**2017 CURE - *Sleep and Epilepsy Award***
***Request for Applications (RFA)***
***with LOI & Full Proposal Guidelines***

**About CURE**

CURE's mission is to cure epilepsy, transforming and saving millions of lives. We identify and fund cutting-edge research, challenging scientists worldwide to collaborate and innovate in pursuit of this goal. Our commitment is unrelenting.

**About the CURE - Sleep and Epilepsy Award**

CURE's *Sleep and Epilepsy Award* seeks to accelerate promising research into the molecular-, cellular-, and systems-level mechanisms that underlie the relationships between sleep and epilepsy. The overall goal of the *Sleep and Epilepsy Award* is to advance our understanding of sleep and epilepsy in a way that will ultimately translate to significant help for patients. This award mechanism requires a multidisciplinary, collaborative approach. A researcher (or group of researchers) who understands the epilepsies and the intricacies of treating this group of neurological disorders must collaborate with an investigator, or group of investigators, outside of epilepsy research (e.g., from any sleep-related discipline including, but not limited to, physiology, genetics, chemistry, anesthesiology, and physics). *This award has been made possible by the generous support of the BAND Foundation.*

**Background**

The bidirectional relationship between epilepsy and sleep has been known for centuries, and sleep-related epilepsy issues continue to be a major problem for people with epilepsy. There are many ways in which sleep affects seizures and seizures affect sleep, including:

- One in four with epilepsy experience seizures only at night.
- Distinct electro-clinical epilepsy syndromes are associated with seizures that occur only at specific times in the sleep/wake cycle (e.g. upon awaking, falling asleep, during periods of daytime drowsiness, etc.).
- Sleep quality and the restorative functions of sleep are diminished by nighttime seizures and by the ongoing use of anti-seizure medications.
- Numerous prevalent sleep-associated disorders, often self-treated, are a major issue for people with epilepsy.
- There is a strong relationship between sleep and Sudden Unexpected Death in Epilepsy (SUDEP), with most deaths occurring during sleep. Increased risk of SUDEP is seen in those who experience two or more nocturnal generalized tonic-clonic seizures per year.

Despite extensive clinical observations and experimental investigations, the molecular-, cellular- and systems-level mechanisms that underlie the interplay between sleep and epilepsy are poorly understood. Further research is needed to advance our understanding of sleep and epilepsy.

While our understanding of the biological underpinnings of sleep has rapidly advanced in recent decades, a significant gap exists between the vast knowledge of sleep neurobiology and its application in the care and treatment of people with epilepsy. To address this, CURE has added sleep as a major Priority Area to its research portfolio and has created the CURE *Sleep and Epilepsy Award*.

**This award has three main goals:**

- Accelerate translational, clinical, and clinically-informed basic research that will facilitate elevated understanding of the cellular-, molecular-, and systems-level mechanisms that underlie the relationships between sleep and epilepsy. This research must have the potential to one day result in interventions for patients. **Priority for this award cycle will be given to research focused on SUDEP but all types of research are welcome.**

- Advance research into the development of relevant animal models to enable real opportunities for translational research.

- Form a multidisciplinary team of epilepsy-sleep researchers that will meet yearly to discuss their CURE-funded work (those funded will be required to attend a CURE-hosted annual meeting and share results with the team).

## 2017 FUNDING CYCLE

*Note for Applicants: This cycle is on an accelerated timeline compared to other CURE grant cycles.*

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| **RFA Release Date** | October 27, 2016 |
| **Letter of Intent Deadline** | December 29, 2016 – 9pm ET |
| **Full Application Invitations** | by February 3, 2017 |
| **Full Application Deadline** | March 1, 2017 – 9pm ET |
| **Anticipated Award Announcement** | April 2017 |
| **Anticipated Project Start Date** | May 2017 |

**Funds Available**

Requests may be made for up to a total of $220,000 paid over two (2) years. Indirect costs are not supported.

CURE plans to fund two awards this grant cycle. The *Sleep and Epilepsy Award* will then become a part of CURE's annual grants program, which plans to release RFAs in April and November of 2017.

**Eligibility**

The CURE *Sleep and Epilepsy Award* is available to both established and early-career investigators*. Researchers who serve on CURE's Scientific Advisory Council (SAC) are ineligible to apply for or sponsor a grant for the duration of their term on the Council. International applicants are welcome. All materials must be submitted in English.

**Generally, early-career investigators are university faculty at assistant professor-level (or hold an equivalent position in a non-university research organization). Established investigators are university faculty at associate professor-level or above. Post-doctoral fellows may not apply for this award.*

**Review Process**

There are two (2) stages to the CURE application review process: 1) **Letter of Intent** and 2) **Full Proposal**. All grants will be peer reviewed by an external team of scientific and lay reviewers. Learn more about CURE's grant review process at the CURE website.

**Letter of Intent Instructions**

All applicants must submit a Letter of Intent (LOI) through our online application portal proposalCENTRAL. To begin an application, applicants will need to create a professional profile in proposalCENTRAL, if one does not already exist. Please fill in all required fields in the online application form (instructions below).

