APPENDIX

2025 Strategic Research Grant: Obstructive Sleep Apnea (OSA) Research Gaps

The AASM Foundation is committed to improving patient-centered diagnosis and care for people with obstructive sleep apnea (OSA). To ensure that there is continued advancement in effective diagnosis and care of people with OSA, the AASM Foundation provides research funding through the Strategic Research Grant. This grant is investigator-initiated and supports high-impact research projects that address gaps in knowledge so that advancements are made in providing optimal, patient-centered, cost-effective diagnosis and care for people with OSA.

RESEARCH FOCUS

This is a focused request for applications (RFA) open to **projects that address known research gaps in the diagnosis and/or management of OSA**. There have been several publications that have noted the limitations, challenges, and gaps in research with diagnosing and treating OSA, examples of which include the 2022 Agency for Healthcare Research and Quality Technology Assessment on positive airway pressure therapy and the 2021 journal *SLEEP* publication on apnea-hypopnea index. Projects that address these gaps must advance the fields of sleep medicine and population sleep health. Only applications that address known research gaps in the diagnosis and/or treatment of OSA will be considered responsive. Priority will be given to projects that propose following outcomes for 6 months or longer. Examples of research topics of interest are provided below.

- Identifying patient-important outcomes and understanding how they are impacted with treatment (e.g., sleepiness, quality of life).
- Exploring novel ways to characterize OSA (e.g., new/alternative measures, new framework combining multiple measures).
- Building knowledge about personalized OSA care through endotyping, phenotyping, and biomarkers (e.g., identifying patients at most risk of clinically important OSA outcomes).
- Understanding patient preferences and satisfaction with different OSA treatment options.
- Understanding OSA treatment adherence (e.g., barrier to adherence, how adherence relates to outcomes, strategies to address barriers, predictors of adherence to treatment).
- Comparative effectiveness research, especially in special populations (e.g., pediatrics, women, older adults, people with comorbidities), of:
 - o Alternate metrics for diagnosis or characterization of OSA severity
 - Interventions and delivery methods to treat OSA.
 - Interventions (e.g., technology, behavioral, psychological, pharmacologic) to improve OSA treatment adherence.

2025 Strategic Research Grant:

AASM Strategic Plan Goals

The AASM Foundation is committed to improving patient-centered diagnosis and care for people with sleep disorders. To ensure that there is continued advancement in effective diagnosis and care of people with sleep disorders, the AASM Foundation provides research funding through the Strategic Research Grant. This grant is investigator-initiated and supports high-impact research projects that address gaps in knowledge so that advancements are made in providing optimal, patient-centered, cost-effective diagnosis and care for people with sleep with sleep disorders.

RESEARCH FOCUS

This is a focused request for applications (RFA) open to **projects related to the following American Academy** of Sleep Medicine (AASM) Strategic Plan Focus Areas: Sleep Medicine Awareness, Practice Success, and Technology Implementation. Projects that address the AASM Strategic Plan Goals must advance the field of sleep medicine and population sleep health.

Projects that use, study, or expand <u>AASM sleep education resources</u>, <u>AASM Sleep is Good Medicine</u> campaign, <u>AASM quality measures</u>, <u>#sleeptechnology</u>, <u>AASM guidance documents</u>, or results from <u>AASM Foundation-funded projects</u> will be given priority.

Details and examples for each of these specific focus areas are provided below. Only applications that fit into one of these focus areas will be considered responsive.

- **1.** Sleep Medicine Awareness Advance the understanding of the value of sleep medicine. Examples of projects that fall under this strategic goal include, but are not limited to:
 - Developing strategies that build awareness about how sleep disturbances and sleep disorders cause or are associated with other health conditions.
 - Understanding the impact of screening for sleep disorders by non-sleep clinicians.
 - Evaluating the economic impact of treating sleep disorders on long-term healthcare utilization.
- **2. Practice Success** Enhance knowledge about how to deliver quality, innovate care to achieve better outcomes for patients with sleep disorders. Examples of projects that fall under this strategic goal include, but are not limited to:
 - Developing and testing comprehensive and innovative models of care that use a team-based approach for long-term care and management of people with sleep disorders.

