



Sleep  
Research  
Society  
Foundation

# 2018–2019 ANNUAL REPORT

*Supporting Sleep and Circadian Research*



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 Sleep Research Society Foundation has awarded more than \$1.7 million in support for research by 51 early stage scientific investigators. The SRSF has helped investigators obtain NIH and other government funding through research supported by SRSF awards.

## 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.



**Kathryn J. Reid, PhD**  
*President*  
*Sleep Research Society Foundation*

## A MESSAGE FROM THE SRSF PRESIDENT

The Sleep Research Society Foundation (SRSF) is pleased to share news and updates of the Foundation's activities for 2018-19. The Foundation announced the sixth solicitation for the SRSF Career Development Award, receiving 33 high quality applications. This SRSF award is an important stepping-stone to the 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. On March 8, 2019, the Sleep Research Society Foundation Board of Directors gratefully accepted the Committee's Report and selected to fund four of these proposals.

This year, the SRSF was able to support three awards on the broad topic of sleep/circadian research and another 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 Dr. Annemarie I. Luik to disentangle the association between the HPA-axis and poor sleep using a longitudinal population-based approach; another by Dr. Chanpreet Singh, who is investigating the mechanisms underlying sleep regulation by Vasoactive Intestinal Polypeptide in zebrafish; and a project by Dr. Huan Yang 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, Dr. Jason L. Yu 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 is a reflection of the growth of our field and the need to support career development for investigators from a variety of areas. All of 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.

This year also marks a very exciting time for the SRSF with the success of our Funding Our Future Scientists Campaign, elevating financial resources for the Foundation early-career award program. Over the past year, we have secured pledges from 121 individuals totaling \$427,700 and from 15 corporate partners totaling \$1,990,000, which will be paid out over a 5 year period. I would like to take this opportunity to thank all supporters of the SRSF Funding Our Future Scientists Campaign. The success of this Campaign would not have been possible without the leadership of Dr. Allan Pack, 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 report.

On the heels of this success, we have launched the first of what I hope will be many Annual Appeals. With the support of a team of dedicated Sleep Research Society members who serve on the Annual Appeal Committee, we have set a goal of raising an additional \$75,000 in 2019. These funds will be used to support other initiatives of the SRSF including the Mentor/Mentee Program, Travel Awards to specialized meetings such as Advances in Sleep and Circadian Sciences, SLEEP Meeting Post Graduate Course Scholarships, and scholarships to attend the Young Investigator's Research Forum. I would also like to take this opportunity to congratulate Dr. Kristen Knutson who will take over these efforts in June 2019 as the incoming President of the SRSF.

It has truly been a pleasure to serve the Sleep Research Society membership. I hope that the initiatives the SRSF has implemented over the past two years will be the cornerstone for future programs that continue to advance sleep and circadian science.

The importance of these career development awards and programs for the advancement of scientific careers cannot be overstated. The awards provide seed money for early-career investigators, which is important in defining their future success as investigators. We are pleased to share with you the report on Foundation activities and success stories on the following pages of the 2018-19 annual report.

# TRAVEL AWARD WINNERS

*The SRSF is pleased to be able to support the following early stage investigators with travel awards so they can continue to learn and grow as sleep and/or circadian researchers.*

## Mentor/Mentee Award Winners

---

The Mentor/Mentee Awards support trainees with limited sleep/circadian mentoring options in their chosen field of interest to mentors at other institutions that can provide rich, face-to-face opportunities in state-of-the-art research techniques, methods, and grant writing.

Samantha Riedy – Washington State University      Stephen Thankachan, PhD – Harvard Medical School

## Travel Award to Advances in Sleep and Circadian Science

---

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.

Alfonso Alfini	Enmanuelle Pardilla Delgado	Daniel A Lee	Kate E Sprecher
Sofia Axelrod	Christopher Michael Depner	Carmel Annette Martin-Fairey	Kevin Michael Swift
Maria Neus Ballester Roig	Leela Chakravarti Dilley	Hylton Molzof	Masashi Tabuchi
Darius Becker-Krail	Camilla Hoyos	Ankit Ashok Parekh	Stephen Justin Thomas
Ryan Bottary	Joy Joseph	Elsa Pittaras	David Samuel Uygun
Marissa Ann Bowman	Kyle Ketchesin	Basma Mahmoud Radwan	Robin Yuan
Omonigbo Bubu	Sara Yunha Kim	Champion Seun-Fadipe	
Jacob Clark	Heidi Lammers-van der Holst	Ari Shechter	

## Travel Award to Young Investigators Research Forum

---

The SRSF partnered with the AASM Foundation to provide scholarships to the annual Young Investigators 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.

