Since I began my term as president of the American Sleep Medicine Foundation (ASMF) last year, I have been honored to guide the Foundation’s continued dedication to supporting career development of junior investigators and studies that improve care for patients with sleep disorders.

In the ever-changing field of sleep medicine, I am deeply grateful to the ASMF board of directors for their leadership and direction as we craft strategies for enhancing the science that supports the clinical practice of sleep medicine.

The ASMF continues to pursue our mission of supporting the entry of young physicians and scientists into sleep research and academic sleep medicine, funding strategic research projects aligned with the needs of clinicians who care for patients with sleep disorders, educating the public about the importance of sleep and the need to treat sleep disorders, and providing humanitarian aid to disadvantaged individuals with sleep disorders.

The Foundation is a leader when it comes to supporting sleep research and education; we have invested in the future of sleep medicine by distributing $9 million in awards since 2000. These awards have supported numerous junior investigators who have launched successful careers and have helped to advance knowledge in critical areas of sleep medicine.

In an effort to expand the field of sleep medicine, the Foundation has dispersed more than 50 career development awards worth a total of $3 million since 2008. We are
focused on addressing the unique needs of sleep medicine physicians who wish to pursue research as part of their careers by providing research funds specifically for early-career sleep medicine physicians. Within this report, we share two of our many success stories by highlighting the work of Renée A. Shellhaas, MD, MS, from the University of Michigan’s C.S. Mott Children’s Hospital and Daniel Combs, MD, from the University of Arizona.

In 2016 the ASMF Board of Directors chose to focus on highly specific domains of research, recognizing the changing healthcare landscape and the need for research to evaluate the potential benefits of telemedicine. We therefore issued a request for applications soliciting strategic research award (SRA) proposals that focused on telehealth/telemedicine using the AASM SleepTM platform. We will be supporting several projects in this area that are highly relevant to the practice of sleep medicine.

Our other recent request for applications focused on studying the value of board-certified sleep medicine physicians in providing care to patients with sleep disorders, reflecting the need to establish the benefits of evaluation and treatment of sleep disorders by providers with specialized training in sleep. Moving forward, we will continue to seek out applications for select topics that address the needs of patients with sleep disorders and the providers who treat them.

Our Focused Projects Awards program continues to support a diverse range of research topics, plus humanitarian and educational projects. Many of these awards are used by junior investigators to gather pilot data or to launch their scientific careers.

We have funded topics across multiple areas, for example, “Development of a targeted intervention for insufficient sleep among typically-developing adolescents” by Jessica Levenson, PhD from the University of Pittsburgh, and “Interrater reliability of in-person vs. telemedicine evaluation for obstructive sleep apnea” by Michael Yurcheshen, MD from the University of Rochester.

Finally, we continued the ASMF “Sleep Story” High School Video Contest to raise awareness among teens about the importance of sleep. This year we received 33 videos, of which 3 were recognized with a cash award.

The ASMF is dedicated to using our funds to enhance the career trajectories of junior investigators and to support research that is directly relevant to patient care. This important work would not be possible without the generous contribution provided to the ASMF by the AASM. I also want to thank the individual members of the AASM who volunteer their time to chair our review groups and review applications, and to those who support the foundation with monetary contributions. As a contributor myself, I urge all AASM members to make a contribution to the ASMF so we can continue to support our trainees and junior colleagues and to improve care quality for our patients. If you wish to donate, please visit our website, www.discoversleep.org and click on the “donate now” link.

The past year has been defined by countless advances in sleep science, technology, and clinical practice. I look forward to another momentous year in sleep medicine and sleep research.

Sincerely,

Jennifer L. Martin, PhD, CBSM, FAASM

2016 – 2017 ASMF Board of Directors

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ASMF Vision

The vision of the American Sleep Medicine Foundation (ASMF) is to enhance sleep health for all through research, education and humanitarian aid.

