



ANNUAL REPORT OF THE
**SLEEP RESEARCH SOCIETY
FOUNDATION**

Supporting & Advancing Sleep & Circadian Research



Sleep
Research
Society
Foundation

A MESSAGE FROM THE SRSF PRESIDENT

2014–2015 has been a busy and productive year for the Foundation, and we are very pleased to welcome four new early career stage awardees to the ranks of sleep and circadian scientists who have received SRSF awards to help them launch their careers. These foundation awards foster the development of independence. For many recipients, an early investigator award is the start of a grant-winning track record, an honor that offers a competitive edge, moving closer to their first large research project grant. It is an exciting time in their career and we take great pride in helping to promote their success!



Janet M. Mullington, PhD
President, Sleep Research Society Foundation

The Foundation is grateful to the many individual members who contribute to the fund, to the SRS for its support, and to the industry partners without whom these awards and trainee enrichment events would not be possible. It is a transformative time for the field of sleep and circadian research, a scientific domain that is still growing and presents so much potential. We have an opportunity to foster a strong pipeline of investigators to meet the newest challenges we face. We are pleased to share in the excitement of uncovering the secrets of healthy sleep and the consequences of not having it.



Sleep
Research
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The Sleep Research Society Foundation (SRSF) provides support for growth and development in the field of sleep 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 \$1.1 million in support for the research of 38 early stage scientific investigators. The SRSF has helped investigators obtain NIH and other government funding through research supported by SRSF grants.

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.

SRSF-INDUSTRY PARTNERED EARLY STAGE CAREER DEVELOPMENT RESEARCH AWARDS

The SRS has partnered with industry in efforts to widen the reach of our Foundation support for early Career Investigators. In 2008–2010, the Foundation was able to provide a competitive research grant to Dr. Tulina, of the University of Pennsylvania, and in 2010, through a generous contribution from Sanofi-Aventis, the foundation gave a competitive research award to Dr. Monika Haack.



- Natalia Tulina, PhD, University of Pennsylvania,
Function of sleep in the regulation of stem cell activity.



- Monika Haack, PhD, Beth Israel Deaconess Medical Centre & Harvard Medical School, *Does sleep maintenance insomnia lead to stronger activation of stress response systems than sleep onset insomnia?*

The SRS has partnered with industry in efforts to widen the reach of our Foundation support for early Career Investigators. In 2013, through a very generous donation from Jazz Pharmaceuticals, we were able to award the following 3 out of 27 competitively reviewed research grants.



Jazz Pharmaceuticals®

- Joseph Dzierzewski, PhD, University of California, Los Angeles, *Long-term clinical outcome of hypersomnia in at-risk older adults.*
- Jimmy Fraigne, PhD, University of Toronto, *Optogenetic probing of narcolepsy/cataplexy dopamine circuitry.*
- See Wan Tham, PhD, Seattle Children's Hospital, *Sleep-wake disturbances and pain responsivity in adolescents.*

Projects funded in 2013 are wrapping up or have been very recently completed. We are pleased to share that these early stage investigators, who received support from Jazz, will be presenting some of their research results from these or other projects, at the APSS 2015 meeting in Seattle. These individuals have also been invited to showcase their work at the SRS opening event at that meeting, the Data Blitz, on Sunday evening, June 7, 2015.



Joseph Dzierzewski, PhD



Jimmy Fraigne, PhD



See Wan Tham, PhD

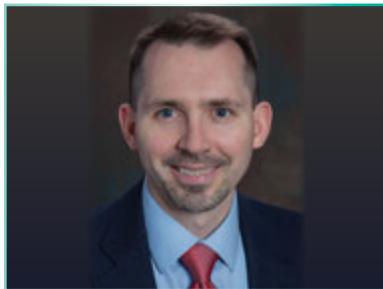
2014-15 SRSF EARLY STAGE CAREER RESEARCH AWARDS

In 2014, the Sleep Research Society Foundation was pleased to partner with industry stakeholders to offer competitive research grants for early career investigators to enable them to launch their research careers. The SRSF received generous contributions from Jazz Pharmaceuticals, Merck, Sleep Research Society individual member contributions, and the Sleep Research Society. Together we have pledged, and are providing research support to promising early career investigators engaged in sleep and circadian rhythms research.

