



2019 Strategic Research Award

ISSUE DATE:	January 29, 2019
LETTER OF INTENT DUE DATE:	March 4, 2019 by 11:59 pm CT
INVITATIONS TO SUBMIT FULL APPLICATION:	April 22, 2019
APPLICATION DUE DATE:	June 24, 2019 by 11:59 pm CT
AWARD SELECTION NOTIFICATION	By October 25, 2019
PERIOD OF PERFORMANCE:	Category I: 1-3 years Category II: 1-2 years
AMOUNT OF AWARD:	Category I: Up to \$250,000 total per award Category II: Up to \$100,000
LINK TO LETTER OF INTENT:	https://www.grantrequest.com/SID_5880?SA=SNA&FID=35026
CONTACT:	AASM Foundation 2510 N. Frontage Road Darien, IL 60561 Phone: 630-737-9700 Fax: 630-737-9790 E-mail: foundation@aasm.org

The goals of the Strategic Research Award program are to foster health services research and patient-oriented research in sleep medicine, to demonstrate improved patients' outcomes and demonstrate value.

This is a focused request for applications (RFA) in specific topic areas that will advance the field of sleep medicine. The topics for this RFA include: pediatric sleep-disordered breathing, opioid use and sleep-disordered breathing, use of telemedicine for patients with sleep-disordered breathing, circadian rhythms sleep-wake disorders, rapid eye movement behavior disorder and other parasomnias, the value of board-certified sleep medicine physicians and sleep medicine team members, collaborative care models across specialties, hypopnea scoring criteria, effects of workplace interventions on employee sleep health, artificial intelligence, and high-impact sleep research. Details for each of these topic areas are provided below. Only applications that fit into one or more of these topic areas will be considered.

The AASM Foundation will consider applications that address one of the following research domains:

- 1. Pediatric sleep-disordered breathing:** Diagnosis and treatment of sleep-disordered breathing in pediatric populations remains a significant challenge. Research topics in this domain include:
 - a. Evaluation of the validity of home sleep apnea testing (HSAT) in pediatric populations.
 - b. Evaluation of patient preferences and utility of HSAT in pediatric populations.
 - c. Identification of whether some pediatric populations are appropriate for HSAT, while others are not (*e.g., for what age group(s) is HSAT appropriate? What comorbid conditions limit the validity of HSAT in pediatric populations?*).
 - d. Continuous positive airway pressure (CPAP) titration in the adolescent age group (*e.g. use of autotitration versus in-lab testing*).

- 2. Opioid use and sleep-disordered breathing:** There is a need for understanding the effect of opioid use on sleep and evaluation of interventions for treating opioid-induced sleep-disordered breathing. Research topics in this domain include:
 - a. Short- and long-term effects of opioid use on sleep architecture, sleep-disordered breathing, and daytime sleepiness.
 - b. Patient-related and drug-related determinants and predictors of sleep-disordered breathing in patients using opioids.
 - c. Optimal management of opioid associated sleep-disordered breathing.

- 3. Telemedicine use for patients with sleep-disordered breathing:** There is a need to explore the role of telemedicine in diagnosis and treatment of sleep-disordered breathing. Research topics in this domain include:
 - a. Studies evaluating systems of care, especially models that include collaboration across specialties, incorporating telemedicine into the diagnosis and management of sleep disordered breathing.
 - b. Studies focused on how patient-centered outcomes differ between telemedicine and other methods of delivering care.
 - c. Telemedicine for treating and managing patients with sleep disorders who have challenges accessing care (*e.g., patients in rural areas*).

