NATIONAL ACADEMIES Sciences Engineering Medicine

Exploring Sleep Disturbance in Central Nervous System Disorders
November 2 – 3, 2022

Speaker Biographies

Anita Bajaj, MD, MPH, is a Child, Adolescent and Adult Psychiatrist who has been working as

a Medical Officer at the FDA for the past 5 years. She received her undergraduate degree from Georgetown University, her MPH from Columbia University, her MD from SUNY Downstate and completed her training in adult Psychiatry and fellowship in Child and Adolescent Psychiatry at UMDNJ/Robert Wood Johnson in New Brunswick, New Jersey. She worked in private practice Psychiatry for 9 years treating sleep disorders in addiction to various other Psychiatric disorders including mood and anxiety disorders, ADHD, Autism and several others. She then joined the FDA in 2018, working at the Center for Devices and Radiologic Health (CDRH), and continues to provide clinical care as Adjunct Faculty at Johns Hopkins University.

Marishka Brown, PhD, is Director of the National Center on Sleep Disorder Research. She

leads the science of sleep and chronobiology into innovative discoveries that improve health. NCSDR, located within the National Heart, Lung, and Blood Institute (NHLBI), is the nexus of NIH sleep and circadian research activities for a network that includes professional associations, public stakeholders, and federal agencies. Dr. Brown's leadership and experience in partnership building helps sustain and expand this network, bringing the benefits of NIH's scientific research into medicine and public health. Dr. Brown started her NIH career as an American Association for the Advancement of Science (AAAS) Science and Technology Policy fellow in the Office of Strategic Coordination, located within the NIH Office of the Director. Brown earned her Ph.D. in Pharmaceutical Sciences, with an emphasis in Pharmacology and Neuroscience, from the University of Maryland-Baltimore, and afterwards pursued a fellowship at the University of Pennsylvania in the Center for Sleep and

Circadian Neurobiology, studying the role of the unfolded protein response in age-related sleep changes.

Ashura (Shu) Buckley, MD, is a pediatric neurologist and sleep medicine research physician

at the Intramural Research Program at the National Institute of Mental Health. She received her undergraduate degree from Harvard University, her M.D. from SUNY, Stony Brook and completed her training in child neurology at Massachusetts General Hospital. She then completed a fellowship in Clinical Trials at the National Institute of Mental Health and a Clinical Fellowship in Sleep Medicine at New York Sleep Institute at NYU. She is particularly interested in the role of sleep, both normal and abnormal, in shaping the developing brain, with a focus on abnormal sleep neurophysiology in severe forms of autism, schizophrenia, depression and other serious neurodevelopmental and mental disorders. The ultimate goal of her research is to work collaboratively across disciplines to elucidate underlying aberrant sleep-mediated neurotransmission that might offer potential therapeutic targets. In 2016, she was named the Director of the newly created Sleep and Neurodevelopment Service at the Clinical Center, NIMH. While providing clinical sleep disorder diagnoses for adults and children for all Institute Centers, she has continued to develop a Sleep and Neurodevelopment research platform that includes the intramural NIH Clinical Center as an integral collaborative hub for extramural sites with pediatric sleep expertise. This Sleep and Neurodevelopmental Consortium aims to streamline the acquisition of sleep metrics during early development for the express purpose of accelerating the identification of sleep-mediated predictive biomarkers related to behavioral and mental health. This field is in its infancy but growing quickly. Current research and future endeavors focus on sleep-unique biomarker discovery with an emphasis on rapid translation for therapeutic relief in neuropsychiatry and neurodevelopmental disorders.

Luis de Lecea, PhD, obtained his PhD at the University of Barcelona. He started his research

career at The Scripps Research Institute (La Jolla, CA) where he identified several neuropeptides with key functions in cortical excitability and sleep regulation and brain reward function. In 2006 he moved to Stanford and pioneered optogenetic methods in vivo. During the last decade, his group has demonstrated a causal role of Hcrt, noradrenergic, cholinergic and

dopaminergic neurons on wake stability in mice. Dr. de Lecea's work accumulates more than 180 manuscripts that have been cited over 30,000 times. He has received numerous awards including ACNP Integrative neuroscience award, NARSAD Distinguished Investigator and Sleep Research Society Outstanding Achievement Award, Senior Fulbright Scholarship, among others. Dr. de Lecea has served on many national and international committees including the Board of Scientific Counselors for NIDA, the Klarman Family Foundation and the BrainMind Foundation.