- Evaluating the value of services provided by sleep physicians and the sleep team (e.g., economic modeling, retrospective analysis of claims or electronic health record data) and/or assessing how their roles in patient care may evolve in the future.
- Studies that improve patient-centeredness of care by improving the understanding of:
 - Patient preferences and satisfaction with different treatment options for sleep disorders.
 - Predictors of treatment adherence.
- Comparative effectiveness research, especially in special populations (e.g., pediatrics, women, older adults, people with comorbidities), of:
 - Diagnosis of sleep disorders (e.g., new diagnostic devices, delivery methods, alternate metrics for diagnosis or characterization of disease severity, endotyping)
 - Interventions and delivery methods to treat sleep disorders.
 - Interventions (e.g., technology, behavioral, psychological, pharmacologic) to improve sleep disorder treatment adherence.
- **3. Technology Implementation** Increase knowledge of new and emerging technologies, as well as artificial intelligence, in clinical care. Examples of projects that fall under this strategic goal include, but are not limited to:
 - Evaluating current and new technology for expanding delivery of sleep care to improve patient outcomes, quality of care, and cost-effectiveness.
 - Leveraging consumer wearables for promoting and improving sleep in patients, increasing engagement with the sleep team, monitoring and improving patient care and treatment adherence.
 - Harnessing large datasets and computing power to yield greater clinical sleep insights, augment clinical expert opinion of sleep data, enhance diagnostic abilities, patient care, and/or treatment, increase efficiency, or decrease administrative burden.
 - Clinical research on heterogeneous populations comparing artificial intelligence to traditional approaches.

2025 Strategic Research Grant:

Dissemination and Implementation Research

The AASM Foundation is committed to improving patient-centered diagnosis and care for all people with sleep disorders. To ensure that there is continued advancement in the effective diagnosis and care of people with sleep disorders, the AASM Foundation provides research funding through the Strategic Research Grant. This grant is investigator-initiated and supports high-impact research projects that spread awareness about, and implementation of, evidence-based guidance and research advancements so that individuals are provided optimal, patient-centered, cost-effective diagnosis and care for their sleep disorders.

RESEARCH FOCUS

This is a focused request for applications (RFA) **open to dissemination and implementation sleep research projects.**

It's well-known that there is a significant lag time for biomedical research to reach clinical practice, all while there is rapid development of therapies for sleep and circadian disorders that are not reaching the hands of patients.¹ Dissemination and implementation research can help reduce this gap and increase the uptake of evidence-based research findings into real-world practice settings in order to provide optimal, patient-centered, cost-effective diagnosis and care for people with sleep disorders, which is the goal of the Strategic Research Grant.

Dissemination and implementation are defined as:

- Dissemination is the intentional, active process of identifying target audiences and tailoring communication strategies to increase awareness and understanding of evidence, and to motivate its use in policy, practice, and individual choices.
- Implementation is the deliberate, iterative process of integrating evidence into policy and practice through adapting evidence to different contexts and facilitating behavior change and decision making based on evidence across individuals, communities, and healthcare systems.²

The AASM Foundation will support dissemination and implementation sleep research through the Strategic Research Grant focused on these research domains:

1. Dissemination and Implementation of <u>AASM Clinical Guidance Documents</u>

The American Academy of Sleep Medicine (AASM) publishes various guidance documents, such as <u>clinical</u> <u>practice guidelines</u>, <u>clinical guidance statements</u>, <u>position statements</u>, <u>consensus statements</u> and <u>papers</u>, and <u>quality measures</u>. Projects must focus on understanding whether this guidance is followed, identifying barriers to adoption, and evaluating strategies that increase the dissemination, accessibility, and uptake of the AASM's guidance and recommendations among targeted end-users, such as clinicians, patients, caregivers, policymakers, and other healthcare stakeholders.

2. Dissemination and Implementation of Research Findings from <u>AASM Foundation-Funded Research</u> <u>Projects</u>

The AASM Foundation is committed to moving evidence generated from AASM Foundation-funded projects into practice to improve the diagnosis and care for people with sleep disorders. Projects must focus on strategies that facilitate the uptake of AASM Foundation-funded research project findings in real-world practice settings and relevant populations. Applications can be submitted by the original AASM Foundation-funded research project investigator or by an individual investigator with support from the original investigator whose findings are being disseminated or implemented in the project proposal.

