

# SCIENTIFIC PROGRAM

Sunday, June 6, 2010

## DISCUSSION GROUP

1:00pm – 3:00pm

### **D 01: Is Long Sleep Truly Hazardous?**

1:00pm – 3:00pm

Room 007ABCD

**Chair: Shawn Youngstedt, PhD**

*Faculty:* James Gangwisch, PhD; James Horne, PhD; Kristen Knutson, PhD; Erkki Kronholm, PhD; Kevin Morgan, PhD; Fred Turek, PhD

*Psychologist Level of Content:* Intermediate

### **Objectives:**

1. Discuss epidemiologic evidence associating long sleep with mortality and morbidity and the proposed mechanisms by which long sleep could be harmful.
2. Review the counterargument that the associations of long sleep with mortality and morbidity are not likely to be causal.
3. Identify recent experimental evidence and other possible approaches for exploring the hypothesis that long sleep could be hazardous.

## ORAL PRESENTATIONS

1:00pm – 3:00pm

Authors selected for oral presentations are allotted a 10-minute time period to present their abstract, followed by a 5-minute time period for questions and answers. The four-digit abstract ID number corresponds to the *SLEEP* abstract supplement.

### **O 01: Human Sleep Deprivation: Mechanisms and Outcomes**

1:00pm – 3:00pm

Room 008AB

**Chair: Hans Van Dongen, PhD**

*Psychologist Level of Content:* Intermediate

**Objective:** Inventory the physiological consequences of sleep deprivation and restriction.

**#0239** 1:00pm – 1:15pm

**IMPACT OF SLEEP DEPRIVATION ON SEROTONIN 2A RECEPTOR DENSITY IN THE HUMAN BRAIN: A [18F]ALTANSERIN PET STUDY**

*Elmenhorst D, Kroll T, Matusch A, Bauer A*

**#0240** 1:15pm – 1:30pm

**EXAMINING A REHEARSAL SPAN COMPONENT PROCESS IN WORKING MEMORY DURING SLEEP DEPRIVATION USING fMRI**

*McKenna BS, Kaestner EJ, Brown GG, Drummond SP*

**#0241** 1:30pm – 1:45pm

**DQB1\*0602 ALLELE PREDICTS INTERINDIVIDUAL DIFFERENCES IN PHYSIOLOGICAL SLEEP STRUCTURE, SLEEPINESS AND FATIGUE DURING BASELINE AND CHRONIC PARTIAL SLEEP DEPRIVATION**

*Goel N, Banks S, Mignot E, Dinges DF*

**#0242** 1:45pm – 2:00pm

**THE EMOTIONAL IMPACT OF SLEEP RESTRICTION IN ADOLESCENTS**

*Franzen PL, Buysse DJ, Duryea DN, Wood A, Siegle GJ, Dahl RE*

**#0243** 2:00pm – 2:15pm

**CHRONIC SLEEP RESTRICTION IMPAIRS REACTION TIME PERFORMANCE MORE IN YOUNG THAN IN OLDER SUBJECTS**

*Cain SW, Silva EJ, Munch MY, Czeisler CA, Duffy JF*

**#0244** 2:15pm – 2:30pm

**THE EFFECTS OF MODEST SLEEP RESTRICTION FOR ONE WORK-WEEK FOLLOWED BY RECOVERY SLEEP ON LEPTIN, HUNGER AND APPETITE LEVELS, AND ENERGY INTAKE IN A NON-STRESSFUL ENVIRONMENT**

*Pejovic S, Tsaoussoglou M, Basta M, Vgontzas A, Stiffler D, Bixler EO, Calhoun S, Chrousos G*

**#0245** 2:30pm – 2:45pm

**METABOLIC CONSEQUENCES OF CHRONIC SLEEP RESTRICTION COMBINED WITH CIRCADIAN MISALIGNMENT**

*Buxton OM, Cain SW, O'Connor SP, McLaren D, Czeisler CA, Shea SA*

**#0246** 2:45pm – 3:00pm

**THE RELATIVE INFLUENCE OF CIRCADIAN AND HOMEOSTATIC PROCESSES ON SLEEP DURING FORCED DESYNCHRONY WITH A RESTRICTED SLEEP OPPORTUNITY**

*Paech GM, Ferguson SA, Sargent C, Darwent D, Zhou X, Williams L, Matthews RW, Kennaway DJ, Roach GD*