Mission

The American Sleep Medicine Foundation (ASMF) will be the leading foundation promoting sleep research and education by:

• Supporting the entry of young physicians and scientists into sleep research and academic sleep medicine
• Providing humanitarian aid to disadvantaged individuals with sleep disorders
• Funding strategic research
• Supporting research and other initiatives that educate the public about sleep, sleep disorders and the individual and public health consequences of inadequate or disturbed sleep

The American Sleep Medicine Foundation (ASMF) is a not-for-profit 501(c)(3) charitable and scientific organization that was established in 1998 by the American Academy of Sleep Medicine (AASM).

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The goals of the Strategic Research Award program are to foster health services research and patient-oriented research in sleep medicine, improve outcomes, and demonstrate value.

The Physician Scientist Training Award supports research training for physicians who wish to pursue careers as physician scientists in sleep medicine.
The Bridge to Success Award provides “bridge funding” to mid-level and senior investigators in sleep and biological rhythms who have re-applied for research support.

Bridge to Success
(Up to $75,000)

Makoto Kawai, MD
Stanford University School of Medicine
Cortical Activation and Oxygenation during Sleep and Cognition: Window to Cognitive Impairment and Neurodegeneration in Aging

Ina Djonlogic, MD
Beth Israel Deaconess Medical Center
Sleep Disturbances in Preclinical Alzheimer Disease

The American Board of Sleep Medicine (ABSM) Junior Faculty Research Award assists new faculty in the development of a career in academic sleep medicine.

ABSM Junior Faculty Research Award
(Up to $50,000)

Sabra Abbott, MD, PhD
Northwestern University
Evaluating the Circadian Response to Light in Delayed Sleep-Wake Phase Disorder

Diane Lim, MD
University of Pennsylvania
Effects of Cyclical Intermittent Hypoxia on Local (primary breast) and Distal (metastases to the brain) Tumors
Focused Projects can involve outcomes, quality metrics or other aspects of health services research and may include small pilot research, humanitarian or educational projects.

Focused Projects Award
(Up to $20,000)

Karen Bonuck, PhD
Albert Einstein College of Medicine
Expanding Surveillance of Sleep Problems and Risk Factors for Speech-Language Impairment in Young Children

Sejal Jain, MD
University of Arizona
Improving Screening for Sleep Disorders in Children with Epilepsy among Pediatric Providers

Younghoon Kwon, MD
University of Virginia
Evaluation of a Novel Physiological Marker in Sleep Apnea

Jessica Levenson, PhD
University of Pittsburgh
Development of a Targeted Intervention for Insufficient Sleep among Typically-Developing Adolescents

Susan Redline, MD
Brigham and Women’s Hospital
Developing Educational Resources and Increasing Sustainable Patient Engagement with Electronic Health Platforms for Sleep Apnea: A Patient Based Participatory Research Study

Geoffrey Rulong, MD
Cincinnati Children’s Hospital
Custom 3-D Printed Non-invasive Ventilation Mask for Children with OSA

Michael Yurcheshen, MD
University of Rochester
Interrater Reliability of In-Person vs. Telemedicine Evaluation for Obstructive Sleep Apnea
The American Sleep Medicine Foundation (ASMF) invited teens to participate in the 2016 ASMF “Sleep Story” High School Video Contest, which gives students an opportunity to help shine a light on the effects of sleep problems. The contest is open to high school students in grades 9-12 in the U.S.

The 2016 contest was entered by 33 students, who competed from across the country for the grand prize of $1,000, second-place prize of $500, and People’s Choice prize of $250. Each prize is split evenly between the winning student and his or her school.

2016 Winners

1st Place
Andrew Zwijack
Hickory Hills, Illinois
Argo Community High School
11th grade
“Inside a Sleep-Deprived Mind”
2nd Place
Juan Lopez
Franklin, Tennessee
Independence High School
12th grade
“Sleep Deprivation”

People’s Choice
Erin Cummins
Natick, Massachusetts
Natick High School
9th grade
“Sleep Documentary”
AASM member Renée A. Shellhaas, MD, MS, chose to study the impacts of sleep physiology on newborn infants' health and development after learning just how relevant complications were for both disabled and otherwise healthy children. She was surprised to learn that while sleep-disordered breathing (SDB) is pervasive among children with myelomeningocele, the most serious form of spina bifida, it is uncommon to assess neonatal sleep in current clinical practice. For that reason, she applied for funding from ASMF to expand the scope of her work to include newborns with myelomeningocele since this patient population is at risk for abnormal sleep physiology and for neurodevelopmental disability. Her research program is centered on neuromonitoring for infants who require neonatal intensive care. Her work to date suggests that sleep measures reflect newborn brain functional integrity.

