2022 Prospectus

Your support will provide continued research in the field of sleep and circadian research to further our understanding of sleep, resulting in more effective medical care and ultimately improving the health and quality of life for patients with sleep disorders and our society.
About the SRS

As pioneers in sleep research since 1961, the Sleep Research Society (SRS) is a membership organization for scientific investigators who educate and research sleep and circadian science. The SRS:

- Provides training and education and forums for the collaboration and the exchange of ideas.
- Advocates on behalf of its members to increase federally-funded sleep research through grass-roots lobbying and communications efforts.
- Publishes the Journal *SLEEP, SLEEP ADVANCES*, produces educational products and provides volunteer opportunities.

Membership Profile

The SRS and its members foster scientific research investigation in all areas of sleep and circadian science. Since 1961 membership has grown in all levels and disciplines within sleep and circadian science across the globe. Today, the SRS represents approximately 1,300 researchers worldwide from promising trainees to accomplished senior level investigators.

SRS members are key decision makers and key opinion leaders in the sleep and circadian community.
SRS PURPOSE:

The Sleep Research Society, through its members and leadership, is organized exclusively for scientific, educational and charitable purposes. The SRS and its members foster scientific research investigation in all areas of sleep.

About the SRSF

Established in 2005, the Sleep Research Society Foundation (SRSF) is the philanthropic arm of the SRS, providing support for investigators to conduct studies that would form the basis of more comprehensive applications to federal agencies, private foundations and corporate partners.

- Since its inception, the SRSF has provided 59 awards totaling $2.1 million. Those awardees have gone on to secure an additional $24.5 million in funding, demonstrating that the SRSF is identifying and funding the next generation of sleep and circadian investigators.

<table>
<thead>
<tr>
<th>TOTAL GRANTS</th>
<th>GRANT RECIPIENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>$2,100,000</td>
<td>59</td>
</tr>
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</table>
Sleep researchers are tackling some of the most prevalent health problems facing humanity today, because the cumulative long-term effects of sleep loss and sleep disorders are associated with a range of serious health issues, including an increased risk of type 2 diabetes, obesity, depression, hypertension, heart attacks and stroke.

“Developing a mechanistic understanding of the threat posed by sleep deficiency and circadian disturbance to health, healthy equity, and health disparities is an urgent challenge.”

2011 National Institutes of Health (NIH) Sleep Disorders Research Plan

Sleep loss hampers our ability to concentrate, reduces motivation and creativity, and increases irritability. Insufficient sleep jeopardizes our personal health, our workplace productivity, and the well-being of our communities.

In the United States, working days lost due to insufficient sleep and sleep disorders, account for $411 billion in economic losses and represent 2.28 percent of our country’s GDP annually.¹

The National Academy of Medicine (NAM) has described the rising trend of insufficient sleep as “an unmet public health problem.”² Thanks to breakthroughs in the field of sleep research, we are now beginning to understand the fundamental importance of sleep.

While the Sleep Research Society (SRS) and the American Academy of Sleep Medicine (AASM) recommend a minimum of seven hours of sleep per night for adults, as many as 56 percent of US adults report that they receive less sleep than needed on weeknights. Only 44 percent say that they get a good night’s sleep every night.³ The connection between poor sleep and poor health is even more startling—evidenced by the fact that 67 percent of those who reported poor quality sleep also reported ‘poor’ or ‘only fair’ health.⁴
Sleep has intrigued the human mind for millennia, but sleep research is a relatively recent field of inquiry. What we do know about sleep we have learned from intrepid researchers, intent on unlocking mysteries and finding answers. Over the past fifty years, sleep research has advanced our understanding of the basic biology and physiology of sleep and circadian rhythms as well as the pathophysiology of sleep disorders. For example:

**Cognitive Aging and Dementia**
While we have known for many years that sleep quality and quantity in older adults influences cognitive function, we are now starting to understand how and why. Slow Wave Sleep serves as a critical link between brain atrophy and memory, helping to clear toxins from the brain related to amyloid beta and tau, the two pathologies related to Alzheimer’s disease. Diminished slow wave sleep in older individuals may contribute to the development of these disorders.

**Obesity**
It has become clear in recent years that sleep loss and the inappropriate timing of eating lead to endocrine abnormalities (e.g., changes in insulin levels and regulation) and appetite changes that ultimately contribute directly to obesity, demonstrating that proper sleep and circadian rhythms have a role to play in combating the obesity epidemic.

