



1	Discussion on the PCORI focus: considerations, standards, and language in sleep research	PCORI grants--how they differ from other grants (NIH, DOD). This session will provide a brief overview of PCORI and their methodology standards.	Sairam Parthasarathy, MD, FAASM Daniel J. Buysse, MD Philip R. Gehrman, PhD
2	Best practices in writing early career NIH grants	Focused discussion of best practices in NIH grant writing with National Center for Sleep Disorders Research staff	Michael Twery, PhD Mariska Brown, PhD Aaron Laposky, PhD
3	Mathematical modeling in sleep research	This session will provide an overview of current state-of-the-art approaches to mathematical modeling of sleep physiology and behaviors, including neural models, oscillator models, and cognitive performance models. Also, review applications of these models, including design of sleep interventions, modeling of sleep disorders, and insights into individual differences.	Andrew Phillips, PhD Elizabeth Klerman, MD
4	Sleep and Memory: Spindles and Targeted Memory Reactivation	Learn about the theoretical basis for memory reactivation during sleep, as well as studies that have specifically employed Targeted Memory Reactivation techniques to facilitate memory consolidation	Robert Stickgold, PhD
5	Sleep Circuits: What We Know and Don't Know.	A review of past findings focused on the sleep circuits and explore questions remaining to be asked as future research directions.	Luis de Lecea, PhD
6	Sleep over the course of pregnancy and the postpartum period	Learn about the changes experienced in sleep throughout pregnancy and during the postpartum period. Discuss the prevalence of different sleep disorders and interventions for each throughout pregnancy and the postpartum.	Katherine Sharkey, PhD



1	How to make the most out of existing datasets	Learn about how to formulate a question and then access and analyze data from large, public datasets	Susan Redline, MD
2	Is electronic media use making us wired and tired?	We will discuss how media, smartphones, and technology influence the sleep of adolescents and young adults. We encourage attendees to participate in the discussion of future directions in research related to electronic media and sleep.	Jessica C. Levenson, PhD Anne Marie Chang, PhD
3	Sex differences in sleep	Learn how women and men sleep differently	Jessica Mong, PhD
4	Sleep, Aging, and Cognition	Discuss past and current research on sleep patterns and sleep disorders in the elderly population. Discuss the links between sleep, cognitive impairments, and dementia in the elderly population.	Michael V. Vitiello, PhD
5	Sleep, Circadian Rhythms, and Drug Abuse	Discuss the close relationship between sleep/circadian rhythms and drugs of abuse, including how sleep/circadian disruption increases vulnerability for substance abuse, and how sleep and circadian studies could help researchers treat addiction. Explore new findings that suggest that sleep and/or circadian pathways directly regulate reward circuitry, drug craving and relapse.	Colleen A. McClung, PhD
6	Transitioning to industry	Learn from individuals who have taken their career to industry and how that might apply to your life/career	Mark S. Aloia, PhD Jed Black, PhD Christina Acebo, PhD



1	Circadian rhythms, sleep and metabolic health	A review of current and future research directions in the field of metabolic health research, including the impact of mistimed, insufficient, or irregular sleep and meal timing	Frank AJL Scheer, PhD
2	Health disparities and sleep	Learn about physical, social, and environmental determinants of sleep health, and their relationship with racial/ethnic, and socioeconomic health disparities	Michael A. Grandner, PhD
3	<i>SLEEP</i> Reviewer-in-Training	Participating in the peer review of journal articles is an important step in academic career development and a career-long obligation. This session introduces a new initiative from the editors of the journal <i>SLEEP</i> that provides trainees with a mentored pathway to becoming an independent reviewer for the journal. The session will include a summary of the basic skills for writing fair, balanced, and useful manuscript reviews, an overview of the peer review process at <i>SLEEP</i> and a description of <u>the <i>SLEEP</i> Reviewer-in-Training program.</u>	Ronald Szymusiak, PhD Daniel J. Buysse, MD
4	Sleep, "-omics," and precision medicine	Introduction to precision medicine and "-omics" based methods. Lecture to include examples of '-omics' based research in sleep, how '-omics' based sleep research informs precision medicine, and what it takes to develop a program of research which engages new precision medicine initiatives and "-omics" based methods in the sleep field.	Allan I. Pack, MBChB, PhD
5	Sleep, cannabinoids, and cannabis: Current state of the research	The lecture will provide overview of the relation between cannabinoids and sleep, including impact on sleep including a discussion of the role of the endocannabinoid system on sleep/wake, the role of cannabis withdrawal on sleep, and the state of the research on cannabinoids in specific sleep disorders. In addition, an overview of medical cannabis including regulatory and legal implications, as well as considerations for research in this area.	Kimberly Babson, Ph.D.
6	Staying on the cutting edge of pediatric sleep research	Discussion about developing a sustainable, career-long independent program of research which seeks to ask cutting edge research questions about pediatric sleep and which shows promise for making a real-world impact among children and their families.	Mary A. Carskadon, PhD Lisa J. Meltzer, PhD



1	Bench to Bedside: translational research in the sleep field	The push for translational research in the sleep field is increasing, but few researchers are effectively conducting both animal and human research. Learn about basics of translational research (e.g., comparing species), importance of translational research, and career development (e.g., the feasibility of doing both human and animal research).	Andrew Varga, MD, PhD Janet Mullington, PhD Sigrid Veasey, MD
2	Dreaming - A New Look at An Old Topic: Recent Findings and Discoveries.	Explore recent findings and discoveries in studies of dreaming.	Benjamin Baird, PhD
3	Environmental Pollutants and Sleep	Define the toxicological impact of suboptimal exposure to light, noise, air, temperature, chemical/toxins and allergens on sleep health.	Chandra L. Jackson, PhD, MS
4	Insights from Comparative Sleep Research	Discuss findings of sleep studies using unusual model animals such as birds, dolphins, jellyfish, etc. Learn about the fundamentals of sleep in the air and at sea. Discuss the paradox of adaptive sleeplessness. Understand the significance of these model animals and how studying them could contribute to the better understanding of sleep in human.	Niels C. Rattenborg, PhD
5	Sleep and fatigue in individuals with multiple sclerosis	Discuss what is known about sleep difficulties/disorders in individuals with MS.	Tiffany J. Braley, MD
6	Wearable Sleep Trackers: Clinical Actigraphs to Commercial Devices	Discuss the Comparability, Utility, and Limitations of Wearable Technology, as well as the difficulties surrounding empirical evaluation of industry	Massimiliano de Zambotti, PhD Sara Nowakowski, PhD