Sammy Dhaliwal, MSc, MS      Ivy Mason, PhD      Jennifer Blankenship, PhD      Daniel Lee, PhD      Stephanie Griggs, PhD, RN



## LETTER FROM FUNDING OUR FUTURE SCIENTISTS CAMPAIGN CHAIR

Dear friends of the SRSF:

Thank you to everyone who participated in the Funding Our Future Scientists Campaign. We were successful in raising nearly \$2.5 million in pledged donations, payable over the next five-years, from individuals and corporate partners. The funds raised from this effort will allow the SRSF to significantly increase the number of early-career investigator awards we offer on an annual basis. Based on our track-record of success in funding the best and brightest early-career sleep and circadian researchers, we can expect these additional awards to positively impact our field.

None of this could have been possible without the help of the many volunteers who assisted with this Campaign. From making connections with corporate partners or soliciting friends and peers, your leadership and support was vital to the success of this effort.

No matter the size of your contribution, whether it be \$100 or \$500,000, or how many hours you volunteered for the Campaign, the Foundation is grateful for your support. The Sleep Research Society Foundation is more strongly positioned to continue to fulfill its mission of growing and developing the field of sleep and circadian research through education and research funding opportunities.

Sincerely,

A handwritten signature in black ink, appearing to read 'Allan Pack', with a long, sweeping flourish extending from the end of the name.