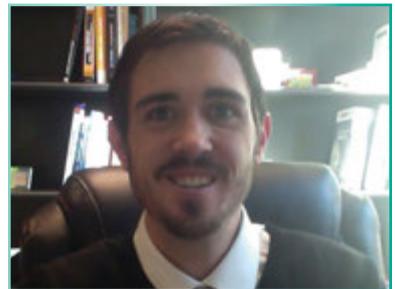
The SRSF received 43 applications for these awards. Over a 4 month period, the applications were reviewed by a committee of 24 established sleep and circadian research experts. These professionals evaluated and scored each of the applications based on the following criteria: potential for the applicant to become an independent investigator in sleep research, quality and innovation of the proposed research and appropriateness of budget, the training that the individual would be receiving and the mentor's commitment to the overall career development of the applicant. While all 43 proposals were of high quality, the following applications were felt to be outstanding.



Sara Briggs, PhD



Jon T. Willie, MD, PhD



Michael Scullin, PhD



- Sara Biggs, PhD, Monash University, *Identifying pathways for new treatment strategies for children with primary snoring.*
- Jon T. Willie, MD, PhD, Emory University, *Reflex and murine cataplexy: proof of concept for novel therapy for narcolepsy type 1.*
- Michael Scullin, PhD, Baylor University, *Slow-wave sleep and prospective memory consolidation in aging adults.*



- Josiane Broussard, PhD, University of Colorado Boulder, *Influence of physical activity status on the effects of insufficient sleep on metabolism.*



Josiane Broussard, PhD

The Sleep Research Society's Executive Committee and Board of Directors approved the committee's recommendation that the above mentioned receive funding for their proposals. The SRSF would like to thank the SRS Research Committee for their work in reviewing the applications for these competitive awards.

The SRSF wishes to thank Jazz Pharmaceuticals for their generosity in funding the Early Career Development Research Award for 3 SRS members, Drs. Biggs, Willie and Scullin. The SRSF looks forward to continue to work with Jazz in the future, to partner in fostering the next generation of sleep researchers. We are confident that these early career stage investigators will move our understanding of sleep and sleepiness in diseases such as Narcolepsy-Cataplexy, forward over the next years. We are proud to partner with Jazz Pharmaceuticals to help foster these scientific careers.

The SRSF also wishes to thank Merck, Inc., for their generosity in funding the Early Career Development Research Award for Dr. Broussard, an SRS member and early career investigator. The SRS and SRSF appreciates greatly the role Merck is playing in helping to build the next generation of sleep-circadian researchers. The SRSF looks forward to continue to work with Merck in the future, to continue to partner in developing the next generation of sleep researchers.

SRS TRAINEE DAY EVENTS, 2014

In addition to the Early Career Investigator Awards, the SRSF is very proud to report that, thanks to generous contributions from Jazz Pharmaceuticals and from the SRS, we were able to hold a half-day long grant writing workshop for over 50 participants, an evening network reception, a Trainee Data Blitz, and an early stage investigator career fair.

Our 2014 SRS Trainee Day activities provided trainees with the opportunity to meet leaders of the SRS, mentors in the field and make connections for potential internship opportunities, research lab work and more. Thirty-two different educational scientific workshops were delivered to approximately 300 SRS trainee members.

J CHRISTIAN GILLIN, MD, RESEARCH GRANT

The Sleep Research Society Foundation J. Christian Gillin, MD, Research Grant supports early career investigators in sleep research with the purpose of collecting pilot data to be used for future grant applications. The grant is intended for junior faculty investigators who do not already have substantial independent research funding.

The SRSF has funded 29 Gillen awards since 2005, and the recipients of those awards are listed below. These awardees are publishing their sleep and circadian research findings and >60% of the awardees in US institutions have gone on to receive NIH research grants.