¹ Parthasarathy, S., Carskadon, M. A., Jean-Louis, G., Owens, J., Bramoweth, A., Combs, D., Hale, L., Harrison, E., Hart, C. N., Hasler, B. P., Honaker, S. M., Hertenstein, E., Kuna, S., Kushida, C., Levenson, J. C., Murray, C., Pack, A. I., Pillai, V., Pruiksma, K., Seixas, A., ... Buysse, D. (2016). Implementation of Sleep and Circadian Science: Recommendations from the Sleep Research Society and National Institutes of Health Workshop. Sleep, 39(12), 2061–2075. <u>https://doi.org/10.5665/sleep.6300</u> ²PCORI Dissemination & Implementation Mathematica Framework.

https://www.mathematica.org/publications/pcori-dissemination-and-implementation-framework

2025 Strategic Research Grant:

Sleep Health Disparities Research

The AASM Foundation is committed to improving patient-centered diagnosis and care for all people with sleep disorders. To ensure that there is a continued advancement in effective diagnosis and care of people with sleep disorders, the AASM Foundation provides research funding through the Strategic Research Grant. This grant is investigator-initiated and supports high-impact research projects aimed at addressing gaps in knowledge that impact the ability to provide optimal, patient-centered, cost-effective diagnosis and care for people with sleep disorders.

RESEARCH FOCUS

This is a focused request for applications (RFA) **open to sleep health disparities research projects among disadvantaged populations in the United States: racial/ethnic minorities, socioeconomically disadvantaged populations, underserved rural populations, and sexual and gender minority populations.**

It is known that sleep disturbances and deficiencies contribute to poor health and are linked to multiple chronic health problems, mental wellbeing, safety, and work productivity. Additionally, sleep disturbances, deficiencies, and disorders affect disadvantaged populations, which lead to disproportionate sleep health disparities in the United States (US) among Blacks/African Americans, Hispanics/Latinos, American Indians/Alaska Natives, Asians, Native Hawaiians, and Other Pacific Islanders, as well socioeconomically disadvantaged populations, underserved rural populations, and sexual and gender minority populations.¹ In an effort to reduce or eliminate sleep health disparities in the US and equitably provide optimal, patient-centered, cost-effective diagnosis and care for disadvantaged populations with sleep disorders, the AASM Foundation will support sleep health disparities sleep research by funding Strategic Research Grant projects focused on these research domains:

1. Screening, Diagnosis and Treatment of Sleep Disorders

There is a need to increase access and effectiveness of sleep disorder screening and sleep healthcare services among disadvantaged groups across the lifespan, including pediatric populations. Examples of topics that fall under this research domain include, but are not limited to:

- Developing approaches to promote screening of poor sleep and sleep disorders among disadvantaged populations in various settings.
- Expanding access to sleep disorder diagnosis for underrepresented communities.
- Increasing access to treatment and improve outcomes of sleep disorders among disadvantaged patients.

2. Development and Evaluation of Interventions

There is a need to develop and evaluate innovative, multi-level (patient, provider, health system) interventions that are relevant, culturally acceptable, sustainable, and scalable to targeted disadvantaged groups across the lifespan, including pediatric populations. Examples of topics that fall under this research domain include, but are not limited to:

- Studying preventive sleep medicine interventions that target disadvantaged populations early in the life course.
- Evaluating interventions designed to improve sleep health awareness in disadvantaged populations.
- Adapting and developing evidence-based, culturally appropriate interventions across the life course for disadvantaged populations.
- Evaluating existing sleep health and sleep disorders interventions and their economic impact, benefits/harms and/or the values and preferences of these interventions for disadvantaged populations.

¹ Jackson, C.L., Walker, J.R., Brown, M.K, Das, R., Jones, N.L. (2020). A workshop report on the causes and consequences of sleep health disparities. Sleep, 43(8). https://doi.org/10.1093/sleep/zsaa037