- 4. Circadian rhythms sleep-wake disorders (CRSWDs):** Several areas have been identified in which additional research would advance our understanding of the diagnosis and treatment of patients with CRSWDs and ultimately improve patient outcomes. In particular, “field studies” outside of the laboratory settings are needed. Research topics in this domain include:
 - a. Delineation of characteristics of light therapy that are most effective for the treatment of patients with CRSWDs, including duration, wavelength, frequency, and timing.
 - b. Efficacy of pharmacological therapy for the treatment of CRSWDs.
 - c. Efficacy of combined therapies for the treatment of CRSWDs (*e.g., light therapy + pharmacotherapy*).
 - d. Novel approaches to the treatment of CRSWDs.

Note: Investigators must use ICSD-3 diagnostic criteria for CRSWDs.

5. **Rapid eye movement (REM) behavior disorder and other parasomnias:** There is a need for validating methods for diagnosing and managing care for patients with REM behavior disorder and other parasomnias outside of a sleep laboratory setting. Research topic in this domain includes:
 - a. Validating home monitoring for REM behavior disorder and other parasomnias in diagnosis and management, including evaluation of treatment response.
 - b. Develop and validate patient-reported outcome measure for REM behavior disorder and other parasomnias.

6. **Value of sleep medicine teams and board-certified sleep medicine physicians:** Studies demonstrating the value of specialty care for sleep disorders are needed. Research topics in this domain include:
 - a. Patient preferences, treatment adherence, access to care, systems issues, delivery of services, provider-related topics, and patient outcomes as they relate to care from a board-certified sleep medicine physician and sleep medicine team.

7. **Collaborative care models across specialties:** The value of collaborative care models between sleep medicine providers (*e.g., board-certified sleep medicine physicians, nurse practitioners, physician assistants*) and specialists from other disciplines (*e.g., cardiology, bariatric surgery, primary care, mental health, intensive care*). Research topics in this domain include:
 - a. Screening, diagnosing, treating and/or managing patients with sleep disorders.

8. **Hypopnea scoring criteria:** In 2012 and 2018, the American Academy of Sleep Medicine recommended using a criterion of 3% or greater oxygen desaturation and/or arousals to identify hypopnea events however, this has not been universally adopted. Research topics in this domain include:
 - a. Evaluation of how patient outcomes are affected by using the $\geq 3\%$ oxygen desaturation and/or including arousals when scoring hypopneas, rather than adhering to a $\geq 4\%$ oxygen desaturation only.
 - b. Sex differences or other factors that would impact the utility of using different scoring criteria.

9. **Workplace interventions and employee sleep health:** Insufficient sleep in the workforce negatively impacts productivity and safety, and there is a need for evaluating how effective employer-initiated interventions in the workplace are in improving employee sleep health. Research topics in this domain include:
 - a. Effects of workplace interventions to promote sleep health for employees working various work schedules (*e.g., shift work – rotating, extended, prolonged hours, irregular work hours, non-shift work office, non-shift field work*).
 - b. Effect of workplace interventions to promote sleep health in various occupations where insufficient sleep poses occupational or public health risks (*e.g., law enforcement, security, emergency responders, manufacturing, commercial drivers*).

- c. Effect of various workplace interventions (*e.g., sleep hygiene education, self-management, relaxation, napping*) to promote sleep health and reduce the negative impact of insufficient sleep.

10. Artificial Intelligence (AI): AI, including machine learning, deep learning and natural language processing, is transforming the way data on patient health, healthcare services and historical health data is being understood and used. AI can be applied to various types of sleep health data, and studies utilizing or developing artificial intelligence in the field of sleep medicine are needed. Examples of research topics in this domain include using or developing AI for:

- a. Detection or screening for sleep disorders.
- b. Diagnostics.
- c. Personalized management and treatment of patients with sleep disorders.
- d. Outcome prediction or prognosis evaluation of sleep disorders.
- e. Scoring algorithms for sleep apnea tests.

11. High-impact sleep research: In addition to the above topics, the AASM Foundation will consider select applications that address novel, innovative or “disruptive” areas of investigation. This may include innovative studies in any area of sleep medicine that would impact patient care and patient outcomes for individuals with sleep disorders. Studies that fit into one of the above categories should NOT be listed under this category.