Karla Dzienkowski, RN, BSN accepted the position of executive director in January 2014.

Since then she has made a huge impact on the organization. Karla first learned about RLS in her dual roles as a mother and registered nurse when her daughter, then 11 1/2 years old, began to experience symptoms that doctors could not explain. Karla crossed the country looking for answers before finally finding a knowledgeable doctor, and shortly after, the RLS Foundation. Eager for answers, Karla joined the Foundation's Board of Directors in 2004 and served through 2009. As a board member, she encouraged pediatric RLS research, along with programs to increase awareness and education of RLS in the medical and school communities. Karla believes that much work has yet to be done in disseminating information about RLS to the public and the medical community, and that much more research into its cause and treatment is needed. Karla drives the mission of the Foundation with her leadership, and she is passionate about promoting research for better treatments and a cure.

Ying-Hui Fu, PhD, studies human sleep behavior, including sleep schedule and duration. Her

lab is focused on working toward understanding how human sleep is regulated at the molecular and circuitry level with the goal of helping everyone reach healthy longevity through optimal sleep.

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Erik Herzog, PhD, studies the molecules, cells and circuits that underlie daily rhythms in physiology and behavior. With support from agencies including the National Institutes of Health and the March of Dimes, his lab has published over 100 peer-reviewed articles. His laboratory has discovered mechanisms underlying how circadian clocks regulate physiology, behavior and health. Current projects include: Test the role of circadian rhythms in treating glioblastoma and in preventing preterm birth in clinical trials, identify the neural code used by neurons to release neuropeptides that synchronize circadian cells, test the role of maternal and fetal circadian tissues in timing birth, establish the ionic basis for daily rhythms in neuronal excitability, and map the connections and cell types that underlie daily rhythms as a function of age, sex and seasons. Dr. Herzog has dedicated himself to diversity, equity and inclusion efforts through service at the University, in St. Louis, and through scientific and medical Societies. He has been recognized with multiple teaching, mentoring and service awards by the neuroscience and sleep and circadian communities.

John Hogenesch, Ph.D., is a Professor of Pediatrics and the Thomas F. Boat Chair in the Divisions of Human Genetics, Immunobiology, and Pulmonary Medicine at Cincinnati Children's Medical Center. Dr. Hogenesch discovered Bmal1, the master regulator of the mammalian clock, but also its paralog Bmal2, its partner Npas2, and the positive loop of the clock (Hogenesch et al., JBC, 1997; Hogenesch et al., PNAS, 1998; Hogenesch et al., J. Neurosci, 2000). Later, his lab characterized Rora/Rorb/Roc as key regulators of Bmal1 and circadian function (Sato et al., Neuron, 2004), discovered Chrono as a non-canonical repressor of Bmal1/Clock (Anafi et al., PLoS Biology, 2014), and Kpnb1 as a required transporter of the PER/CRY complex (Lee et al., Elife, 2015). The Hogenesch lab has led in research into the transcriptional outputs of the clock in animal models and humans (e.g. Panda et al., Cell, 2002, Hughes et al., PLoS Genetics, 2009, Zhang et al., PNAS, 2014; Anafi et al., PNAS, 2017; Ruben et al., Science Translational Medicine, 2018). This work is leading to a wealth of new opportunities in circadian medicine and has spurred community contributions, such as the public databases the Gene Atlas and Gene Wiki, CircaDB, and algorithms, including JTK, PSEA, MetaCycle, and CYCLOPS (Su et al., PNAS, 2004; Huss et al., NAR, 2010; Hughes et al., JBR, 2010; Pizarro et al., NAR, 2013; Zhang et al., JBR, 2014; and

