCentral. Select the appropriate attachment type and upload as instructed onscreen.
  - a. **Applicant and mentor biosketches:** Provide using NIH-style format appropriate to applicant career stage. If a co-mentor is proposed, provide a biosketch for the co-mentor.
  - b. **Research Plan:** Please use the template provided and include the following elements: specific aims, background and significance, previous work directly related to this research (if available), research plan and methods. Research must include a focus on antiepileptic drug therapy. Use at least 11 pt font and at least ½ inch margins. (maximum 6 pages, not including references)
  - c. **Applicant Statement and Training Goals:** Please use the template provided and include the following elements. Use at least 11 pt font and at least ½ inch margins. (maximum 1 page)
    - i. Describe your long-term career goals and your reason for choosing epilepsy as an area of specialized clinical and/or research training.
    - ii. Describe the clinical and research training you will receive during the grant term and how this training will contribute to your career goals.
    - iii. In the table provided, indicate the percentage of time you will spend in the activities identified. The total should not exceed 100%. No specific percentage of time is required for this award.
  - d. **Letter of support from the project mentor:** The mentor letter should describe the research training and mentorship to be provided to the applicant, including the skills and techniques the applicant will learn as well as any classes, seminars, professional development activities, and opportunities to participate in conferences and other interactions with the research community. In addition, the letter should describe the applicant's qualifications for this mini-grant and how this support and the mentor's expertise and mentorship experience will contribute to his/her future success. If one or more co-mentors are proposed, the letter from the primary mentor should clearly describe their roles in the applicant's training. **IMPORTANT: It is the applicant's responsibility to provide these instructions to the mentor(s) for the proposed fellowship.**
  - e. **Other proposal attachments (optional):** Examples of additional optional attachments (if applicable) include letters of support from collaborators or consultants, or documentation related to approval for the use of vertebrate animals or human subjects. (See Policies and Procedures; IRB/IACUC documentation will be required prior to funding if selected for an award).

- 13. Demographic Information (optional):** All demographic information is voluntary. Applicant information is pre-loaded from the applicant's PROFESSIONAL PROFILE. AES is committed to supporting a strong, diverse, and inclusive research workforce. If you choose to provide information such as gender, race and ethnicity, or disability status, it will be used to help AES understand our granting programs through analysis of de-identified aggregated data. Such demographic information will not be available to the reviewers of your research proposal.
- 14. Validate:** Click the VALIDATE button to check for any missing REQUIRED information or files. All missing required information will be listed on the screen. Please correct any missing information before submitting your application.
- 15. Signature Pages:** The Applicant/PI and the Signing Official must e-sign the application prior to submission in order for the application to pass validation. All signatories must log in to ProposalCentral to sign the application. Signatures needed are:
- a. Applicant/PI: Please type your full name and hit sign. This will trigger an email to your designated Signing Official asking them to log in and sign.
  - b. Signing Official: The Signing Official you listed in Section 5 (Institution and Contacts) will be listed here. After you complete your e-signature, the Signing Official will receive an email asking them to log in and complete their e-signature. They need a ProposalCentral account in order to complete their signature, and can access the application through the "Proposals" tab. The Signing Official's signature is required for you to submit your application.
- If needed, you can go back to Section 5 and edit the signing official.
- 16. Submit:** You will be unable to submit if you have not provided all the required information. Any missing information will be listed on the screen. If your submission is successful, you will receive a confirmation message on the screen and a confirmation email will be sent to the applicant.

## CATEGORY LISTS & DEFINITIONS, FOR FIELDS COMPLETED ON THE TITLE PAGE

Research Type	Definitions
Basic	Basic research is the systematic study of the fundamental aspects of phenomena and of observable facts without specific development of processes, products or clinical applications. Projects typically include studies of the mechanisms of normal or disease related processes at the molecular, cellular, systems or organ level.
Translational	Translational research is defined here as research to actively develop and/or refine specific processes, products, clinical applications, and implementation practices that can ultimately be used by patients or healthcare providers.
Clinical	Patient-oriented research, possibly with basic or translational goals, that is conducted with human subjects or on material of human origin (e.g. tissues, specimens and cognitive phenomena) for which an investigator directly interacts with human subjects. Excluded from this definition are in vitro studies that utilize human tissues but cannot be linked to a living individual. Patient-oriented research can encompass physical or behavioral aspects of epilepsy, therapeutic interventions, applications of new technologies, clinical trials, epidemiologic studies, outcomes research, public health, and health services research.

**Epilepsy or Seizure Type.** This listing has been revised from previous years in response to the [2017 Classification of Seizures Types](#) by ILAE.