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## SYMPOSIUM

1:00pm – 3:00pm

### **S** 01: The Development of Hypocretin/Orexin Receptor Antagonists for Sleep Disorders: A Progress Report

1:00pm – 3:00pm

Room 006CD

**Chair: Thomas Kilduff, PhD**

*Faculty:* Christine Dugovic, PhD; Philip Gerrard, PhD; Francois Jenck, PhD; Christopher Winrow, PhD

*Psychologist Level of Content:* Advanced

#### Objectives:

1. Summarize the research linking hypocretin/orexin to the sleep disorder narcolepsy and identification of this system as a potential target to modulate sleep and wakefulness.
2. Discuss the latest developments in the development of pharmaceuticals directed toward the hypocretin/orexin system.
3. Explain the preclinical and clinical tools used to advance hypocretin/orexin compounds to their current stage.
4. Evaluate the hypocretin/orexin compounds advanced to date and discuss the appropriateness of the preclinical and clinical tools employed.

1:00pm – 1:05pm **Introduction**  
*Thomas Kilduff, PhD*

1:05pm – 1:30pm **From Genetics to Therapeutics: Development of Novel Hypocretin/Orexin Receptor Antagonists**  
*Christopher Winrow, PhD*

1:30pm – 1:55pm **Hypocretin/Orexin Receptor Antagonists for Insomnia: 2 > 1+2**  
*Christine Dugovic, PhD*

1:55pm – 2:20pm **Use of Translational Biology Techniques in the Development of Novel Hypnotic Agents: The Hypocretin/Orexin Antagonists**  
*Philip Gerrard, PhD*

2:20pm – 2:45pm **The Dual Hypocretin/Orexin Receptor Antagonist Almorexant - Potential Advantages over Conventional Sleeping Agents**  
*Francois Jenck, PhD*

2:45pm – 3:00pm **Question and Answer Session**  
*Faculty*

## REFRESHMENT BREAK

3:00pm – 3:15pm

## ORAL PRESENTATIONS

3:15pm – 5:15pm

Authors selected for oral presentations are allotted a 10-minute time period to present their abstract, followed by a 5-minute time period for questions and answers. The four-digit abstract ID number corresponds to the *SLEEP* abstract supplement.

### **O** 02: Epidemiological and Clinical Aspects of Sleep in the Older Adult

3:15pm – 5:15pm

Room 006CD

**Chair: Donald Bliwise, PhD**

*Psychologist Level of Content:* Intermediate

**Objective:** Summarize normal and abnormal sleep in older adults using a variety of research and clinical methods.

#1033 3:15pm – 3:30pm  
**SLEEP COMPLAINTS AND FATIGUE DECLINE ACROSS THE LIFESPAN: GETTING OLDER DOES NOT NECESSARILY MEAN POOR SUBJECTIVE SLEEP AND DAYTIME FATIGUE**  
*Grandner MA, Perlis ML, Martin JL, Gehrman P, Patel NP, Xie D, Sha D, Weaver TE, Gooneratne N*

#1034 3:30pm – 3:45pm  
**NON-RESTORATIVE SLEEP IS DIFFERENT IN OLDER ADULTS**  
*Vitiello MV, Ohayon MM*

#1035 3:45pm – 4:00pm  
**AGE AT ONSET OF CHRONIC INSOMNIA SYMPTOMS PRESENTING IN LATER LIFE: RELATIONSHIPS WITH HEALTH AND CLINICAL OUTCOMES**  
*Morgan K*

#1036 4:00pm – 4:15pm  
**DEPRESSIVE SYMPTOMS AND SUBJECTIVE AND OBJECTIVE DISTURBANCES IN SLEEP IN COMMUNITY-DWELLING OLDER WOMEN**  
*Maglione JE, Ancoli-Israel S, Wilt K, Paudel ML, Yaffe K, Ensrud KE, Stone KL*

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- #1037** 4:15pm – 4:30pm  
**SLEEP DISCREPANCY AND ITS CORRELATES AMONG OLDER ADULTS**  
*Kay DB, Dzierzewski JM, Rowe M, McCrae C*
- #1038** 4:30pm – 4:45pm  
**SLEEP DISRUPTION AMONG AGING ADULTS IN THE HEALTH AND RETIREMENT STUDY**  
*Williams LL, Pryor ER, Drentea P, Chasens ER, Vance D, Umlauf MG*
- #1039** 4:45pm – 5:00pm  
**PHYSICAL ACTIVITY, SLEEP DURATION, AND BODY WEIGHT IN POSTMENOPAUSAL WOMEN: THE WOMEN'S HEALTH INITIATIVE STUDY**  
*Sims ST, Hale L, Pettinger M, Phillips LS, Isasi C, Thomson C, Stefanick ML*
- #1040** 5:00pm – 5:15pm  
**EXERCISE BEHAVIOR PREDICTS DAILY SELF-REPORTED SLEEP IN COMMUNITY-DWELLING ELDERLY**  
*Dzierzewski JM, Buman MP, Giacobbi PR, Roberts BL, Aiken Morgan A, Marsiske M, McCrae C*