FUNDING INFORMATION

The Strategic Research Award program is organized into two categories to allow flexibility and a range of funding opportunities to potential applicants:

- Category I is for those applicants seeking funding for projects up to \$250,000 and covers a project period of up to three years.
- Category II is for those applicants seeking funding for projects up to \$100,000 and covers a project period of up to two years.

The funds can be used for research expenses such as salary support (commensurate with current stipends or salaries), supplies, participant costs and institutional overhead. There are no restrictions on the distribution of expenses, however, indirect costs are capped at 8%. The award is a contract between the AASM Foundation and the awardee’s institution.

ELIGIBILITY

The following individuals are eligible to apply:

- The applicant must possess a master’s level degree or higher.
- The applicant must have access to the necessary resources (including the proposed patient population), facilities, and other resources needed to perform the proposed work.
- We encourage applicants to be members of the American Academy of Sleep Medicine.
- Applicants outside the US are eligible to apply; however, payment of award funds must be accepted by the institution in US dollars.
- Applicants who are the Principal Investigator on a currently-funded AASM Foundation Strategic Research Award are not eligible to apply. Individuals who are

listed as key personnel on an active AASM Foundation award, but are not the Principal Investigator, are eligible to apply.

Note: In all cases, the applicant must clearly demonstrate the lack of overlap between the funded AASM Foundation project and the proposed work and demonstrate that the individual's budgeted and actual percent time/effort involved in the two awards are appropriate and non-overlapping.

Please note that the AASM Foundation will not fund ongoing projects that are currently funded by another awarding body, and the investigator or organization will be required to make a statement to this effect prior to execution of the contract. These awards are also not intended to supplement ongoing work, for example, for enrolling additional subjects into an ongoing trial.

OTHER REQUIREMENTS

A Letter of Intent (LOI) is required prior to submission of a full application. Applicants will then be notified whether they will be invited to submit a full application. If the LOI is not approved, the applicant may not apply for the award.

LOI REVIEW CRITERIA

The following criteria will be considered in determining whether the applicant will be invited to submit a full application for consideration:

1. Topical responsiveness.
Note: Applications that do not address one of the requested topic areas will not be considered.
2. Potential impact/significance and innovation of the planned research.
3. Feasibility of the planned research.
4. Overall quality of the methods and analytic plan.
5. Expertise and experience of the investigators and other key personnel conducting the planned research.

Please note that the information submitted in the LOI (e.g., category, key personnel, domain) is final and those invited to submit a full application will be bound by the content of their approved LOI unless a modification was specifically requested or approved by the AASM Foundation.

AWARD REVIEW CRITERIA AND PROCESS

For individuals who submit a full application, an award review committee, appointed by the AASM Foundation Executive Committee, will evaluate and score all submitted applications. Factors that will be taken into consideration include:

1. **Significance:** Strong scientific premise of planned research in addressing important problems or critical barriers needed to progress the sleep field.
2. **Investigators:** Experience, training, and ongoing record of accomplishments of the principle investigator(s) and key personnel.
3. **Innovation:** Use of novel theoretical concepts, approaches or methodologies, instrumentation, or interventions that challenge and seek to shift current research or clinical practice paradigms.

4. **Approach:** Strategies to ensure a robust and unbiased approach, methodology, analyses, and benchmarks for success are well-reasoned and appropriate for the specific aims of the planned research.
5. **Environment:** Institutional support, availability of equipment and other physical resources that contribute to the probability of success of the planned research.

Only materials submitted within the application will be used in the evaluation of applications. The AASM Foundation Executive Committee will submit funding recommendation to the AASM Foundation Board of Directors based on the Award Review Committee scores. The AASM Foundation Board of Directors will make the final funding decisions.

