



WILLIAM C. DEMENT
SLEEP AND CHRONOBIOLOGY
BEHAVIORAL SCIENCE
RESEARCH APPRENTICESHIP

Retreat Colloquium

16-18 August 2017

Marcuvitz Auditorium, Sidney Frank Hall
Brown University, Providence, RI

Summer Sleep Retreat, 2017

Summer Sleep Retreat, 2017

Wednesday	Event	Speaker	Topic
1700	Dinner & Fun		BBQ at Avalon at Center Place; Fun & Games
Thursday	Event	Speaker	Topic
0845	Snack		
0915			Christine Acebo, PhD, Visiting Investigator
			Science: Inside and Outside Academia
1015	Break		
1045			Jess Weathers, Supervising Tech
			Sleep Misperception and Insomnia
1100			Leslie McCauley, Dement Fellow
			Officer Fatigue and Deadly Force Decision-Making
1115			Hannah Cole, Dement Fellow
			Comorbid Insomnia and PTSD

Summer Sleep Retreat, 2017

Thursday	Event	Speaker	Topic
1130		Gabi Campos, Dement Fellow	The Use of Pharmaceuticals as a Fatigue Countermeasure in Space
1145		Logan Cho, Dement Fellow	Sleep: The Junction between TBI and Emotional State
1200	Lunch		
1300		Azizi Seixas, PhD, Visiting Investigator	Personalized Lifestyle and Health Behavior Profiles in Cardiovascular Disease and Sleep Health: Theories, Methods, and Solutions
1400	Break		
1430		Kobi Axelrod, Dement Fellow	Sleep Duration/Quality and Risk of Hypertension
1445		Belinda Mahama, Dement Fellow	Is Six Hours Really Enough? Examining Sleep Deprivation through a Geneticist's Lens

Summer Sleep Retreat, 2017

Thursday	Event	Speaker	Topic
1500		Kethu Manokaran, Dement Fellow	Children's Bedrooms around the World: Where Sleep Meets Culture and Socioeconomic Status
1515		David Barker, PhD, Visting Investigator	Preliminary Results from the Food Choices Study
1630	Small Groups		Break Out Sessions
1730	Hors d'oeuvres		
1800	Dinner		
1915	Fun Night		
2130	Lights Out		

Summer Sleep Retreat, 2017

Friday	Event	Speaker	Topic
0900	Snack		
0930		Jessica Lunsford-Avery, PhD, Visiting Investigator	Sleep Disturbances and Neurocognition in Adolescent ADHD: A Polysomnographic Study
1030	Break		
1100		Emily DeMarco, Supervising Tech	Synaptic Plasticity, Memory Consolidation, and Sleep: Upscaling, Downscaling, or Both
1115		Claire Ryan, Supervising Tech	Sleep Extension's Effects on Athletic Performance
1130		Kaleigh Johnson, Dement Fellow	Jet Lag and Circadian Disruption: Their Effect on Elite Athletes' Performance Peak
1145		Jen Macias, Dement Fellow	Sleep Paralysis: An Overview and a Treatment

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Friday	Event	Speaker	Topic
1200	Lunch		
1315		Jon Roberts, Dement Fellow	Can Sleep help Predict Parkinson's?
1330		Minhaj Rahman, Dement Fellow	What Happens when Athletes get Tired of Sleeping?
1345		Kristina Lowndes, Dement Fellow	The Impact of Sleep Duration and Timing on Glucose Regulation and the Risk of Diabetes
1400		Mary A. Carskadon, PhD, Program Director	Thanks and Farewell

Summer Sleep Retreat, 2017

Visiting Investigator Presentations

Christine Acebo, PhD, Retired Scientist

Science: Inside and Outside Academia

I have just retired from my last full-time position as a scientist and will describe some of the highlights of my journey, including: research on motility monitoring devices of various kinds as proxies for sleep and wake in naturalistic settings; data analysis of complex data sets such as those obtained from forced desynchrony protocols; and work as a liaison between scientific/medical communities and pharmaceutical companies. I will aim to illustrate the value of developing scientific expertise along with strong communication and networking skills to unlock unexpected opportunities that may present over the course of a career.

Azizi Seixas, PhD, Assistant Professor of Population Health, New York University School of Medicine

Personalized Lifestyle and Health Behavior Profiles in Cardiovascular Disease and Sleep Health: Theories, Methods, and Solutions

Dr. Seixas will discuss personalized and precision lifestyle and health behavior approaches to address cardiovascular and sleep health issues. Specifically, the talk will identify behavior change theories and their limitations, traditional and novel analytical methods, and solutions to address limitations of behavior change approaches and behavioral medicine (such as machine learning, complex system analysis, and artificial intelligence).

Summer Sleep Retreat, 2017

Visiting Investigator Presentations

David Barker, PhD, Assistant Professor (Research), Department of Psychiatry and Human Behavior, Alpert Medical School of Brown University

Preliminary Results from the Food Choice Study

This is the 4th summer where Dement Fellows worked hard to ensure faithful implementation of study protocols and accurate data collection so that we can better understand the links between weight, eating behaviors, and circadian biology among adolescents. This presentation will briefly describe what happens to the data once it is collected, the statistical approaches that we use to model the circadian influence, and showcase some of the preliminary results.