Wu et al., Bioinformatics, 2016; Anafi et al., PNAS, 2017). Before moving to Cincinnati, Dr. Hogenesch was Professor and Vice Chair of Pharmacology at the University of Pennsylvania Perelman School of Medicine. He did his Ph.D. in Neuroscience at Northwestern University. Currently, Dr. Hogenesch is a Penn Fellow, sits or has sat on the Scientific Advisory Boards of Qiagen, Mimetics, Bio-Rad, the Ryan Licht Sang Foundation Medical Committee, and the Gene Ontology (GO) consortium, and is an advisor to several National Institutes of Health, NIDDK, NCI, NHLBI, and the Environmental Protection Agency (EPA).

Morten Grunnet, PhD, is Vice President and Head of Neuroscience at Lundbeck and Honorary

Professor at University of Copenhagen, Denmark. During his studies, post-doctoral tenure at UC and further research career he has published > 150 peer review scientific papers and patents. He was in 2016 named Life Science Entrepreneur of the Year in Denmark. In 2004 Morten joined Neurosearch A/S as Research Scientist and held several positions in Neurosearch until he in 2012 joined H. Lundbeck A/S as Principal Scientist. During his tenure at Lundbeck he has held positions within Research, Chief of Staff in R&D Executive Management Office, Project & Portfolio Management as Global Project Lead, and has concurrently served as a key driver for developing and implementing cross-functional strategic projects across Lundbeck: Starship (defining indication space), Galaxy (redefining entire R&D organization), Constellation (Shaping the project Matrix organization). Morten re-joined Lundbeck's Research organization ultimo 2021 and are now heading the Neuroscience organization as Vice President.

Dayna A. Johnson, PhD, MPH, MSW, MS, is a sleep epidemiologist and Assistant Professor

in the Department of Epidemiology at the Rollins School of Public Health, Emory University in Atlanta GA. She received her doctorate degree in Epidemiologic Science from the University of Michigan and completed a postdoctoral fellowship in Sleep and Circadian Disorders at Harvard Medical School. Her research is aimed at understanding the determinants and health consequences of sleep health disparities by 1) addressing the social and environmental determinants of sleep disorders and insufficient sleep; and 2) investigating the influence of modifiable factors such as sleep disorders and disturbances on

various health outcomes. More specifically, Dr. Johnson's research quantifies the contribution of social, household-level and neighborhood-level factors with objective and well-validated subjective measures of insufficient sleep using data from different epidemiologic cohort studies. She also investigates associations of sleep health and sleep disorders with hypertension, diabetes, metabolic syndrome, and cognition. Dr. Johnson is also exploring how stress reduction interventions can improve sleep and reduce subsequent risk of poor health outcomes.

Andrew Krystal, MD, MS, is the Ray and Dagmar Dolby Distinguished Professor and Vice Chair for Research in the Department of Psychiatry at UCSF. He is also Professor Emeritus of Psychiatry and Behavioral Sciences in the Duke University School of Medicine. He is Director of the Clinical and Translational Sleep Research Laboratory in the Departments of Psychiatry and Neurology at UCSF and Co-Director of the UCSF Sleep Laboratory. He is also Director of the Dolby Family Center for Mood Disorders and the Interventional Psychiatry Program at UCSF. He attended the Massachusetts Institute of Technology where he completed Bachelor's and Master's Degrees in Biomedical Engineering. He earned his doctorate in medicine from Duke University in 1987. He subsequently completed psychiatry residency training at Duke along with fellowships in Clinical Neurophysiology and Clinical Research Methodology. He is Board Certified in Psychiatry, Sleep Medicine, and Clinical Neurophysiology. Dr. Krystal currently serves as Associate Editor of the Journals SLEEP and is a Past President of the Sleep Research Society. He is also served as a Member of the American Board of Internal Medicine Sleep Board Examination Committee. His primary areas of clinical work are sleep disorders and mood disorders. His primary research is related to the development of biomarkers and their application in the development of new treatments for sleep disorders and mood and anxiety spectrum disorders. He has been the principal investigator of numerous clinical trials of medication, device, and psychotherapy interventions for mood and sleep disorders.