**Childhood learning**
Sleep is vital for appropriate learning. We now know sleep plays a key role in memory consolidation at all stages in life. This has critical implications for the role of sleep health in childhood learning and intellectual development. As an example, data show delaying school start times in older kids to better match their natural circadian rhythms reduces absenteeism and may lead to increased grades and performance on standardized tests.

**Sleep and cancer**
Altered timing in the sleep-wake cycle contributes to cancer risk. Cancer, as well as cancer treatments, in turn, cause sleep and circadian disruptions. Recent research shows we can improve sleep and quality of life by treating insomnia in patients and survivors of cancer. Exciting, cutting-edge research is demonstrating how we can use circadian rhythms to optimize the timing of cancer treatments to ultimately provide better outcomes with fewer side effects.

And, while we know that individuals differ in how they respond to sleep loss, shift work, and other sleep/circadian disruptions, we do not yet know how to predict those differences, or how to use them to decrease health and occupational risks and increase productivity. Sleep research matters, and it is vital that we continue to probe and investigate if we are to unlock these mysteries and so many more.
While there is no shortage of innovative thinking and ideas in the field of sleep research, there is a shortage of investigators to spearhead sleep-related research projects, specifically early-career investigators.

As in any scientific field, a pipeline of young investigators is crucial in order to maintain a robust research infrastructure. For sleep research, this challenge is even more daunting, in part due to the limited number of new scientists and clinician/scientists entering and remaining in the field.

This is not a new challenge. As far back as 2006, the Institute of Medicine (IoM), now the National Academy of Medicine, highlighted the “critical paucity of sleep investigators in the training pipeline.” In 2011, as the NIH Sleep Disorders Research Plan was being developed, it was again acknowledged that “the current workforce of appropriately trained researchers is not adequate to address future research priorities.” And as the current baby boom generation of senior researchers move toward retirement, the cultivation and retention of early-career investigators will become even more imperative.

The opportunities for sleep researchers have never been greater — or the need for their research more urgent. New directions and possibilities for sleep and circadian research have exploded over the last decade, involving genetics, molecular biology, physiology, epidemiology, and clinical research. Today, opportunities for research training exist in all areas of sleep and circadian biology. Experimental approaches and state-of-the-art technologies combine to make this a particularly exciting time for the field.

The alarming rise of sleep and circadian disturbances underscores the urgent need for ongoing sleep research. A recent update from the National Center on Sleep Disorders Research indicates that 31 successful new sleep Career Development Awards (K) and Individual Research Fellowships (F) are needed annually to maintain momentum in the field of sleep research.

NIH's 2019 SLEEP RESEARCH

<table>
<thead>
<tr>
<th>BUDGET</th>
<th>K&amp;F AWARDS PORTION ~5%</th>
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</thead>
<tbody>
<tr>
<td>$436 M</td>
<td>$23.9 M</td>
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<table>
<thead>
<tr>
<th>FUNDED GRANTS</th>
<th>EARLY-CAREER INVESTIGATORS - K&amp;F AWARDS ~18%</th>
</tr>
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<tbody>
<tr>
<td>879</td>
<td>162</td>
</tr>
</tbody>
</table>

NIH is the biggest supporter of sleep & circadian researchers, including trainees, however they can’t do it alone.

We have a timely and unprecedented opportunity to make a difference – we have the technology, the biomedical methodologies, but most of all a pressing need. We simply need more early-career investigators in the research pipeline.
The Sleep Research Society and the Sleep Research Society Foundation (SRSF) are uniquely positioned to address the current critical shortage of early-career sleep and circadian researchers.

The SRSF CDA grant has enabled me to fast forward my work on the sleep-mental health link in the general population. Results of project, assessing the cross-sectional and longitudinal associations questionnaire, actigraphy, and polysomnography estimated sleep with the negative feedback loop of the HPA-axis in up to 1700 persons are now being prepared for publication. These results are instrumental for the creation of my research group in sleep and mental health epidemiology, and will kickstart further funding and exciting results.