- Seizures – Focal or localization-related
- Seizures – Generalized
- Seizures – combined generalized & focal
- Seizures – unknown type
- Seizures – catamenial
- Seizures – early life
- Seizures – febrile
- Seizures – neonatal
- Seizures – Status Epilepticus
- Seizures – other
- Seizures in childhood
- Seizures in pregnant women
- Seizures in geriatric populations
- Seizures in other disorders (e.g. Alzheimer’s, Autism, alcohol abuse, addiction, renal failure, hepatic encephalopathy, Fragile X)
- Epilepsy – Autosomal Dominant Epilepsy w Auditory Features (ADEAF)
- Epilepsy – Autosomal-Dominant Nocturnal Frontal Lobe Epilepsy (ADNFLE)
- Epilepsy – Childhood Absence Epilepsy (CAE)
- Epilepsy – Childhood Epilepsy with Centrottemporal Spikes (formerly BECTS)
- Epilepsy – Dravet Syndrome
- Epilepsy – Early Myoclonic Encephalopathy (EME)
- Epilepsy – Epileptic Encephalopathies
- Epilepsy – Genetic Epilepsy with Febrile Seizures plus (GEFS+)
- Epilepsy – Hemiconvulsion–Hemiplegia–Epilepsy
- Epilepsy – Infantile Spasms (IS)
- Epilepsy – Juvenile Absence Epilepsy (JAE)
- Epilepsy – Juvenile Myoclonic Epilepsy (JME)
- Epilepsy – KCNQ2 Encephalopathy
- Epilepsy – Landau-Kleffner syndrome (LKS)
- Epilepsy – Lennox-Gastaut Syndrome (LGS)
- Epilepsy – Ohtahara Syndrome
- Epilepsy – Polyhydramnios, Megalencephaly and Symptomatic Epilepsy Structural Syndrome (PMSE)
- Epilepsy – Progressive Myoclonus Epilepsies (PME)
- Epilepsy – Reflex Epilepsies
- Epilepsy – Self-limited neonatal seizures or familial neonatal epilepsy (formerly BFNE)
- Epilepsy – Temporal Lobe Epilepsy (TLE)



- Epilepsy – Unknown or other
- Epilepsy – West Syndrome
- Etiology – celiac disease, epilepsy, and cerebral calcification syndrome
- Etiology – Encephalitis
- Etiology – genetic
- Etiology –Alpers Syndrome
- Etiology –Angelman Syndrome
- Etiology –Lafora disease
- Etiology –other
- Etiology –PCDH19 Epilepsy
- Etiology –SCN8A
- Etiology – immune
- Etiology –anti- AMPA receptor antibody
- Etiology –anti- LGI antibody
- Etiology –antibody-mediated
- Etiology –anti-GABA-B receptor antibody
- Etiology –anti-GAD65 antibody
- Etiology –anti-NMDA receptor encephalitis
- Etiology –Rasmussen encephalitis
- Etiology –voltage-gated potassium channel antibody
- Etiology – infectious
- Etiology –Bacterial meningitis / meningoencephalitis
- Etiology –Cerebral malaria
- Etiology –cerebral toxoplasmosis
- Etiology –CMV
- Etiology –HIV
- Etiology –Neurocysticercosis
- Etiology –Nodding Syndrome
- Etiology –other/unknown
- Etiology –Tuberculosis
- Etiology – metabolic
- Etiology –Biotinidase and holocarboxylase synthase deficiency
- Etiology –central folate deficiency
- Etiology –creatine disorders
- Etiology – folinic acid responsive seizures
- Etiology –glucose transporter 1 (GLUT1) deficiency
- Etiology –mitochondrial disorders
- Etiology –peroxisomal disorders
- Etiology –pyridoxine dependent epilepsy/PNPO deficiency
- Etiology –Succinic Semialdehyde Dehydrogenase Deficiency
- Etiology – steroid responsive encephalopathy with autoimmune thyroiditis (Hashimoto disease)
- Etiology – structural
- Etiology –Hypothalamic Hamartoma with Gelastic Seizures
- Etiology –Malformations of Cortical Development
- Etiology –other/unknown
- Etiology –Sturge-Weber Syndrome
- Etiology –Tuberous Sclerosis Syndrome
- Etiology – Post-traumatic epilepsy (PTE)
- Etiology – hypoxia-ischemia
- Comorbidity or consequence
- Comorbidity or consequence – behavioral, psychosocial, or cognitive co-occurring condition
- Comorbidity or consequence – SUDEP
- Epilepsy imitator – headache
- Epilepsy imitator – movement disorders
- Epilepsy imitator – Non-Epileptic Events
- Epilepsy imitator – paroxysmal non-epileptic event

<b>Research Classification</b>	<b>Definitions</b>
Etiology	Research included in this category aims to identify the causes or origins of epilepsy and its co-occurring conditions- genetic, infectious, metabolic, environmental, or other factors, and the interactions between these factors
Mechanism of Disease	Research included in this category looks at the biology of how epilepsy/seizures starts and progresses as well as normal biology relevant to these processes. Research may also look at the biology of co-occurring conditions as they relate to epilepsy patients, such as depression, anxiety, autism, Alzheimer's, and traumatic brain injury.
Prevention	Research included in this category looks at identifying interventions which reduce the risk of developing epilepsy or its co-occurring conditions by reducing exposure to risk factors and/or increasing protective factors. Interventions may target lifestyle or behavioral changes and may involve drugs, devices, or vaccines.
Detection/Diagnosis/Prognosis	Research included in this category focuses on identifying and testing biomarkers, technology methods or predictive models that are helpful in detecting and/or diagnosing as well as predicting the outcome or chance of recurrence of seizures and/or co-occurring conditions
Treatment Development or Evaluation	Research included in this category focuses on developing and testing treatments, such as novel therapeutics, devices or other interventions to target seizures and co-occurring conditions.
Outcomes	Research included in this category includes a broad range of areas: surveillance and epidemiology; ethics, education and communication approaches for health care professionals, patients and families, and community members; patient care and health care services research; self-management interventions, effectiveness research and phase 4 trials
Model Systems	Research included in this category looks at the development of new animal models, cell cultures and computer simulations and their application to other studies across the spectrum of epilepsy research
New Technology and Methodology	Research included in this category is primarily focused on developing new technologies and methodologies for use in epilepsy research, clinical care, or self-management.