

Sleep Research Society Foundation

2019 ANUAL REPORT Supporting Sleep and Circadian Research

MISSION: The Sleep Research Society Foundation is committed to the growth and development of the field of sleep research through education and research funding opportunities.



\$1.7 MILLION in support of research by 51 early career scientific investigators

The Sleep Research Society Foundation (SRSF) provides support for growth and development in the field of sleep and circadian research. The SRSF was established in 2005 by the Sleep Research Society Board of Directors to provide support for investigators to conduct pilot studies that would form the basis of more comprehensive applications to federal agencies, private foundations and industry partners.

Since its inception, the SRSF has awarded more than \$1.7 million in support for research by 51 early career scientific investigators. The SRSF has helped investigators obtain NIH and other government funding through research supported by SRSF awards.

A MESSAGE FROM THE PRESIDENT KRISTEN L. KNUTSON, PhD



The Sleep Research Society Foundation (SRSF) is pleased to share news and updates of the Foundation's activities in 2019.

We successfully launched the first SRSF annual appeal to raise funds for important programs beyond the flagship SRSF Career Development Award, which helps to support early-career investigators. These programs include the SRS Mentor-Mentee Award and

travel awards/scholarships to specialized meetings, including the 2019 Advances in Sleep and Circadian Sciences meeting, the 2019 SLEEP Meeting Post Graduate Course, and the 2019 Young Investigator's Research Forum. We are happy to share that the 2019 Annual Appeal raised \$30,309 from 195 SRS members! The success of this appeal could not have been possible without the efforts of the 2019 Annual Appeal Committee, chaired by Kathy Reid, PhD. The committee's enthusiastic outreach efforts to peers and our generous SRS members helped 42 early-career investigators to attend conferences or meet with mentors.

The Foundation announced the seventh solicitation for the SRSF Career Development Award, receiving 33 high quality applications. This SRSF award is an important stepping-stone to future success for many of the recipients. We are extremely grateful to the Scientific Review Committee, chaired by Cathy Alessi, MD, for undertaking the review of these proposals. The review process was aligned to the NIH grant review model, scoring each of the submissions for scientific merit, mentoring, environment and research plan. The Sleep Research Society Foundation Board of Directors gratefully accepted the Committee's Report and selected four of these proposals to fund. Three awards are on the broad topic of sleep/circadian research and one on the topic of sleep and electrical neuro-modulation. The three proposals selected under sleep/circadian research represent a broad range of topics and approaches including: a project by Annemarie I. Luik, PhD to disentangle the association between the HPA-axis and poor sleep using a longitudinal population-based approach; another by Chanpreet Singh, PhD, who is investigating the mechanisms underlying sleep regulation by vasoactive intestinal polypeptide in zebrafish; and a project by Huan Yang, PhD that will examine RAAS biomarkers of renal function and blood pressure in response to repetitive sleep restriction. On the topic of sleep and electrical neuro-modulation, Jason L. Yu, MD will

work to determine novel polysomnographic metrics of arousal as predictors of the success of upper airway stimulation. The scope of the work to be supported in the coming year reflects the growth of our field and the need to support career development for investigators from a variety of areas. These projects help to increase the knowledge of sleep and circadian science and change the way we think about the impact of sleep in public health. Funding for these awards would not be possible without committed pledges of support from SRS members and corporate partners through the Funding Our Future Scientists Campaign.

In 2017, the Sleep Research Society Foundation embarked on the "Funding our Future Scientists" Campaign, an international fund-raising initiative to fund the SRSF Career Development Awards, which provides early-career sleep and circadian investigators with resources to further their research and launch their careers to make significant advances in sleep and circadian science. With nearly \$2.5 million secured in pledges from individual and corporate support to be fulfilled over five years, SRS members and industry have demonstrated their unprecedented support of the SRSF. The success of the Campaign's effort would not have been possible without the leadership of Allan I Pack MBChB, PhD, the dedicated members of the National Steering Committee, and the generous support of our corporate partners and Sleep Research Society members. Further details of the Campaign are provided in the pages of the report. We are thrilled to report that since the Campaign's inception, we have secured \$199,554 from 93 committed SRS members and \$582,000 from 13 committed corporate partners, making it possible to fund 10 SRSF Career Development Award recipients between 2017 and 2019! We urge you to continue fulfilling on your pledge to the Campaign so we can continue to safeguard the future of our field through supporting the cutting-edge research of our early-career members that is made possible through the SRSF Career Development Award.

The importance of these career development awards and programs for the advancement of scientific careers cannot be overstated and cannot be achieved without your support. Let us continue to support current and future contributions to sleep and circadian science, which impacts sleep in public health. If you have not donated to the SRSF, I personally urge you to support the important work of the SRSF. We are pleased to share with you the report on Foundation activities and the success stories of our early career investigators on the following pages of our 2019 annual report. Annual APPEAL

2019



The Sleep Research Society Foundation wishes to acknowledge and thank the following individuals for their contributions which directly supported the programs related to the 2019 Annual Appeal.