Annemarie Luik, PhD
Erasmus MC University Medical Center, Rotterdam, Netherlands

SINCE SRSF INCEPTION*

TOTAL GRANTS
$2,100,000

GRANT RECIPIENTS
59

FUNDING RECEIVED FROM OTHER SOURCES AFTER INITIAL FUNDING
$24.5 million

ROI
1,406%

*While SRSF wouldn’t presume to take sole credit for the research careers of the grant recipients, the funding provided by the Foundation offered the critical support necessary to foster and advance those careers at a pivotal time.
The Impact of Funding Sleep and Circadian Research

Huan Yang, PhD
Instructor in Neurology | Beth Israel Deaconess Medical Center/Harvard Medical School

“The Career Development Award from the SRS Foundation was extremely helpful in advancing my career and launching my independent research. The award supported me to expand my research to a new area, collect preliminary data for future grant applications, facilitate my training in clinical trials, and provided the training opportunities for new techniques and analysis. I am very grateful, and the support through the SRS Foundation helped me successfully received my first independent pilot research grant shortly before the end of CDA award period.”

Chanpreet Singh, PhD
Staff Scientist | California Institute of Technology

“The funds provided by the SRSF CDA were instrumental in generating additional data towards the completion of an exciting project, leading to a first-author manuscript that is under preparation.

Additionally, these funds provided me with an opportunity to enhance my technical and analytical skill set and gather preliminary data that will help me in successfully applying for independent NIH funding upon my transition to an independent investigator.”

Grigorious Oikonomou, PhD
California Institute of Technology

“The SRSF Career Development Award provided me with much needed support during the COVID-19 shutdown. During that very difficult period, these funds were critical for my research and allowed me to continue pursuing my projects. I am grateful for the support and would encourage everyone in the sleep and circadian clock community to become more involved with the SRS.”
Saurabh S. Thosar, PhD, OTR/L
Assistant Professor | Oregon Institute of Occupational Health Sciences
Oregon Health & Science University

“Receiving the SRSF Career Development Award has been a career defining moment. It has allowed me to study a clinically important question which has the potential for transforming treatment for people with microvascular dysfunction. This grant has allowed me to collect preliminary data to successfully apply for a K award through the Oregon Clinical & Translational Research Institute. This award, in part, helped me to secure a faculty job and start my own research group. I am genuinely thankful to the reviewers for finding merit in my science and to the Sleep Research Society Foundation for honoring me with this award.”

Ariel Williamson, PhD
Assistant Professor of Psychiatry | Children’s Hospital of Philadelphia

“The SRSF Career Development Award has been instrumental in launching my career as an early-stage investigator in pediatric sleep. This award has allowed me to conduct crucial pilot research on behavioral sleep interventions in primary care, which has directly led to presentations, publications, and additional grant funding. The SRSF award has also provided me with the support necessary to begin building an independent research lab and engaging community partners in stakeholder-informed research. I am incredibly grateful for the research and training experiences afforded to me by this award and thank the SRSF for this tremendous opportunity.”
EARLY-CAREER INVESTIGATORS need your support

Without ongoing sleep research and healthy numbers of researchers in the career pipeline, we will not make the breakthroughs we need to address the troubling trend of inadequate sleep and sleep disorders. Without these young researchers, product innovations and the revelations that change the way we evaluate, diagnose and treat individuals who are affected by sleep disorders will never happen. By attracting and retaining the next generation of early-career investigators to the field of sleep research now, we will ensure that the most promising minds are dedicated to defining the future of our field.

The SRSF recognizes the challenges of transitioning from post-doctoral training to independent research funding.

The goal of these awards is to invest in promising early-career researchers and assist with their transition into independence as junior investigators. Recipients are expected to apply for a mentored or independent federal research award within the funding period, and the results of a recent SRSF survey reveal that 65 percent of grant recipients who responded had successfully secured additional funding for their projects.

AWARD FUNDING

<table>
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<th>Ranged Contributions</th>
<th>SRS Members Support</th>
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<tbody>
<tr>
<td>$17K–$2.16M</td>
<td>up to 4</td>
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<tr>
<td>up to $50,000</td>
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Based on survey results from grant recipients who secured additional funding for their projects.

ADDITIONAL FUNDS SECURED TO CONTINUE PROJECTS

<table>
<thead>
<tr>
<th>Ranged Contributions</th>
<th>Approx Total Support</th>
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<tr>
<td>$17K–$2.16M</td>
<td>$8.52M</td>
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</table>
EARLY-CAREER INVESTIGATORS need your support

CAREER DEVELOPMENT AWARD

SRS Small Research Grant

This grant is designed to support the research of trainees and early career investigators who otherwise do not have the institutional resources to support new studies and/or do not have a sustained record of external funding. This grant provides funding to support research to ultimately allow individuals to successfully apply for or complete career development grants (e.g. K-awards).