**Instructions for each section of the online LOI application:**

1) *Title Page:* Enter proposal title (maximum 150 characters, including spaces).
2) *Download Instructions:* Download additional copies of these guidelines, if needed.
3) *Enable Other Users to Access Proposal:* Use this optional section to grant access to collaborators or Co-Investigators.
4) *Applicant/PI:* This section should auto-populate from the applicant's professional profile. Double-check that the information is complete and accurate. If it is not, click "Edit Professional Profile" to update the information. Indicate whether you are an early-career or established investigator.
5) *Institution and Contacts:* Information should auto-populate from applicant profile.
6) *Collaborators:* Enter information for any Co-Investigators or collaborators, if applicable.
7) *Keywords:* Add at least three (3) keywords that best describe the specific focus of your research proposal.
8) *Current and Pending Support*: List all current and pending support for you and any Co-Investigators.
9) *Letter of Intent:* Once the LOI is finalized, per the instructions below, attach by uploading the PDF into the "Attachments" section of proposalCENTRAL. Upload a current biosketch for each PI.

10) *Validate:* The system will check for required components, and items that have not been completed. Applicants are not able to submit until all required fields are complete.
11) *Submit the Application:* Make sure to click *"*Submit*"* after your application has been validated!

**LOI Narrative Instructions:** In your uploaded Letter of Intent, please provide the following:

1) **Lay Summary:** Your LOI will be reviewed by members of CURE's Lay Review Council (LRC) and by scientific peer reviewers. Using non-scientific language (1-page maximum), please provide the following **in bulleted format** in the Lay Summary:
    a) *Project Hypothesis and Goals:* Bulleted list of the hypothesis and goal(s) of the project.
    b) *Aims:* Bulleted list of how project goals will be tested.
    c) *Deliverables:* Bulleted list of tangible deliverables to result from the project if successful.
    d) *Impact:* Briefly explain how the project, if the goals are achieved, will help advance the field of sleep and epilepsy, and ultimately, help people living with epilepsy.

2) **Scientific Summary:** Clearly and succinctly outline the hypothesis and specific aims, and provide a brief description of how the proposed research plan aligns with CURE's mission and with the program goals stated above. (1-page maximum).

    LOIs are evaluated by scientific reviewers and the CURE Lay Review Council for the following criteria:

    - Research strategy
    - Feasibility
    - Scientific quality
    - Relevance to CURE's mission
    - Relevance to CURE's Sleep and Epilepsy award
    - Potential to help people with epilepsy

    *Note: All genetic data generated with CURE funding is required to be deposited in CURE's Epilepsy Genetics Initiative (EGI) database*.

3) **Formatting Requirements:**

    a) *Font*: Use *Arial*, *Helvetica*, *Palatino Linotype* or *Georgia* typeface, black font color, and font size of 11 points or larger.
    b) *Figures, Tables, and Graphs*: You may use a smaller type size but it must be in a black font color, easily legible, and follow the font typeface requirements. Color can be used in figures but all text must be in black color and sans serif font.

c) *Spacing:* Single-spaced between lines of text, no more than five (5) lines of type per a vertical inch.
d) *Margins*: Minimum of 0.5-inch top, bottom, right and 1-inch left.

## Full Proposal Instructions

Applicants will be notified if they are invited to submit a full proposal by the above listed date. Invited full proposals **must** be submitted through proposalCENTRAL (https://proposalcentral.altum.com). Applicants must complete all required fields in the online application form. To access your application, log in to proposalCENTRAL and go to the "Manage Proposals" tab. Click "Edit" next to your approved LOI to access your full proposal application.

**Instructions for each section of the online Full Proposal application:**

1) *Title Page:* Enter proposal title (maximum 150 characters, including spaces).

2) *Download Templates & Instructions:* Access a copy of these guidelines and download a biosketch template if you do not already have one completed.

3) *Enable Other Users to Access this Proposal:* Use this optional section to grant access to Co-Investigators or collaborators so they may review or enter information into the application.

4) *Applicant/PI:* This section should auto-populate from your professional profile. Double-check that the information is complete and correct. If it is not, click "Edit Professional Profile" to update the information. Indicate whether you are an early-career or established investigator.

5) *Institution & Contacts:* Information should auto-populate from your profile.

6) *Collaborators/Co-Investigators:* Enter contact information for Co-PIs and/or collaborators.

7) *Letters of Reference/Recommendations:* Submit up to 3 letters of support/recommendation from mentors, department heads, or essential project collaborators.

   **Note**: Letters of support are only required if the submitting PI is an early career investigator. Letters of support from collaborators can be requested here or uploaded in the attachments section.

8) *Abstract:* Answer the questions in each box per the instructions below:

   a. **Lay Summary:** Your lay summary will be reviewed by CURE's Lay Review Council. Please take special care to describe the proposed work and its potential impact on the field of epilepsy in language appropriate for a nonscientific audience.