Allan Pack, MBChB, PhD,  
Chair



## FUNDING OUR FUTURE SCIENTISTS CAMPAIGN 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 Pack, PhD –  
Chair



David Dinges, PhD



Sean Drummond, PhD



Patrick Fuller, PhD



Andrew Krystal, MD



Emmanuel Mignot,  
MD, PhD



Janet Mullington, PhD



Mark Rosekind, PhD



Thomas Roth, PhD



Kathryn J. Reid, PhD



James K. Walsh, PhD



Terri E. Weaver, PhD



David P. White, MD

## FUNDING OUR FUTURE SCIENTISTS CAMPAIGN DONORS

*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.*

### Chairman's Circle

Anonymous

Sean P.A. Drummond, PhD

Patrick M. Fuller, PhD

Michael Irwin, MD

Andrew D. Krystal, MD

Emmanuel Mignot, MD, PhD

Allan I. Pack, MBChB, PhD

Mark Rosekind, PhD

### Diamond Circle

Julie Carrier, PhD

Janet M. Mullington, PhD

Susan Redline, MD

Kathy Reid, PhD

Patrick J. Strollo Jr., MD

Ronald S. Szymusiak, PhD and  
Polly Moore, PhD

Robert J. Thomas, MD

David P. White, MD

### Emerald Circle

Sabra M. Abbott, MD, PhD

Sonia Ancoli-Israel, PhD

Daniel J. Buysse, MD

Mary A. Carskadon, PhD

Jeanne F. Duffy, PhD

Colin A. Espie, PhD

H. Craig Heller, PhD

Thomas Kilduff, PhD

Larry Kline, DO, FAASM

Kathy Lee, PhD, RN

Brendan Lu, MD

Ulysses J. Magalang, MD,  
FAASM

Naresh M. Punjabi, MD, FAASM

Peter Shiromani, PhD

Gary K. Zammit, PhD

### Ruby Circle

Sara J. Aton, PhD

David F. Dinges, PhD

Meir Kryger, MD

Jennifer L. Martin, PhD

Oregon Institute of  
Occupational Health Sciences

David M. Rapoport, MD

Eve Van Cauter, PhD

Kenneth P. Wright, PhD

### Sapphire Circle

Anonymous

Raanan Arens, MD

Najib Ayas, MD

Radhika Basheer, PhD

Donald L. Bliwise, PhD

Jeff Borchardt

Jun Cai, PhD

Michael W. Chee, MBSS

Chiara Cirelli, MD, PhD

Christopher M. Depner, PhD

Christopher Drake, PhD

Victor B. Fenik, PhD

Namni Goel, PhD

Joshua J. Gooley, PhD

Susan T. Harbison, PhD

Michael C. Khoo, PhD

Daniel G. Lorch, Jr., MD

Mark Mahowald, MD, FAASM

Andrew A. Monjan, PhD

John Noel

Masaka Okawa, MD

Thomas Penzel, PhD

Carol A. Rosen, MD, FAASM

Russell Rosenberg, PhD, FAASM

Thomas Roth, PhD

Jo M. Solet, PhD

Robert Stickgold, PhD

Katie L. Stone, PhD

Sigrid C. Veasey, MD

James K. Walsh, PhD

Simon Warby, PhD

Edward M. Weaver, MD

Terri E. Weaver, PhD, RN

Shawn D. Youngstedt, PhD

### Jade Circle

Mark S. Blumberg, PhD

Josiane L. Broussard, PhD

Tony Cunningham, PhD

Raj C. Dedhia, MD

Jeffrey S. Durmer, MD, PhD

Carol A. Everson, PhD

Barbara E. Jones, PhD

Elizabeth B. Klerman, MD, PhD

Kristen L. Knutson, PhD

Dorit Koren, MD

Bruce F. O'Hara, PhD

Aric A. Prather, PhD

David M. Raizen, MD, PhD

Clifford B. Saper, MD, PhD

Nita L. Shattuck, PhD

Ignacio E. Tapia, MD

Wendy Troxel, PhD

Arthur S. Walters, MD

Phyllis C. Zee, MD, PhD

## 2018 ANNUAL APPEAL DONORS

*The Sleep Research Society Foundation wishes to acknowledge and thank the following individuals for their contributions in 2018.*

Christine Acebo, PhD	June Fry	Abul Matin	Steven Scharf
Pranshu Adavadar, MD	Jacqueline Genova	Franklin McCool	Carlos H Schenck, MD
Daniel Aeschbach, PhD	Valerie Gill, PhD	Hailey Meaklim	Herbert Scherzer
Cathy A Alessi, MD	Daniel Glaze	Lisa J Meltzer, PhD	Edward P Schuman, MD, FAASM
Candice A Alfano, PhD	Heinrich Gompf, PhD	Wendy Meyers	Qurratul Shamim-Uzzman, MD
Malaz Almsaddi	Pedro Gonzalez	Briana Milligan	Katherine M Sharkey, MD, PhD
Christelle Anacleto, PhD	Sasikanth Gorantla, MD	Kiwamu Misaki, MD	Paul J Shaw, PhD
Noah Andrews	Timothy Grant	Douglas E Moul, MD, FAASM	Ari Shechter, PhD
J. Todd Arnedt, PhD	Francisco Guerrero Campos	William Noah	Marc Sherkin
Hrayr Attarian	Hui-Ya Han	Mark R Opp, PhD	Lisa Shives
Kelly G Baron, PhD	Al & Margaret Hendri	Sairam Parthasarathy, MD	Rick O Simmons
Argelinda Baroni	Violetta Hlebowicz	Daniel Patterson, PhD	Richard D Simon Jr, MD, FAASM
Fiona Barwick, PhD	Sarah M Honaker, PhD	Michael L Perlis, PhD	Sailaja Sivareddy
Celyne H Bastien, PhD	Linda Hurley	Andrew Peterson	Neil Skjodt
Ruth M Benca, MD, PhD	Conrad Iber, MD	Megan E Petrov, PhD	Carl A Smoot
Edward Bernreuter	Ronald Kass	Bharati Prasad	Nancy Stewart
Ritchie E Brown Dr., Rer., Nat.	Arif Khan	Xavier Preud'homme, MD	Kingman P Strohl, MD, FAASM
Brian E Cade, PhD	Elizabeth B Klerman, MD, PhD	Kristi Pruiksma	W Ron Sutton, MBA
Eileen R Chasens, RN, PhD	Ihori Kobayashi, PhD	Stuart F Quan, MD, FAASM	Naoko Tachibana, MD, PhD
Wesley Chou	Urszula Lamoureux	Shamsuddin Rana	Lowery Thompson
Stephen Chung	Daniel Lee	Samantha M Riedy	Hans P.A. Van Dongen, PhD
Jacob W Clark	Christopher S Leonard, PhD	John D Roehrs, MD, FAASM	Arthur S Walters, MD, FAASM
Drew Dawson, PhD	Daniel Lewin	Ann Romaker	Patrick Weyer
David Dedrick	Jonathan Lipton, MD, PhD	Carol L Rosen, MD	Kenneth Wiesert
Christopher L Drake, PhD	Brendan P Lucey, MD	Nicholas Rosenlicht, MD	Lisa Wolfe
Helene Emsellem	Naeem Lughmani	David B Rye, MD, PhD	Amy R Wolfson, PhD
Judith A Floyd, PhD	Caroline Lustenbeger	Bijan Sadrnoori	Lora Wu
Marcos G Frank, PhD	Janna Mantua, PhD	Clifford B Saper, MD, PhD	James K Wyatt, PhD, FAASM
Walid Freij	Pega Mashayekhi	Kenneth C Sassower, MD	Rajeev Yelamanchili