- 03: Memory Consolidation, Sleep Staging and Naps**  
3:15pm – 5:15pm  
**Room 008AB**  
**Chair: Sara Mednick, PhD**

*Psychologist Level of Content: Intermediate*

**Objective:** Explain the relationship between sleep variables and cognition.

- #0080** 3:15pm – 3:30pm  
**MEMORY CONSOLIDATION: THE TEMPORAL RELATIONSHIP BETWEEN LEARNING AND SLEEP**  
*Alger SE, Lau H, Fishbein W*
- #0081** 3:30pm – 3:45pm  
**STATISTICAL REPRESENTATIONS BENEFIT FROM A NAP**  
*Durrant S, Taylor C, Lewis PA*
- #0082** 3:45pm – 4:00pm  
**EFFECTS OF DAYTIME NAPPING ON TEMPORAL AND SPATIAL RELATIONS**  
*Lau H, Alger SE, Fishbein W*
- #0083** 4:00pm – 4:15pm  
**SLEEP RESTORES THE HUMAN BRAIN CAPACITY TO LEARN**  
*Mander BA, Santhanam S, Walker MP*
- #0084** 4:15pm – 4:30pm  
**A CORRELATIONAL ANALYSIS OF SLEEP VARIABLES AND IQ IN YOUNG AND ELDERLY ADULTS**  
*Peters K, Ray LB, Smith C*
- #0085** 4:30pm – 4:45pm  
**ASSESSING VULNERABILITY OF ATTENTION IN WORKING MEMORY DURING SLEEP DEPRIVATION USING fMRI**  
*Kaestner EJ, McKenna BS, Brown GG, Drummond SP*
- #0086** 4:45pm – 5:00pm  
**THE IMPACT OF VARYING SLEEP LENGTH ON SLEEP-DEPENDENT LEARNING**  
*Dodson ER, Anch AM, Walsh JK*
- #0087** 5:00pm – 5:15pm  
**BRAIN NETWORKS IN STAGE 2 SLEEP AND WAKE AT REST AND FOLLOWING AUDITORY STIMULATION**  
*Sheth B, Wu W*

# SCIENTIFIC PROGRAM

Sunday, June 6, 2010

## SYMPOSIUM

3:15pm – 5:15pm

- S 02: New Insights into the Dynamics of Recovery from Chronic Partial Sleep Loss**  
3:15pm – 5:15pm  
Room 007ABCD

**Co-Chairs: Siobhan Banks, PhD; and David Dinges, PhD**

*Faculty:* Elizabeth Klerman, MD, PhD; Fred Turek, PhD

*Psychologist Level of Content:* Advanced

### Objectives:

1. Review findings from the first systematic sleep restriction and recovery sleep-dose response experiments in healthy humans.
2. Discuss results from animal studies investigating the implications of repeated sleep restriction and recovery on homeostatic processes.
3. Interpret data from studies investigating the optimal dose of CPAP to recover functioning.

3:15pm – 3:45pm **What Can One Night Give You: Dose-response Dynamics of Sleep Physiology and Neuro-behavioral Functions Following Sleep Restriction**

*Siobhan Banks, PhD*

3:45pm – 4:15pm **Sleep Homeostasis and Recovery in a Rodent Model of Chronic Sleep Restriction**

*Fred Turek, PhD*

4:15pm – 4:45pm **Uncovering Residual Effects of Chronic Sleep Loss on Human Performance**

*Elizabeth Klerman, MD, PhD*

4:45pm – 5:15pm **Recycling Back into Sleep Restriction: Dose Response Effects of Recovery Sleep**

*David Dinges, PhD*

## WELCOME TO SAN ANTONIO NETWORKING RECEPTION

6:00pm – 7:30pm

**Henry B. Gonzalez Convention Center**

**Grotto Area - River Level**

Pre-registration is required.