T32 HL082610 TRANSLATIONAL RESEARCH TRAINING IN SLEEP AND CIRCADIAN SCIENCE
FACULTY MENTORS

Sleep and Health: Basic and Pre-Clinical Studies. Core Leader: McClung

Faculty Member	Research Focus
Colleen McClung, PhD[1,4,7-,8]	Molecular mechanisms by which circadian genes control mood, anxiety and reward-related behavior using mouse models
Judy Cameron, PhD[1,3,7]	Interactions between stress and reproductive biology, using the non-human primate as an experimental model; genetic diathesis of stress-sleep relationships in non-human primates
Mark Gladwin, MD[3]	Pulmonary hypertension; nitric oxide biology; role of nitrites in improving metabolic outcomes in obesity and animal models of OSA
Yanhua Huang, PhD[5,7-8]	Cellular and circuit mechanisms by which sleep regulates natural or drug reward, using mouse and rat models
Bokai Zhu, PhD[5,7]	Cell-autonomous mammalian 12h ultradian clock, independent from the 24h circadian clock and its regulation and function; crosstalk with circadian and other ultradian rhythms

Sleep and Health: Mechanisms. Core Leaders: Hall, Patel

Faculty Member	Research Focus
Meredith Wallace, PhD[5,6]	Machine learning and advanced clustering techniques for big data; development of statistical techniques for multidimensional sleep and circadian health
Robert Krafty, PhD[2,3]	Application and development of statistical methodologies for analysis of longitudinal and time series data; particular emphasis on design and analysis of sleep and circadian data

Francesca Facco, MD[5]	Sleep, circadian rhythms, metabolic function during pregnancy; sleep interventions in pregnancy
Daniel Forman, MD[4]	Exercise training to modify sleep in heart failure and other cardiovascular diseases; cardiac rehabilitation, including aerobic and strength training, and specialized exercise techniques
Martica Hall, PhD[1,2,6-8]	Naturalistic, clinical experimental, and animal experimental models of stress-sleep-health relationships; cohort and population studies of sleep and cardiometabolic health
Marquis Hawkins, PhD[5,7-8]	The joint effects of physical activity and sleep on maternal health during and after pregnancy
Christopher E. Kline[5-8]	Interactions of sleep, physical activity, and sedentary behavior on cardiovascular outcomes; combined sleep-physical activity interventions
Kathryn Roecklein, PhD[5,7-8]	Sleep and circadian rhythms in mood disorders; retinal sensitivity & the effects of environmental light on mood and behavior; seasonal affective disorder
Sanjay Patel, MD, MPH[1,4,7-8]	Sleep epidemiology; sleep in minority populations
Steven Reis, MD[2]	Gender/race disparities in cardiovascular risk and mechanisms of atherosclerosis/endothelial dysfunction; biomarkers of systemic inflammation and metabolic syndrome; PI of CTSI
Patrick Strollo, Jr., MD[1]	Noninvasive ventilation; alternatives to positive pressure therapy for OSA; management of residual sleepiness in OSA; comorbid insomnia in OSA
Sally Wenzel, MD[4]	Mechanisms and clinical trials for asthma; interactions between asthma and sleep
Fabio Ferrarelli, MD, PhD[3,4,7-8]	Role of sleep spindles in psychosis; neuromodulation effects on sleep and cognition
Erika Forbes, PhD[1,2,7]	Role of sleep in adolescent affective disorders and its association with neural reward circuitry

Faculty Member	Research Focus
Peter L. Franzen, PhD[1,2, 6]	Naturalistic and experimental sleep deprivation/restriction paradigms to examine the role of sleep in physical and mental health; psychophysiological and neuroimaging-based indicators
Brant Hasler, PhD[1,6-8]	Circadian rhythms and sleep in relation to neural reward systems and substance use disorders; sleep in adolescence
Jessica Levenson, PhD[5,6]	Treatment of sleep problems; adolescent sleep; sleep and psychopathology
Mary L. Phillips, MD[1,2,7]	Functional imaging (fMRI) of neural systems underlying emotion processing in normal and psychiatric populations; comprehensive neurocognitive model of emotion processing
Greg Siegle, PhD[2,6,7]	Brain mechanisms of cognition and emotion, particularly as they are associated with affective disorders, prediction of recovery, and development of novel interventions
Adriane Soehner, PhD[5,6]	Sleep in brain development and mood disorders; structural and functional neuroimaging; the effects of sleep-circadian interventions on brain function and mood
Kristine Wilckens, PhD[5,6]	Brain mechanisms linking sleep and executive function in older adults; sleep and biomarkers of Alzheimer's Disease and Related Dementias

Sleep and Health: Intervention Studies. Core Leader: Buysse	
Faculty Member	**Research Focus**
Daniel J. Buysse, MD[1,2,6,7]	Insomnia, sleep in depression, sleep in aging, patient-reported outcomes; functional imaging of human sleep; Director of the N-CTRC; Program Director
Charles W. Atwood, Jr., MD[3]	Novel technologies for detection of OSA; cost-effectiveness of diagnostic and treatment methods in OSA; Emeritus Director of ACGME clinical Sleep Medicine Training Program

Lora Burke, PhD[4,7]	Mobile health to assess and deliver behavioral interventions (e.g., electronic diaries, smartphones, actigraphy, apnea link); ecological momentary assessment
Tina Goldstein PhD[4,6,7]	Sleep in bipolar disorder; sleep in adolescents; sleep interventions to reduce suicidality
Faith Luyster, PhD[5,6]	Sleep disorders in chronic lung diseases; behavioral sleep interventions
Elizabeth Miller, MD, PhD[1,4]	Clinic & community-based interventions to promote adolescent health; stakeholder-engaged research; qualitative & mixed-methods research; translating research for policy & practice
Anne B. Newman, MD, MPH[1,2,7]	Epidemiology of sleep disturbances and sleep apnea in older adults; sleep and functional status in the elderly; Pittsburgh site PI of the Sleep Heart Health Study; sleep cohort studies
Bruce Rollman, MD, MPH[4]	Internet interventions; treatment of depression and anxiety in medical patients; implementation research
Stephen F. Smagula, PhD[5,6]	Rest-activity rhythms; sleep-wake phenotypes; mental and brain health in aging; causal inference using observational data

[1]Served as mentor/co-mentor for T32 trainee. [2]Served as research collaborator for trainee during current funding period. [3]Provides educational/ resources and eligible to serve as mentor/collaborator. [4]New training faculty, senior investigator. [5]New training faculty, junior investigator. [6]Former Pitt T32 postdoc. [7]Serves on University graduate faculty, [8]predoctoral program faculty (n=9).