## FUNDING OUR FUTURE SCIENTISTS CAMPAIGN CORPORATE PARTNERS

*The Sleep Research Society Foundation thanks our corporate partners. This fundraising initiative is paramount to our success. We truly appreciate your support.*

### CHAIRMAN'S CIRCLE



### DIAMOND CIRCLE



### EMERALD CIRCLE



### RUBY CIRCLE



### SAPPHIRE CIRCLE



### JADE CIRCLE



## ANNUAL APPEAL CORPORATE PARTNERS

*Thank you for your support.*



## THE GLOBAL IMPACT OF THE FUNDING OUR FUTURE SCIENTISTS CAMPAIGN

### 500% Increase in Member Giving

The \$427,700 in pledges from SRS members represents nearly a 500% increase in historic annual support – increasing from \$15,000 to \$90,000.



### 12 of 15 Companies Are First-Time Supporters

Of the 15 corporate partners, 12 are first-time supporters of the SRSF. These first-time partners accounted for \$1.9M in corporate support.

### Projected Potential - \$2.5M to \$35M

Based on historic returns, the \$2.5M provided to SRSF early-career awardees could result in \$35M in funding for sleep and circadian research.



### Jump-Started 37 Careers

The SRSF provided full financial support to 20 and assisted with securing funding for another 10 early-career investigators to attend the Advances in Sleep and Circadian Sciences conference in February of 2019. Additionally, 2 Mentor/Mentee Awards were granted to trainees to provide face-to-face opportunities with a mentor within their chosen field of interest. The SRSF was pleased to award 5 travel grants to early-career investigators to attend the Young Investigators Research Forum in April of 2019.

## 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.*

## PAST CAREER DEVELOPMENT AWARDS

Since 2008, the Sleep Research Society Foundation has worked tirelessly to widen the reach of our support for early stage career investigators. Below are the researchers that have been funded since this award program's inception.

<i>Years</i>	<i>Name</i>	<i>Institution</i>	<i>Project Title</i>
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	 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

<i>Years</i>	<i>Name</i>	<i>Institution</i>	<i>Project Title</i>
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	 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	 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



# 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](https://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!**



## 2018-2019 SRSF BOARD OF DIRECTORS

Kathryn J. Reid, PhD—President  
*Northwestern University*

H. Craig Heller, PhD  
*Stanford University*

Sara J. Aton, PhD—Secretary/Treasurer  
*University of Michigan*

Kristen L. Knutson, PhD  
*Northwestern University*

Daniel J. Buysse, MD  
*University of Pittsburgh School of Medicine*

David P. White, MD  
*Brigham and Women's Hospital, Harvard Medical School*

Sean P.A. Drummond, PhD  
*Monash University*

Kenneth P. Wright Jr., PhD  
*University of Colorado Boulder*

Andrew D. Krystal, MD  
*University of California San Francisco*

Olga Galli —Trainee Member-at-Large  
*University of Pennsylvania*

Julie Carrier, PhD  
*University of Montreal*

Namni Goel, PhD  
*University of Pennsylvania*

## STAFF

John A. Noel—*Executive Director*

Christine A. Davis—*Development Manager*

Kaitlan M. Willis—*Coordinator*



Sleep  
Research  
Society  
Foundation

*Supporting Sleep and Circadian Research*