One Year Award: Up to $5,000 per award

MENTORSHIP AWARD

SRS Mentor Mentee Award

The goal of the SRS Mentor Mentee Award is to link trainees who have limited sleep/circadian mentoring options in their chosen field of interest to mentors that can provide rich, face-to-face opportunities in state-of-the-art research techniques and methods.

One Year Award: Up to $3,500 per award

EDUCATION SCHOLARSHIPS

Awards to SLEEP conference and the Advances in Sleep and Circadian Science meeting

These awards support early-stage investigators with registration awards, allowing them to continue to learn and grow as sleep and/or circadian researchers. Annual Award: Covers the cost of registration.

SLEEP Post Graduate Course Scholarship

These scholarships fund select early career stage researchers at the post-doctoral, instructor, or assistant professor level to attend the post graduate course at SLEEP. Annual Award: Covers the cost of registration.

SLEEP Undergraduate Scholarship

These scholarships fund undergraduates to attend SLEEP. Annual Award: Covers the cost of registration.

Young Investigator’s Research Forum Scholarships

The SRSF partners with the AASM Foundation to provide scholarships to attend the annual Young Investigator’s Research Forum that is aimed at providing guidance, tactics, and strategies to better position young investigators for a successful career in sleep and circadian research. One Year Award: Covers the cost of registration.
Corporate Partners Program

We invite you to join the cause. Help impact the future of sleep and circadian research.

**KNOWLEDGE**
Share scientific updates and call for research proposals with SRS members. Exchange research ideas and techniques and brainstorm potential solutions to the challenges impacting the sleep and circadian fields through the Industry Advisory Council (IAC). Stay informed utilizing SRS publications.

**CONNECTIONS**
Gain access to SRS members to cultivate relationships with key opinion leaders throughout the world.

**PROMOTION**
Receive a variety of opportunities to showcase your products and science to SRS members. Increase your exposure through additional event-related sponsorship/exhibiting, exhibiting, sponsorship, and advertising opportunities.

**RECOGNITION**
As a supporter of the Sleep Research Society Foundation, your company is recognized for your contribution throughout the year and in a wide variety of venues.

**ADVOCATE**
Demonstrate your shared commitment to grow the field of sleep and circadian research.
### 2022 EXPOSURE & BENEFITS

Support a charitable non-profit 501c3 and receive tax deductible savings.

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<th>Corporate Partner Benefits (Scaled level of support)</th>
<th>Chairman's Circle $100,000</th>
<th>Pearl Circle $75,000</th>
<th>Diamond Circle $50,000</th>
<th>Emerald Circle $20,000</th>
<th>Ruby Circle $10,000</th>
<th>Sapphire Circle $5,000</th>
<th>Jade Circle $2,500</th>
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<tr>
<td>Recognition on Corporate Partners Web Page</td>
<td>X</td>
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<td>Recognition in bi-monthly SRS Newsletter, SRS Update (42.3% open rate)</td>
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<td>Recognition in quarterly SRSF newsletter, Impact Update (32.5% open rate)</td>
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<td>Signage and verbal recognition at SRS related events at SLEEP meeting</td>
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<td>Use of Corporate Partners Badge</td>
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<td>Scientific Update (one time - email and newsletters)</td>
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<td>Call for Research Proposals (announcement of call and winners)</td>
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<td>SRS Membership Mailing List (one-time rental) discount</td>
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<td>SRS Membership Survey (complimentary)</td>
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<td>Recognition (logo and hyperlink) on SRS and SRSF homepage</td>
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<td>Focus group of SRS members hosted at SRS-related event or digitally</td>
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<td>Advances in Sleep and Circadian Science (ASCS) Conference registrations (2 complimentary)*</td>
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*ASCS meeting occurs in February 2023. Must be an active supporter at the time of the meeting to receive benefits.
Publications

Journal SLEEP

*advertising opportunities available.*

Now in its 45th year, SLEEP is a peer-reviewed, international journal of sleep and circadian science, and is the official publication of the Sleep Research Society.