Jessica Lunsford-Avery, PhD, Assistant Professor, Department of Psychiatry and Behavioral Sciences, Duke University Medical Center

Sleep Disturbances and Neurocognition in Adolescent ADHD: A Polysomnographic Study

Attention-Deficit/Hyperactivity Disorder (ADHD) in adolescence is predictive of academic and social impairment. In part, poor functioning may be due to neurocognitive deficits observed in ADHD; however, the extent of these deficits is variable within ADHD and mechanisms contributing to greater neurocognitive impairment in some adolescents and not others are poorly understood. Sleep disturbance represents one potential contributor to diminished neurocognition in ADHD. Disturbed sleep is prevalent in ADHD and there is considerable overlap between core ADHD features and the neurocognitive correlates of sleep impairment. The current study uses polysomnography to assess sleep disturbance and its relationship to neurocognitive outcomes in adolescents with ADHD and healthy controls (HC). The primary hypothesis predicts that adolescents with ADHD will display reduced duration, increased latency, more frequent nocturnal awakenings, slower decline in overnight delta power, and disrupted sleep spindles compared to HC. In addition, sleep disturbance is predicted to be associated with poorer neurocognitive and clinical presentations in ADHD adolescents. If these hypotheses are supported, sleep disturbance may represent a biomarker for phenotypic subtypes of ADHD. In addition, examining this construct may inform development of prevention and intervention strategies with the potential to impact sleep disturbance as well as ADHD symptoms in adolescents.

Summer Sleep Retreat, 2017

2017 William C. Dement Fellows

Kobi Axelrod

Rising junior, Brown University

Gabriela Campos

Rising junior, Brown University

Logan Cho

Rising sophomore, Brown University

Hannah Cole

Rising senior, University of Tulsa

Kaleigh Johnson

Rising senior, Gettysburg College

Kristina Lowndes

Rising sophomore, Brown University

Jennifer Macias

Rising senior, California State University, Monterey Bay

Belinda Mahama

Rising second-year PhD student, Brown University

Kethu Manokaran

Rising senior, Wellesley College

Leslie McCauley

Rising senior, Brown University

Minhaj Rahman

Rising junior, Middlebury College

Jonathan Roberts

Rising senior, Columbia University

Summer Sleep Retreat, 2017

Research Apprenticeship Faculty, Staff, & Trainees

APPRENTICESHIP FACULTY

**Alpert Medical School of Brown University,
Department of Psychiatry and Human
Behavior**

Mary A. Carskadon, PhD, Director

David Barker, PhD

Rachel Herz, PhD

Jeanne McCaffery, PhD

Jared Saletin, PhD

Ron Seifer, PhD

Eliza Van Reen, PhD

**Alpert Medical School of Brown University,
Department of Medicine**

Katherine M. Sharkey, MD, PhD

Emory University, Program in Sleep

Donald Bliwise, PhD

**Harvard Medical School, Division of Sleep
Medicine**

Cassie Hilditch, PhD

Lifespan Physician Group, Psychiatry

Jared Minkel, PhD

**Loyola University Maryland, Department of
Psychology**

Amy Wolfson, PhD

**NASA Ames Research Center Fatigue
Countermeasures Laboratory**

Erin Flynn-Evans, PhD

**Rush University, Department of Behavioral
Sciences**

Stephanie Crowley-McWilliam, PhD

**Stony Brook Medicine, Program in Public
Health**

Lauren Hale, PhD

**Temple University, Department of Public
Health**

Chantelle Hart, PhD

**University of Massachusetts Amherst,
Psychological and Brain Sciences**

Janna Mantua, PhD

**University of Pennsylvania, Department of
Psychiatry**

Namni Goel, PhD

**University of Pennsylvania, Perelman
School of Medicine**

Philip Gehrman, PhD

**University of Tennessee, Knoxville,
Department of Nutrition**

Hollie Raynor, PhD

University of Zurich, Sleep & Health

Salome Kurth, PhD

Walter Reed Army Institute of Research

Allison Brager, PhD

SLEEP LAB RESEARCH STAFF, E.P. BRADLEY HOSPITAL

Ashten Bartz, Sr. Research PSG Tech

David Bushnell, Sr. Research Assistant

Emily DeMarco, Supervising Tech

Max Elliott, Administrative Secretary

Ashley Ernst, PSG Tech & Research
Assistant

Maya Fray-Witzer, Research Volunteer

Caroline Gredvig-Ardito, Data Manager &
IRB Coordinator

Alex He, Supervising Tech

Katie McCullar, Supervising Tech

Alexis Rodriguez, Research Assistant

Claire Ryan, Supervising Tech

Jess Weathers, Supervising Tech

Eli Wolfgang, Research Volunteer

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PERINATAL SLEEP RESEARCH STAFF, RI HOSPITAL

Sarah Carr, RN, Research Assistant

Julie Quattrucci, Research Assistant

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