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Dara Manoach, PhD, is a Professor of Psychology in the Department of Psychiatry at

Massachusetts General Hospital (MGH) and Harvard Medical School. She is a neuropsychologist who has devoted her career to understanding the neural bases of cognitive deficits in neurodevelopmental disorders, particularly schizophrenia and autism, so that they can be more effectively treated. The goals of her research program are to (i) understand how abnormal sleep physiology contributes to memory deficits and symptoms; (ii) develop sensitive biomarkers of sleep-dependent memory consolidation deficits; and (iii) evaluate targeted treatments. Her lab uses multimodal neuroimaging, intracranial studies, non-invasive brain stimulation, cognitive testing, and polysomnography to meet these goals. She collaborates with both clinical and basic investigators doing complementary work. Her career goals are to mentor the next generation of clinical neuroscientists and to conduct research that provides insights into pathophysiology and leads to interventions that promote the prevention of and recovery from neurodevelopmental disorders. Dr. Manoach received her doctorate from Harvard University in Experimental Psychology, completed a clinical psychology internship at McLean Hospital, and a postdoctoral fellowship in clinical neuropsychology at Beth Israel Hospital of Harvard Medical School. At MGH she directs the Sleep, Cognition and Neuropsychiatry (SCAN) Lab at the Athinoula A. Martinos Center for Biomedical Imaging. http://manoachlab.mgh.harvard.edu/.

Margaret Moline, PhD, is currently an Executive Director, Head of Orexin Platform Clinical

Development, and the International Project Team Lead for both the lemborexant and orexin agonist clinical development programs at Eisai Inc. Specializing in insomnia clinical trials and sleep disorders in women, Dr. Moline has brought five neuroscience New Drug Application submissions to the FDA. Dr. Moline also specializes in Alzheimer's disease clinical trials and served as International Project Team Leader for Aricept from 2005-2011. With Eisai's strong neurology pipeline, including investigational sleep-wake disorders and Alzheimer's disease treatments, Dr. Moline is using her skills to help move science forward in areas about which she is passionate. During her academic career in the Department of Psychiatry at New York-Presbyterian/Weill Cornell Medical College, she conducted research in basic human circadian rhythms, jet lag, premenstrual dysphoric disorder,

and circadian rhythm abnormalities in psychiatric disorders. Dr. Moline is an author on more than 85 peer-reviewed journal articles. She holds a PhD in Physiology from Harvard University and an undergraduate degree from Cornell University, also in Physiology.

Erik Musiek, M.D., Ph.D., is the Charlotte & Paul Hagemann Professor of Neurology at

Washington University School of Medicine in St. Louis and Co-Director of the Center On Biological Rhythms And Sleep (COBRAS). His lab focuses on how the circadian clock regulates neuronal and glial function, and examines mechanisms linking clock dysfunction to Alzheimer's Disease and other neurodegenerative conditions in mouse models and humans. He is also an investigator in the Knight Alzheimer's Disease Research Center at WashU. Clinically, sees patients with memory disorders in the Memory Diagnostic Clinic, and is an attending Neurologist at Barnes Jewish Hospital. He completed MD/PhD training at Vanderbilt University in 2007, and neurology residency at University of Pennsylvania in 2011. While at Penn he began his study of circadian clocks in the lab of Dr. Garret FitzGerald, and won the Zeritsky Resident Research Award. He then pursued a fellowship in dementia at Washington University in 2013 with postdoctoral training in the lab of Dr. David Holtzman. He established his own lab at WashU in 2014, where he won the Kopolow Award for Aging Research, and was elected to the American Society for Clinical Investigation in 2020.