**10,000+ individual subscribers**

(7,000+ MDs 3,000 PhDs)

<table>
<thead>
<tr>
<th>Impact Factor</th>
<th>5 year Impact Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.849</td>
<td>6.788</td>
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</table>

SLEEP Advances

SLEEP Advances is a peer-reviewed, online-only, Gold Open Access companion journal to SLEEP. It publishes original research articles, commentaries, and review papers in sleep and circadian science across the basic, translational, and clinical research spectrum.

Bi-monthly newsletter sent to

**1,300+ members**

42.3% open rate

Corporate Partners are recognized.

Quarterly newsletter sent to

**5,000+ subscribers**

32.5% open rate

Corporate Partners are recognized.
Recognition & Advertising

Ad top banner premier location: 600 x 300; 250k maximum
File size: Maximum allowed 50 KB
File type: GIF, JPG, PNG
Please include clickthrough URL
NOTE: the messaging can be commercial (promoting products)

Ad box size: 283 x 200
File size: Maximum allowed 50 KB
File type: GIF, JPG, PNG
Please include clickthrough URL
NOTE: the messaging can be commercial (promoting products)
Meetings

**SLEEP 2023**
June 4 – 8, 2022 in Charlotte, NC

Now in its 36th year, SLEEP is the annual meeting of the Associated Professional Sleep Societies, LLC (APSS), which is a joint venture of the American Academy of Sleep Medicine (AASM) and the Sleep Research Society (SRS).

SLEEP is the premier clinical and scientific meeting in the sleep field, bringing together 5,000 sleep medicine physicians, sleep and circadian scientists, and other health care providers to discuss the latest advances in sleep science and new developments in the diagnosis and treatment of sleep disorders.

The SLEEP meeting provides evidence-based education to advance the science and clinical practice of sleep medicine, disseminates cutting-edge sleep and circadian research, promotes the translation of basic science into clinical practice, and fosters the future of the field by providing career development opportunities at all levels.

**ADVANCES IN Sleep & Circadian SCIENCE**
February 17 – 20, 2023 at the Sheraton Sand Key Resort in Clearwater, Florida

The SRS is proud to host this biennial conference, which features innovative content from subject matter experts across numerous specialties within the sleep and circadian sciences, abundant networking opportunities from trainees to established investigators.

*Sponsorship and Exhibitor Opportunities Available.*

**Industry Advisory Council**
Sleep Research Society Foundation
Virtually in Spring 2022

This annual scientific meeting is typically held virtually. Qualifying corporate partners and key opinion leaders in the sleep and circadian sciences are invited to this exclusive event to discuss issues, share research ideas and techniques, and brainstorm potential solutions to the challenges impacting the sleep and circadian field. A networking opportunity will be provided at the SLEEP meeting 2022.

Participating corporate partners submit questions in advance of the roundtable discussions, provide preferred key opinion leaders to attend and receive a private recording of the discussion. Additionally, the entire team can participate in all 6 topic roundtable discussions, which are:

- 2022 Topic Areas:
  1. Targeting Sleepiness
  2. Circadian Rhythm Disorders
  3. Insomnia
  4. Narcolepsy
  5. Sleep Apnea
  6. Wearables/Remote Assessment
Thank You to our current Corporate Partners

Chairman's Circle - $100,000+

- Jazz Pharmaceuticals

Diamond Circle - $50,000+

- Avadel
- Eisai
- NOX medical
- ResMed
- SomnoMed
- PHILIPS
- Takeda
- WHOOP

Emerald Circle - $20,000+

- dreem
- Fisher & Paykel Healthcare
- Signifier
- ZOLL

Ruby Circle - $10,000+

- Harmony Biosciences

Sapphire Circle - $5,000+

- Big Health
- PEAR Therapeutics
- sleep
- SleepScore Labs
- VANDA
Advancing Sleep and Circadian Research

Christine A. Davis | Foundation Director
cdavis@srsnet.org | 630-737-9702
References & Further Reading


   rand.org/pubs/research_reports/RR1791.html


   sleepfoundation.org/sites/default/files/RPT495a.pdf

4 *Sleep Health Index 2014 – Highlights*. National Sleep Foundation.

   sleepfoundation.org/sleep-health-index-2014-highlights


6 2011 *National Institutes of Health Sleep Disorders Research Plan*.

   nhlbi.nih.gov/health-pro/resources/sleep/nih-sleep-disorders-research-plan-2011

7 NIH RePORT (Research Portfolio Online Reporting Tools), Data Downloaded 4/8/2021.

   report.nih.gov/