      Include the following:

      i. *Project Hypothesis and Goals:* Bulleted list of the hypothesis and goal(s) of the project.

      ii. *Aims:* Bulleted list of how goal(s) will be tested and measured.

      iii. *Deliverables:* Bulleted list of tangible deliverables to result from this project, if successful.

      iv. *Impact:* Briefly explain how this project, if successful, will advance the field of sleep and epilepsy, and ultimately affect people living with epilepsy.

   b. **Scientific Summary:** Please provide a scientific abstract for your project.

9) *Budget Period Detail:* Enter Proposed Start and End Dates for each Budget Period: Suggested start date is 5/1/17. Provided a detailed budget. The maximum budget for this program is $220,000 USD over 2 years. Please note that indirect costs and institutional overhead are not provided. Additionally, while stipend support can be provided for graduate students, tuition is not an allowable expense. All expenses must be converted to U.S. dollars (USD).

   A travel cap of $1,500 USD for international applicants and $1,000 USD for US applicants per year, which can be budgeted for a maximum of two (2) investigators (the PI and Co-PI). CURE encourages all grantees to attend the annual American Epilepsy Society (AES) meeting. Additional funds outside of the award will not be given to attend this event.

10) *Budget Summary and Justification:* Review the budget summary. Provide budget justification which clearly states how the funds will be used and why these expenditures are critical to the success of the proposed research project.

11) *Current and Pending Support:* Enter current and pending support for all PIs on the proposal. Please indicate if there is any overlap with the proposed work.

12) *Organization Assurances:* Answer the questions regarding use of human subjects, animals, recombinant DNA, and the possession of a Schedule 1 license.

13) *Proposal Narrative and Other Attachments:* Upload the following documents –

    a. Proposal Narrative, per the instructions below.

    b. PI Biosketch: Upload a biosketch for the submitting PI on the application (use NIH format).

    c. Facilities/Institutional Assurances (do not exceed ½ page): If an institution does not have an official assurance document, please provide, in writing, assurances from the department chairperson or practice colleagues confirming the applicant's time, facilities, and future position if research is funded. Include a description of the facilities available. Please submit facilities/institutional assurances for each PI.

    d. Co-Investigator Biosketch: Upload biosketch for each Co-Investigator, if applicable.

    e. Collaborator Letters of Support: Upload letters from collaborators indicating their support of the proposed work, if applicable.

    f. Signed signature pages: Upload signed signature pages which are generated in Step 15 of the application.

14) *Validate:* The system will check for required components that have not been completed. You will not be able to submit until all required components are completed.

15) *Signature Pages:* Click "print signature page" to obtain a PDF of the document that needs to be signed by the submitting PI and an institutional representative. After signatures have been collected, scan and upload to Section 13.

16) *Submit:* Please **make sure to click submit** once your application has been validated by the system.

**Full Proposal Narrative Instructions (10-page limit*)**

Main body of proposal (not to exceed 10 pages) should contain the following sections –

- **Specific Aims**: Clearly state the aims of the proposed research.

- **Background**: Present the ideas and reasoning behind the proposed research; include relevant literature citations. Describe previous experience most pertinent to this application.

- **Preliminary Data**: Provide preliminary data to support the rationale and feasibility of the study. Preliminary data can come from PI's published work, pilot data, or peer-reviewed literature.

- **Research Strategy**: Detail the experiments that will be done to address each specific aim, details of research design and methods, the expected outcomes, potential pitfalls, and how you will interpret and measure the results. Briefly describe how the collaboration adds value to the application.

- **Statement of Relevance** to this specific initiative and to CURE's mission: Include one paragraph detailing how the proposed research addresses CURE's Priority Area of advancing sleep and epilepsy research and ultimately transforming patient care.

  * The 10-page limit of the Proposal Narrative is inclusive of any figures, tables, or graphs. References: Please include all literature cited within the proposal (no page limit).

Full Applications will be evaluated for the following criteria**:**

- Research strategy
- Feasibility
- Scientific quality
- Relevance to CURE's mission
- Relevance to CURE's sleep and epilepsy award
- Potential help people with epilepsy.

*Note: All genetic data generated with CURE funding is required to be deposited in CURE's Epilepsy Genetics Initiative (EGI) database*.

**Formatting Requirements:**

- Font: Use an *Arial*, *Helvetica*, *Palatino Linotype* or *Georgia* typeface, a black font color, and a font size of 11 points or larger.

- Figures, Tables, and Graphs: You may use a smaller type size but it must be in a black font color, readily legible, and follow the font typeface requirement. Color can be used in figures but all text must be in black font.

- Spacing: Single-spaced between lines of text, no more than five lines of type within a vertical inch.

- Margins: Minimum of 0.5-inch top, bottom, right and 1-inch left.

**Inquiries:** Questions regarding this RFA are welcome and should be directed to Liz Higgins, Research Administrator, at Liz.Higgins@CUREepilepsy.org or 312-255-1801.