Matthew Pava, PhD, joined DARPA as a program manager in March 2021. He is interested in

biotechnologies that address challenges in infrastructure sustainment, emergent care for battlefield trauma, and mitigating the impact of sleep loss on health and human performance. Prior to coming to DARPA, Pava was a senior scientist in the Human Systems and Autonomy research area at Lockheed Martin's Advanced Technology Laboratories, where he led research teams as a principal investigator on multiple projects, including DARPA-funded research, in areas of mobile health, physiological monitoring, and bioinformatics. A recipient of several awards for research innovation and service, Pava founded and moderated a scientific interest group on chronobiology and sleep at the National Institutes of Health (NIH) to facilitate cross-institute collaboration and communication within the Intramural Research Program. He has published over ten peer-reviewed journal

articles, given over 20 technical presentations, and has provided mentorship to junior staff and students throughout his career in industry and academia. Pava earned a doctorate in neuroscience from the Medical University of South Carolina and was a post-doctoral fellow at the National Institute on Alcohol Abuse and Alcoholism at NIH. He earned bachelor's degrees in psychology and molecular biology from the College of Charleston.

David Raizen, MD, PhD, is an Associate Professor of Neurology, Medicine, and Genetics at the Perelman School of Medicine, University of Pennsylvania. His research focuses on understanding basic mechanisms of sleep and fatigue. For his studies, he primarily uses the round worm C. elegans, which he developed as a model system for sleep research. He evaluates and treats patients with sleep disorders at the Penn Sleep Center in Philadelphia PA.

Clifford Saper, MD, PhD, received his M.D. and Ph.D. degrees and did his internship in internal medicine at Washington University School of Medicine in St. Louis, before doing a neurology residency at Cornell University Medical Center- New York Hospital. He then joined the faculty of Washington University School of Medicine where he served from 1981-1985 as Assistant and then Associate Professor of Neurology and Anatomy and Neurobiology. He moved to the University of Chicago, where from 1985-1992 he was an Associate Professor, then William D. Mabie Professor of Physiology and Neurology, and Chairman of the Committee on Neurobiology. In 1992, he moved to Harvard Medical School, where he is the James Jackson Putnam Professor of Neurology and Neuroscience. From 1992-2021 he also served as Chairman of the Harvard Department of Neurology at Beth Israel Deaconess Medical Center. Dr. Saper served from 1994-2011 as the Editor-in-chief of the Journal of Comparative Neurology and from 2014-2021 as the Editor-in-Chief of Annals of Neurology. Dr. Saper has received a Javits Neuroscience Investigator Award from the National Institutes of Health, and was named one of the 100 most frequently cited neuroscientists by the Institute for Scientific Information. He has served as Vice President and Councilor of the American Neurological Association, and has served on the Publications Committee and has chaired the Program Committee of both that organization and the Society for Neuroscience. He

has received the Distinguished Alumnus award from the University of Illinois, the Distinguished Scientist Award from the Sleep Research Foundation, the Sleep Science Award from the American Academy of Neurology, the Ariens Kappers Award from the Netherlands Brain Research Institute, and the Adrian Award from the International Federation for Clinical Neurophysiology. Dr. Saper was elected to the National Academy of Medicine, and has been named a Fellow of the American Academy of Neurology, the American Association for the Advancement of Science, and the Royal College of Physicians (London) and a member of the American Association of Physicians. Dr. Saper's research explores circuitry of the brain that controls basic functions such as wake-sleep cycles, thermoregulation, and immune and stress responses, and how these circuits are disrupted in neurological disorders, such as Parkinson's disease, and in sleep disorders such as narcolepsy and sleep apnea, and during aging.