\$5,000+

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We make every effort to ensure accuracy in donor reporting. Names are listed as they were provided during donation process.

The Sleep Research Society Foundation is grateful for the dedication of our Annual Appeal volunteers. These individuals are responsible for leading this effort and their contributions should be applauded.



Kathrvn Jean Reid. PhD Northwestern University



Christopher Depner, PhD University of Colorado Boulder



Megan Petrov, PhD Arizona State University



Josiane Broussard, PhD Colorado State University



Sarah Farabi, PhD University of Colorado



Nina Shattuk. PhD Naval Postgraduate School



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Philip Cheng, PhD Henry Ford Health System



Michael A Grandner, PhD, MTR, **DBSM. FAASM. FAHA**





Andrea Spaeth, PhD Rutgers School of Arts and Sciences



The SRSF was pleased to support these early stage investigators so they can continue to learn and grow as sleep and circadian researchers. Thank you to the many 2019 Annual Appeal donors who made this possible!

2019 SRS Mentor-Mentee Award Recipients

This award supports trainees with limited mentoring options in their chosen field of interest and connects them to mentors at other institutions, providing face-to-face learning of state-of-the-art research techniques, method, and grant writing.

Sammy S. Dhaliwal – TheGeorge Washington University Remington Mallett – University of Texas at Austin Oluwatosin Olorunmoteni – Obafemi Awolowo University Darian Sidebottom – Washington State University

2019 Advances in Sleep and Circadian Sciences Meeting Travel Award Recipients

These travel awards were based on a poster abstract submitted to SRS's Advances in Sleep and Circadian Science conference. All winners presented their science during the poster sessions at the conference. The SRSF fully funded 20 and assisted with securing the funding for another 10 recipients of this award.

Alfonso Alfini	Enmanuelle Pardilla Delgado
Sofia Axelrod	Christopher Michael Depner
Maria Neus Ballester Roig	Leela Chakravarti Dilley
Darius Becker-Krail	Camilla Hoyos
Ryan Bottary	Joy Joseph
Marissa Ann Bowman	Kyle Ketchesin
Omonigho Bubu	Sara Yunha Kim
Jacob Clark	Heidi Lammers-van der Holst

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2019 SLEEP Meeting Post Graduate Course Scholarship Recipients

This award supports postgraduates by funding their attendance at the post graduate course, an intensive single topic educational opportunity held half-day or full day in conjunction with the SLEEP meeting.

Todd M. Bishop, PhD – University of Rochester Medical Center Omonigho M Bubu MD, MPH, PHD - New York University Jennifer R Goldschmied PhD – University of Pennsylvania

2019 SRSF Young Investigator's Research Forum Scholarship Recipients

The SRSF partnered with the AASM Foundation to provide scholarships for travel to this event which is aimed at providing guidance, tactics, and strategies to better position young investigators for a successful career in sleep and circadian research.

Sammy S. Dhaliwal – The George Washington University Ivy Mason, PhD – Harvard Medical School Jennifer Blankenship, PhD – University of Colorado Daniel Lee, PhD – California Institute of Technology Stephanie Griggs, PhD, RN – Yale University School of Nursing

INTERESTED IN SUPPORTING THE NEXT GENERATION OF SLEEP AND CIRCADIAN RESEARCHERS?

Looking Back...

- Would it have been beneficial to attend more scientific conferences as a trainee?
- Did you have a mentor that helped you navigate your path early in your career?
- Was applying for your first grant an overwhelming experience?
- Do you think an additional \$50,000 in research funding would have helped jump-start your career?

The SRS Foundation provides funding for travel grants, mentor programs, grant writing workshops, investigator research awards, and other programs that benefit early-career investigators. Your contribution of \$50, \$100, \$250, \$500, or \$1,000 will help underwrite these programs to recruit the best and brightest to the sleep and circadian sciences.



Make your donation today at sleepresearchsociety.org/foundation or by scanning the QR code.

All contributions are tax-deductible and will be recognized through SRSF's comprehensive recognition program! Make your gift today!



Funding Our Future Scientists CAMPAIGN

In 2017, the Sleep Research Society Foundation embarked on the "Funding our Future Scientists" Campaign, an international fund-raising initiative to raise support to fund early-career investigator awards so more sleep and circadian researchers will be able to launch their careers to make the significant advances needed to understand and treat sleep disorders.

With nearly 2.5 million secured in individual pledges and corporate support to be fulfilled over 5 years, SRS members and industry have demonstrated their unprecedented support of the SRSF.



Thank You to the Supporters of the Funding Our Future Scientists Campaign!

Without support from our SRS members and corporate partners, none of this would be possible. Thank you to those who have completed their pledges and those who are committed to fulfilling their pledge commitments in the future.

