

**Sunday**

3:00 pm Check-in

6:00 pm Reception (Lobby)

7:00 pm Dinner

8:00 pm **Keynote Address**

**Sydney Brenner**, Howard Hughes Medical Institute

*The hypothalamus: Molecular biology of neural control of physiological processes*

9:00 pm Refreshments available at Bob's Pub

**Monday**

7:30 am Breakfast

**9:00 am Session 1: Hypothalamic circuit plasticity**  
**Chair: Tom Insel**

9:00 am **Dionysia T. Theodosis**, Inserm and the University of Bordeaux  
*Evaluation of neuron-glia plasticity and its physiological repercussions*

9:30 am **Tamas Horvath**, Yale University  
*A critical role for mitochondrial adaptation in synaptic plasticity of hypothalamic circuits*

10:00 am **Antonello Bonci**, University of California, San Francisco  
*Role of hypothalamic peptides in modulating synaptic plasticity in the VTA*

10:30 am Break and Group Photo

**11:00 am Session 2: Gender and innate behavior**  
**Chair: Susana Lima**

11:00 am **Nirao Shah**, University of California, San Francisco  
*Molecular representation of gender in the brain*

11:30 am **Menno R. Kruk**, Leiden/Amsterdam Center for Drug Research  
*Cutting the Hessian knot: The hypothalamic network of aggression and its sensitivity to the adrenocortical stress response.*

12:00 pm **Larry J. Young**, Emory University School of Medicine  
*The molecular mechanisms underlying social bonding*

12:30 pm Lunch

1:00 pm Tour (optional)

**2:15 pm Session 3: Feeding and body weight**  
**Chair: Ted Brodtkin**

2:15 pm **Richard Palmiter**, HHMI/University of Washington  
*Role of hypothalamic neurons that express agouti-related protein on feeding behavior*

2:45 pm **Scott M. Sternson**, Janelia Farm Research Campus/HHMI  
*Cell type-specific neuron activation and silencing tools for dissecting molecularly-defined circuits*

- 3:15 pm **Joel K. Elmquist**, UT Southwestern Medical Center at Dallas  
*CNS pathways regulating body weight and glucose homeostasis*
- 3:45pm Break
- 4:15 pm Poster Session 1**
- 6:15 pm Reception
- 7:00 pm Dinner
- 8:00 pm **Session 4: Molecular mechanisms of circadian clocks**  
**Chair: Cheryl Sisk**
- 8:00 pm **Joseph S. Takahashi**, HHMI/UT Southwestern Medical Center  
*Use of the tetracycline Transactivator (tTA) System for the study of circadian behavior*
- 8:30 pm **Clifford Saper**, Harvard University  
*Inducible clocks: Living in an unpredictable world*
- 9:00 pm Refreshments available at Bob's Pub

**Tuesday**

7:30 am Breakfast

**9:00 am Session 5: Revealing structure-function relationships I**  
**Chair: Antonello Bonci**

9:00 am **Larry W. Swanson**, University of Southern California  
*Structure-function organization of hypothalamic circuitry*

9:30 am **Cheryl Sisk**, Michigan State University  
*Remodeling of hypothalamic circuits during puberty and adolescence*

10:00 am **Jeffrey Tasker**, Tulane University  
*Synaptic circuit mechanisms of magnocellular neuron burst generation and synchronization*

10:30 am Break

**11:00 am Session 6: Revealing structure-function relationships II**  
**Chair: Catherine Dulac**

11:00 am **Newton S. Canteras**, University of Sao Paulo  
*Dissecting the brain's fear system: The hypothalamus is critical for fear responding to ethological relevant threats*

11:30 am **Paul E. Sawchenko**, Salk Institute for Biological Studies  
*Neurovascular mechanisms for engagement of hypothalamic stress circuitry by immune/inflammatory stimuli*

12:00 pm **Joshua Corbin**, Children's National Medical Center  
*Embryonic development and connectivity of medial amygdala inhibitory neurons*

12:30 pm Lunch

**2:00 pm Session 7: Genetic approaches to study neural circuits**  
**Chair: Nirao Shah**

2:00 pm **Luis de Lecea**, Stanford University  
*Optogenetic control of arousal*

2:30 pm **Richard Simerly**, University of Southern California  
*Visualizing metabolic programming of hypothalamic neural circuitry*

3:00 pm **Hongkui Zeng**, Allen Institute for Brain Science  
*Genetic interrogation of cortical cell type-specific structure and function*

- 3:30 pm Break
- 4:00 pm Poster Session 2**
- 6:00 pm Reception
- 7:00 pm Dinner
- 8:00 pm Session 8: Genetics and Genomics**
- 8:00 pm **Edward S. Brodtkin**, University of Pennsylvania School of Medicine  
*Forward genetics as a tool for revealing hypothalamic-thalamic circuits that affect intermale aggressive behaviors*
- 8:30 pm **Catherine Dulac**, HHMI/Harvard University  
*Spatial, temporal, sex- and species-specific genomic imprinting in the mouse brain*
- 9:00 pm Refreshments available at Bob's Pub

**Wednesday**

- 7:30 am Breakfast
- 9:00 am Session 9: Tools for studying neuronal function**  
**Chair: Richard Simerly**
- 9:00 am **Harold Gainer**, National Institute of Neurological Disorders and Stroke  
*Approaches and model systems directed at studies of cell-specific gene expression in the hypothalamus*
- 9:30 am **Gareth Leng**, University of Edinburgh  
*Real time computational modelling of neuronal activity*
- 10:00 am **Valery Grinevich**, Max Planck Institute for Medical Research  
*Recombinant viruses: New versatile tools for functional connectivity and physiology of hypothalamic neurons*
- 10:30 am Break
- 11:00 am Session 10: Tools for mapping neuronal circuits**  
**Chair: Scott Sternson**
- 11:00 am **Bernard Balleine**, University of Sydney, Australia  
*New behavioral tools to study the amygdalo-striatal-hypothalamic network*
- 11:30 am **Anthony N. van den Pol**, Yale University School of Medicine  
*Neuronal interactions within hypothalamus- transgenic mice and recombinant viruses as tools to understand the hypothalamus*
- 12:00 pm **Susana Lima**, Instituto Gulbenkian de Ciência  
*PINP- Photostimulation-assisted identification of neuronal populations*
- 12:30 pm Lunch and Departure (To-go boxes from servery available for those on first shuttle)
- 1:00 pm First shuttle to Dulles  
 1:45 pm Second shuttle to Dulles  
 2:30 pm Last shuttle to Dulles