Aarti Sathyanarayana, PhD, is an Assistant Professor at Northeastern University, joint between the Bouvé College of Health Sciences and the Khoury College of Computer Science. She also directs the interdisciplinary SATH Lab (the signal processing and artificial intelligence for time variant health data lab) which strives to improve human health and performance through digital phenotyping and biomarker discovery for neurological and mental health conditions. She aims to translate enigmatic digital health data collected from smartphones, wearables, and biomedical devices, into actionable insights for clinical care and personal wellness. Her work has developed new signal processing and machine learning algorithms advancing the fields of sleep, epilepsy, stress and depression. In addition to her role at Northeastern, Dr. Sathyanarayana also holds appointments in the Department of Biostatistics at the Harvard T.H. Chan School of Public Health, and the Clinical Data Animation Center at Massachusetts General Hospital and Harvard Medical School. Dr. Sathyanarayana received her PhD in Computer Science from the University of Minnesota, where her dissertation was selected for the university's Doctoral Dissertation Award. Since then, her work has won multiple junior investigator awards from the National Center of Women and Information Technology, the American Medical Informatics Association, the American Epilepsy Society, and the American Clinical Neurophysiology Society. Her expertise has also led her to hold positions at Apple, Intel, the Mayo Clinic, and Boston Children's Hospital.

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Thomas Scammell, MD, is a Professor of Neurology at Harvard Medical School, Beth Israel Deaconess Medical Center, and Boston Children's Hospital, Boston, Massachusetts. Dr. Scammell received his medical degree from the University of Massachusetts Medical School, and then completed a residency in Neurology at the University of California, San Francisco. For the last 25 years, Dr. Scammell has run a research lab at Beth Israel Deaconess Medical Center focused on identifying the neural mechanisms that control sleep and wakefulness. He has received several NIH grants to study the control of sleep and wakefulness by the hypothalamus and brainstem, and much of his lab's work now focuses on narcolepsy and identifying the pathways through which the orexin neuropeptides stabilize wakefulness and suppress cataplexy. Additional projects examine the interactions of sleep and pain, and the functions of arousal-promoting brainstem pathways. Dr. Scammell also treats patients with narcolepsy and other sleep disorders. He is a Section Editor for UpToDate and Principles and Practice of Sleep Medicine and was a Deputy Editor of Sleep. He has published over 150 research articles, reviews, and chapters.

Tiffany Schmidt, PhD, is an Associate Professor at Northwestern University in the Department of Neurobiology. She did her PhD work with Dr. Paulo Kofuji at the University of Minnesota and did her postdoctoral work with Dr. Samer Hattar at Johns Hopkins University. Dr. Schmidt's lab works to map the circuits by which light influences both conscious visual perception as well as subconscious visual behaviors. Her laboratory combines mouse genetics, behavior, and viral circuit tracing manipulations to story how the melanopsin-expressing, intrinsically photosensitive retinal ganglion cells influence diverse behaviors such as sleep, decision making, photoentrainment, addiction, and visual perception.

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Andrew Varga, PhD, MD, is an Associate Professor in the Mount Sinai Integrative Sleep Center in the Department of Medicine at the Icahn School of Medicine at Mount Sinai. He received his B.A. in biochemistry from Rice University. He then completed a Ph.D. in neuroscience at Baylor College of Medicine, where he studied cellular and molecular mechanisms of synaptic plasticity and memory formation. He then completed an M.D. from New York Medical College, residency training in neurology at Harvard Medical School/Beth Israel Deaconess Medical Center, and a sleep medicine fellowship at NYU. Dr. Varga has a longstanding interest in mechanisms of learning and memory, the role of sleep in cognition, and the effects of sleep disorders and sleep loss on cognitive function and risk for Alzheimer's and related neurodegenerative diseases. His active research programs span from animal models, investigating sleep disruption and augmentation on tau pathology, to human subjects, studying aging and sleep apnea effects on spatial memory and changes to the brain using neuroimaging techniques. He has been named a Leon Levy Neuroscience Fellow, a Friedman Brain Institute Scholar, American Thoracic Society James B. Skatrud Scholar, and has received support from the National Institute on Aging, the American Sleep Medicine Foundation, the American Thoracic Society Foundation, the Alzheimer's Association, and the philanthropy of James B. Kuhn.