Year	Gillen Grant Recipient	Institution	Project Title
2005	Dmitry Gerashchenko	SRI International	Identification of neurons in the lateral hypothalamus playing critical role in arousal
2005	Lisa Meltzer	Children's Hospital of Philadelphia	Sleep patterns in children with autism and their caregivers
2005	Natalia Suntsova	UCLA/VA/Sepulveda Research Corporation	Absence epilepsy and the hypothalamic/basal forebrain sleep-promoting and arousal systems
2005	Kenneth P. Wright	University of Colorado	The metabolic cost of extended wakefulness
2006	Fernando Louzada	Federal University of Parana, Brazil	Home electric lighting effects on circadian rhythms
2006	Camellia Clark	University of California San Diego	Sleep deprivation, polysomnography and functional MRI in minor depression
2006	Jonathan Wisor	SRI International	Gamma-hydroxybutyrate for narcolepsy: role of the locus coeruleus
2006	Jonathan Emens	Oregon Health & Science University	Determination of intrinsic circadian period in blind individuals with non-entrained circadian rhythm sleep disorders
2007	Christoph Nissen	University of Freiburg (Germany) Medical Center	Sleep-related neuroplasticity in depression
2007	Robyn Stremler	University of Toronto	Sleep disturbances in hospitalized children
2007	Xiangdong Tang	Eastern Virginia Medical School	Baseline sleep and effects of social stress on sleep in tree shrews (<i>Tupaia belangeri</i>)

<i>Year</i>	<i>Gillen Grant Recipient</i>	<i>Institution</i>	<i>Project Title</i>
2008	Nancy Johnston	Southern Illinois University	Sleep fragmentation, the metabolic syndrome, and diabetes in mice
2008	Anna Kalinchuk	Harvard (BVARI)	Nitric oxide-mediated mechanisms of sleep regulation: spatial and temporal aspects
2008	Mirjam Munch	Harvard (BWH)	Circadian light effects and fMRI - a pilot study
2008	Yuka Sasaki	Harvard Medical School/Mass General	MRI-constrained spectral imaging of spontaneous neuromagnetic activity during sleep in human cortex associated with visual learning
2009	Jun Cai, MD, PhD	University of Louisville, Kosair Children's Hospital	Vulnerability of defective myelin to intermittent hypoxia during sleep
2009	Giancarlo Vannini, MD	University of Michigan	Modulation of sleep and wakefulness by extrasynaptic γ-aminobutyric acid (GABA) receptors
2010	Stephanie J. Crowley, PhD	Rush University Medical Center	A light phase response curve to treat delayed sleep in adolescents
2010	Katherine Sharkey, MD, PhD	Brown University, EP Bradley Sleep Lab	Sleep and circadian phase disruption in postpartum depression
2011	Joanna MacLean, MD, PhD	University of Alberta	A follow-up study of infants at high risk of sleep disordered breathing
2011	Subhabrata Sanyal, PhD	Emory University	Genetic modeling of restless legs syndrome in Drosophila
2011	Christi S. Ulmer, PhD	Durham VA Medical Center, Duke University	Is reduced blood pressure a consequence of improved sleep following a behavioral sleep intervention for adults with PTSD?
2012	Jamie Cvengros, PhD	Rush University Medical Center	Changes in eating behavior following initiation of CPAP
2012	Michelle Garrison, PhD	Seattle Children's Hospital Foundation	Sleep health in preschoolers (SHIP)
2012	Olga Dergacheva, PhD	George Washington University	Chronic intermittent hypoxia alters a REM sleep pathway to parasympathetic cardiac neurons in the brainstem
2012	Sudha Arunachalam, PhD	Boston University	Effects of sleep on word learning in preschoolers
2013	Thien Thanh Dang-Vu, MD, PhD	Concordia University	Pathophysiology of idiopathic hypersomnia: a multimodal neuroimaging study
2013	Aric Prather, PhD	University of California, San Francisco	The effects of race-based social stress on objectively measured sleep and nocturnal autonomic functioning
2013	Irma Rukhadze, PhD	Harvard Medical School	The role of medullary A1/C1 neurons in control of state-dependent activity of genioglossus muscle in behaving mice