PAYMENT SCHEDULE

Category I Awards	
Payment #1 – Upon execution of contract	50%
Payment #2 – At project midpoint after approval of Progress Report	40%
Payment #3 – Upon receipt and approval of Final Report	10%

Category II Awards	
Payment #1 – Upon execution of contract	90%
Payment #2 – Upon receipt and approval of Final Report	10%

If unique circumstances are explained in the budget justification of the applicant’s proposal, the Board of Directors will consider requests for an alternate payment schedule, with a maximum variance of 10%.

Note: Once awarded, reallocation of funds of <10% do not require approval.

DELIVERABLES AND EXPECTED OUTCOMES

Applicants are expected to address the specific aims as described in the application. Major modification of the proposed aims requires AASM Foundation Board of Directors or Executive Committee approval.

The expected results and deliverables should be clearly stated in the application. The applicant must submit progress and final reports during the project period, describing project activities and results, as outlined below. Failure to meet the deliverables or submit progress or final reports may result in termination of project funding.

REPORTING SCHEDULE

Category I and II Awards	
Progress Reports	Every 6 months
Final Report	Within 60 days of award completion

Outcomes evaluation is an essential component of this award. All proposals must identify the goals and appropriate outcomes measures of the research. The outcomes should align with the goals and objectives stated in the applicant’s proposal for this award. The AASM Foundation intends that the research funded by this award will lead to the publication of original research in peer-reviewed journals.

HUMAN/ANIMAL SUBJECT PROTECTION PLAN

If using human or animal subjects, the applicant will be responsible for obtaining Institutional Review Board (IRB) or Institutional Animal Care and use Committee (IACUC) approval. The IRB or IACUC letter of approval for the specified project must be on file with the AASM Foundation office prior to the execution of the contract. No funds will be released for the project without receipt of written approval by an IRB or IACUC. Failure to obtain IRB or IACUC approval will result in retraction of the award.

LOI AND APPLICATION

Step 1: AASM Foundation Grant Request registration

To submit the LOI for this award, you must register on [AASM Foundation Grant Request](#). Please refer to the [AASM Foundation Grant Request User Access Guide](#) for guidance on setting-up an account.

Step 2: Complete LOI Submission

[ACCESS THE 2019 STRATEGIC RESESEARCH AWARD LOI](#)

The LOI Checklist below shows required attachments to be uploaded.

LOI CHECKLIST

Form	Page/Word Limit
<input type="checkbox"/> Face page A. Primary investigator B. Institution C. Institution contact D. Project information	D. 300 words, max
<input type="checkbox"/> Project Personnel A. Primary investigator: Biosketch and other support (required) A. Key personnel: Biosketch and other support (required)	Biosketch: 5 pages per individual Other support: No page limit
<input type="checkbox"/> Letter of Intent	2 pages

Step 3: Complete Application (invited applicants only)

For invited applicants, full applications must be completed and submitted through [AASM Foundation Grant Request](#). A special link for submitting the full application will be sent to invited applicants. Instructions for required forms are available via the online submission system. The Application Checklist below shows required attachments to be uploaded.

APPLICATION CHECKLIST

Form	Page/Word Limit
<input type="checkbox"/> Face page A. Primary investigator B. Institution C. Institution contact	D. 300 words, max

D. Project information E. Signed Applicant Sponsoring Organization Page	
<input type="checkbox"/> Research Plan and Goals A. Abstract B. Research plan and goals	A. 200 words, max B. 6 pages, excluding citations
<input type="checkbox"/> Letters of Support	1 page each
<input type="checkbox"/> Budget and Budget Justification A. Budget B. Budget justification	B. 2 pages
<input type="checkbox"/> Human Subjects/Animal Research Protection Plan	3 pages

AWARD QUESTIONS

We encourage potential applicants to contact us early in the application process with questions. Eligibility questions may need to be reviewed by a member of the AASM Foundation Executive Committee, so please allow for at least a 1-week response time for eligibility questions. For all other inquiries, please allow a minimum of two business days for a response. Please note that questions received within 48 hours of an application deadline may not be answered before the deadline.