Nathaniel Watson, MD, is currently Professor and Vice Chair of Faculty Affairs in the Department of Neurology, Co-director of the Sleep Center, and Director of the Harborview Medical Center Sleep Clinic at the University of Washington. He holds certifications with the American Board of Psychiatry and Neurology with a Sleep Medicine subspecialty and the American Board of Sleep Medicine and is a fellow of the American Academy of Sleep Medicine. He is a former President of the American Academy of Sleep Medicine and the American Board of Sleep Medicine. Over the course of his career he has held multiple research grants to study sleep disturbances and published extensively for medical and lay audiences. He has led the development of guideline and consensus documents regarding monitoring and managing sleep disturbances. His research has investigated genetic aspects of sleep duration and metabolic disease, mental health, and inflammation. His current investigations include the relationship between sleep-disordered breathing and cancer risk, the

impact of artificial intelligence and consumer sleep technology on human sleep and sleep medicine, and increasing access to sleep care for Native American populations. He is a passionate advocate for sleep health, with efforts focused on promoting healthy school start times, abolishment of daylight saving time, and transportation safety. His sleep advocacy and media work has touched millions of lives. Dr. Watson studied medicine at the University of North Carolina and obtained his master of science in genetic epidemiology from the University of Washington. He completed his medical internship, neurology residency, and clinical neurophysiology fellowship at the University of Washington. He has also conducted postgraduate studies at the National Institutes of Health and the University of Colorado.

Nargues Weir, MD, graduated medical school at George Washington University. She completed training in internal medicine at GWUMC, Pulmonary and Critical Care training at Yale University and Sleep training at Tufts University. Dr. Weir worked at NIH as well as the Advanced Lung Disease Program at Inova Fairfax Medical Center before joining the FDA. She is currently a Medical Officer in CDRH.

Phyllis Zee, MD, PhD, is the Benjamin and Virginia T. Boshes Professor in Neurology and Professor of Neurobiology at Northwestern University. She is also the Director of the Center for Circadian and Sleep Medicine (CCSM) and Chief of the Division of Sleep Medicine at Northwestern University's Feinberg School of Medicine. As Director of CCSM, Dr. Zee oversees an interdisciplinary program in basic and translational sleep and circadian rhythm research, and findings from her team have paved the way for innovative approaches to improve sleep and circadian health. Dr. Zee practices sleep medicine at Northwestern Medicine's Center for Circadian and Sleep Medicine in downtown Chicago and is the founder of the first circadian medicine clinic in the US, where innovative treatments are available for patients with circadian rhythm disorders. Dr. Zee has authored more than 300 peer reviewed original articles, reviews and chapters on the topics of sleep, circadian rhythms, and sleep/wake disorders. She has also trained over 50 pre-doctoral and post-doctoral students and has mentored numerous faculty members. Dr. Zee is a fellow of the American Academy of Sleep Medicine, a member of the American Academy of Neurology and member of the American

Neurological Association. She has served on numerous national and international committees, NIH scientific review panels, and international advisory boards. She is past President of the Sleep Research Society, past President of the Sleep Research Foundation, past Chair of the NIH Sleep Disorders Research Advisory Board, a past member of the NIH National Heart Lung and Blood Disorders Advisory Council and is the current President of the World Sleep Society. Dr. Zee is the recipient of the 2011 American Academy of Neurology Sleep Science Award, the 2014 American Academy of Sleep Medicine academic honor, the William C. Dement Academic Achievement Award, the 2020 Sleep Research Society Distinguished Scientist Award which is the society's highest award and recognizes significant, original and sustained scientific contributions, and the 2021 National Sleep Foundation Lifetime Achievement Award.

Vadim Zipunnikov, PhD, is an Associate Professor of Biostatistics at the Johns Hopkins Bloomberg School of Public Health. His work leverages multi-modal data from wearables and smartphones to better understand links between human behaviours and health. His recent focus is on understanding of impaired sleep and disruption of circadian rhythms in mood disorders and neurological diseases including Alzheimer's Disease and Multiple Sclerosis. He is a co-leader of the Wearable and Implantable Technology (WIT) group and serves as the Biostatistics director of Motor Activity Research Consortium for Health (mMARCH). Dr. Zipunnikov's work has been featured in NIH Research Matters, Time, Washington Post, BBC Radio, Yahoo News, US News and World Report.