Her project, “Sleep analysis in neonates with spinal dysraphism,” received a 2016 ASMF Strategic Research Award. The goal of the project is to define the prevalence and severity of SDB in newborns with myelomeningocele and determine clinical risk factors.

“To date, no other study has systematically evaluated sleep physiology in neonates with myelomeningocele,” said Dr. Shellhaas, who is an associate professor of pediatric neurology at the University of Michigan in Ann Arbor, Michigan. “We anticipate that the preliminary data generated through this pilot study will provide the rationale for a larger, longitudinal study and eventually to interventions designed to optimize sleep in order to improve neurodevelopmental outcomes for this patient population.”

Evaluation of sleep in neonates who require intensive care is an emerging field, and Dr. Shellhaas expects that it will have a major impact on health and quality of life for affected children and their families. Since abnormal sleep is potentially treatable, the diagnosis of SDB in at-risk newborn infants could have a substantial, long-term impact on medical and neurodevelopmental outcomes.

“We hypothesized that many neonates with myelomeningocele have clinically significant sleep-disordered breathing,” Dr. Shellhaas said. “The data we collected will address key gaps in knowledge, and we anticipate that they will ultimately lay the foundation for a change in clinical practice.”

Dr. Shellhaas will be presenting the results of her ASMF-supported research at the annual meeting of the Pediatric Academic Societies and at Sleep 2017. Currently Dr. Shellhaas is researching the relationships between neonatal sleep physiology, measured with EEG, polysomnography, and near-infrared spectroscopy (NIRS), and neonatal neurologic status as well as long-term neurodevelopmental outcomes.
AASM member Daniel Combs, MD, entered medical school with interest in neurocognitive effects of chronic disease. During a sleep medicine rotation in his pediatric residency at University of Arizona College of Medicine, Dr. Combs realized that sleep disorders, particularly sleep apnea, play a large role in neurocognitive function and behavior in children. This drove his interest in becoming a sleep medicine physician.

Following his residency, Dr. Combs completed a sleep medicine fellowship with the intention to become an academic sleep clinician scientist. After working closely with his mentor, Dr. Sai Parthasarathy, he chose to focus his research on neurocognitive and quality of life (QOL) effects of sleep apnea in children with congenital heart disease (CHD).

“Congenital heart disease is the most common congenital malformation, and children who require surgery for CHD are known to be at risk for neurocognitive impairment,” said Dr. Combs. “Given the close relationship between cardiovascular health and sleep-disordered breathing (SDB), this seemed to be a natural population to study.”

His project, “Neurocognitive impairment in children with congenital heart disease and sleep-disordered breathing,” received a 2016 ABSM Junior Faculty Research Award. The goal of the project is to determine how SDB contributes to the observed neurocognitive impairment and health-related QOL in children with CHD, as well as to define factors that influence patient and caregiver preferences for treatment.

Results so far suggest that the presence of SDB is associated with a 15 point lower IQ in children with CHD, and Dr. Combs expects the research could demonstrate a treatable cause of neurocognitive impairment in children with CHD.

“Neurocognitive impairment is common in children with CHD, and directly affects their school performance, as well as their future development and success in adulthood. Parents of children with CHD recognize this, and are eager to do whatever they can to improve their child’s odds of success,” said Dr. Combs.

With a research letter about preliminary research results currently under review, Dr. Combs is also preparing a brief article for submission to the Journal of Clinical Sleep Medicine (JCSM) on the management of SDB in adults with complex congenital heart disease.

Dr. Combs serves as assistant professor of pediatrics at University of Arizona’s division of Pediatric Pulmonary, Allergy, and Sleep Medicine. He is currently assisting with the expansion of the sleep laboratory to include pediatric polysomnography at the University of Arizona Center for Sleep Disorders.

“The ASMF provides an invaluable chance for young researchers such as myself to obtain funding and demonstrate research success.”