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Funding Our Future Scientists CAMPAIGN

The Sleep Research Society Foundation thanks the supporters of the Funding Our Future Scientists fundraising initiative. Without support from our members, none of this would be possible. Thank you all for everything you do.

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Funding Our Future Scientists CAMPAIGN

This initiative is paramount to the success of the SRSF Career Development Award.

Thank you for your multiyear commitment.



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CORPORATE PARTNERS PROGRAM

We truly appreciate your annual commitment in support of our programs.

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LEADERSHIP

The Sleep Research Society Foundation is grateful for the dedication of all of our Campaign volunteers. These individuals are responsible for leading this effort and their contributions should be applauded.



Allan I. Pack MBChB, PhD



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David P. White, MD



Career Development AWARD

2019 CAREER DEVELOPMENT AWARDEES



Annemarie I. Luik, PhD ERASMUS MC UNIVERSITY MEDICAL CENTER

Disentangling the association between the HPA-axis and poor sleep: A longitudinal population-based approach



Chanpreet Singh, PhD CALIFORNIA INSTITUTE OF TECHNOLOGY Investigating the mechanisms underlying sleep regulation by Vasoactive Intestinal Polypeptide in zebrafish



Jason L. Yu, MD UNIVERSITY OF PENNSYLVANIA Novel polysomnographic metrics of arousal as predictors of Upper Airway Stimulator success



Huan Yang, PhD BETH ISRAEL DEACONESS MEDICAL CENTER/HARVARD MEDICAL SCHOOL RAAS biomarkers of renal function and blood pressure response to repetitive sleep restriction

We are confident that these early career stage investigators will increase our knowledge of sleep and circadian science and change the way we think about the impact of sleep in public health. Since 2008, the Sleep Research Society Foundation has worked tirelessly to widen the reach of our support for early-career investigators. Below are the researchers that have been funded since this award program's inception.

Ye	ars	Name		Institution	Project Title
	2018		Saurabh Thosar, PhD	Oregon Health & Science University	Circadian Rhythms of Vascular Function in Cardiovascular Disease
	2018		Heming Wang, PhD	Brigham and Women's Hospital, Harvard Medical School and Broad Institute	Multi-Omics Investigation of Iron-Related Pathways in Sleep-Disordered Breathing
	2018		Ariel Williamson, PhD	Perelman School of Medicine, University of Pennsylvania and Children's Hospital of Philadelphia	Adapting an Evidence-Based Behavioral Sleep Intervention for Urban Primary Care
	2017		Yu Sun Bin	University of Sydney	What is long sleep? Objective correlates of long sleep duration and prospective associations with healthcare utilization
	2017		Matthieu Flourakis	Northwestern University	Role of the cationic leak channel NALCN in mammalian circadian physiology
	2017	6	Anne Venner	Beth Israel Deaconess Medical Center and Harvard Medical School	Functional characterization of a genetically and anatomically defined sub-population underlying insomnia
	2016		Christopher Depner, PhD	University of Colorado Boulder	Mechanisms of insufficient sleep contributing to metabolic disease risk and impact from sleep "weekend recovery"
	2016		Jeffrey Donlea, PhD	University of California Los Angeles	Using the fruit fly to identify consequences of sleep loss in memory-encoding circuits

Career

AWARD

Development

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Years	Name		Institution	Project Title
2016		Heather E. Gunn, PhD	University of Pittsburgh	Adolescent sleep, circadian rhythmicity, and cardiovascular disease risk: a dyadic approach
2014-2015		Josiane Broussard, PhD	University of Colorado Boulder	Influence of physical activity status on the effects of insufficient sleep on metabolism
2014-2015		Sara Biggs, PhD	Monash University	Identifying pathways for new treatment strategies for children with primary snoring
2014-2015		Michael Scullin, PhD	Baylor University	Slow-wave sleep and prospective memory consolidation in aging adults
2014-2015		Jon T. Willie, MD, PhD	Emory University	Reflex and murine cataplexy: proof of concept for novel therapy for narcolepsy type 1
2013-2014		Joseph Dzierzewski, PhD	University of California Los Angeles	Long-term clinical outcome of hypersomnia in at-risk older adults
2013-2014	S	Jimmy Fraigne, PhD	University of Toronto	Optogenetic probing of narcolepsy/ cataplexy dopamine circuitry
2013-2014		See Wan Tham, PhD	Seattle Children's Hospital	Sleep-wake disturbances and pain responsivity in adolescents
2010-2011	Q	Monika Haack, PhD	Beth Israel Deaconess Medical Centre & Harvard Medical	School Does sleep maintenance insomnia lead to stronger activation of stress response systems then sleep onset insomnia?
2008-2010		Natalia Tulina, PhD	University of Pennsylvania	Function of sleep in the regulation of stem cell activity

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