– Dr. Combs
2017 Awards Program

Focused Projects Award
*Up to $20,000 for 1 year*

Focused Projects proposals can involve outcomes, quality metrics or other aspects of health services research but are not limited to these topics. Small pilot research projects, humanitarian projects, or educational projects also may be considered.

ABSM Jr. Faculty Award
*Up to $75,000 over 2 years*

Funded primarily by an endowment from the American Board of Sleep Medicine (ABSM), this award assists new faculty in the development of a career in academic sleep medicine. Physicians who are certified in sleep medicine and are within 10 years post sleep medicine fellowship and hold a faculty appointment are eligible to apply.

Strategic Research Award
*Up to $250,000 over 3 years or $100,000 over 2 years*

New this year was a focused request for applications (RFA) specifically soliciting proposals to study the value of board-certified sleep medicine physicians in providing care to patients with sleep disorders. Another RFA called for proposals to study the role of telehealth/telemedicine, using the AASM SleepTM platform, in the evaluation and management of patients with sleep disorders.

Physician Scientist Training Award
*$75,000 for 1 year*

Through this award the ASMF seeks to provide research training for physicians who wish to pursue careers as physician scientists in sleep medicine.

Bridge to Success Award for Early Career Development
*$75,000 for 1 year*

This award provides “bridge funding” to promising sleep scientists who have applied for an entry level career development award such as a K grant from the NIH, a CDA-1 from the VA, or equivalent, but whose applications are unlikely to be within the funding cutoff. It gives them additional time and resources to collect further data and respond to the funding institution’s critique, thereby increasing the chances of a successful grant resubmission.

Bridge to Success Award for Mid-Career/Senior Investigators
*$75,000 for 1 year*

This award assists established sleep investigators who have been independently supported by the NIH or other government research grants for at least five years, but whose current grant proposals are unlikely to be funded. It provides support for one year of “bridge funding” to help an independent investigator stay in the field of sleep research while reapplying for external funding.

High School Video Contest
*Prizes of $1,000, $500, and $250*

The theme of the 2017 High School Video Contest, “Sleep Recharges You,” is focused on motivating teens to prioritize the importance of sleep in their lives, and it supports the public awareness campaign of the National Healthy Sleep Awareness Project.
Since it was established by the American Academy of Sleep Medicine (AASM) in 1998, the American Sleep Medicine Foundation (ASMF) has provided more than $9 million in funding to support 155 sleep research projects. The ASMF relies almost exclusively on direct funding from the AASM, which made a 5-year, $10 million commitment in 2014 to fund an expansion of the ASMF awards program. In 2016 the ASMF received $35,811 in member and public donations. However, support from the AASM enabled the Foundation to fund 24 awards totaling $1.78 million across five distinct award categories.

### 2016 ASMF Awards

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The ASMF is committed to minimizing its expenses in order to maximize the amount of money available for awards. In 2016 the expenses for the awards program composed 93% of overall ASMF expenditures. However, because the AASM provides the funding for all of the Foundation’s administrative costs, every dollar donated to the ASMF directly supports its awards program.
2016 Donors

The American Sleep Medicine Foundation is grateful for the generous support of the following donors, who made contributions to the foundation between Jan. 1 and Dec. 31, 2016.

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($10,000+)
American Academy of Sleep Medicine

EMERALD
($5,000+)
American Academy of Dental Sleep Medicine

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($1,000+)
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Last year the ASMF received contributions from 255 AASM members, other concerned individuals, and sleep disorder centers across the country. Join them and support the ASMF by making a donation today!

Because the American Academy of Sleep Medicine provides the funding for all of the ASMF’s administrative costs, every dollar you donate directly supports the ASMF award programs. The ASMF is a not-for-profit 501(c)(3) charitable and scientific organization. Your contribution should be fully tax deductible as allowed by law.

The easiest way to give is to visit www.discoversleep.org, where you can make an online contribution or download a donation form. You also can make a donation over the phone by calling 630-737-9700 or by sending an email to info@discoversleep.org.

Thank you for helping to enhance sleep health for all by giving generously to the ASMF.