

**Sunday, September 25**

*Arrival and check-in*

6:00 pm Reception (*Lobby*)

7:00 pm Dinner

**8:00 pm Welcome and Opening Remarks**

**8:05 pm Keynote: Sten Grillner**, Karolinska Institutet  
*The lamprey blueprint of forebrain structures contributing to action - selection*

**8:45 pm Keynote: William Kristan**, University of California, San Diego  
*Behavioral choice: A neuronal group decision*

9:25 pm Refreshments available at Bob's Pub

**NOTE:**

**Meals are in the Dining Room**

**Talks are in the Seminar Room**

**Posters are in the Lobby**

**Monday, September 26**

Talks are 25 minutes +  
5 minutes for Q&A

7:30 am Breakfast (*service ends at 8:45am*)

**9:00 am Session 1**  
**Chair: Gwyneth Card**

9:00 am **Michale S. Fee**, Massachusetts Institute of Technology  
*TBD*

9:30 am **Joe Fetcho**, HHMI/Cornell University  
*Evidence leading to the hypothesis that an action selection hierarchy is built via an orderly developmental and functional ground plan in the hindbrain and spinal cord*

10:00 am **Claire E. McKellar**, Janelia Research Campus/HHMI  
*Action selection at cellular resolution in flies: How actions are assembled into sequences and reused in different contexts*

10:30 am Break

**11:00 am Session 2**  
**Chair: Michael Pankratz**

11:00 am **Casey M. Schneider-Mizell**, Janelia Research Campus/HHMI  
*Competitive disinhibition in early sensory processing mediates behavioral choice and sequences in *Drosophila**

11:30 am **Tony J. Prescott**, University of Sheffield  
*Behavioral integration in rats and robots*

12:00 pm Lunch (*service ends at 1pm*)

**1:30 pm Session 3**  
**Chair: Joe Fetcho**

1:30 pm **Manuel Castro-Alamancos**, Drexel University College of Medicine  
*Basal ganglia output controls active avoidance behavior*

2:00 pm **Jens Herberholz**, University of Maryland  
*Crayfish giant neurons control precisely timed movements of antennal scales during escape behavior*

2:30 pm **Gwyneth M. Card**, Janelia Research Campus/HHMI  
*TBD*

3:00 pm Break

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- 3:30 pm**      **Session 4**  
**Chair: Julie Simpson**
- 3:30 pm      **Tiago Branco**, University College London  
*Computation of instinctive escape decisions*
- 4:00 pm      **Roshan A. Jain**, Haverford College  
*A forward genetic screen identifies the G-protein coupled calcium receptor CaSR as a regulator of simple decision-making*
- 4:30 pm      **Michael J. Pankratz**, University of Bonn  
*Selection of motor programs underlying food intake in Drosophila*
- 5:00 pm**      **Poster Blitz I (3 min / 3 slides each)**
- Kenta Asahina**, Salk Institute for Biological Study  
**Siddharth Jayakumar**, National Centre for Biological Sciences  
**Talmo Pereira**, Princeton University  
**Haifeng Su**, Chinese Academy of Sciences  
**Eric Yttri**, Janelia Research Campus
- 5:20 pm      Poster Reception
- 7:00 pm      Dinner
- 8:00 pm**      **Session 5**  
**Chair: Josh Dudman**
- 8:00 pm      **Manuel Zimmer**, Research Institute of Molecular Pathology  
*Functions and mechanisms of brain wide attractor dynamics in Caenorhabditis elegans*
- 8:30 pm      **Jennifer L. Raymond**, Stanford University  
*Neural learning rules in the cerebellum*
- 9:00 pm      Refreshments available at Bob's Pub

**Tuesday, September 27**

7:30 am Breakfast (*service ends at 8:45am*)

**9:00 am Session 6**  
**Chair: Barry Dickson**

9:00 am **Robert S. Turner**, University of Pittsburgh  
*A direct comparison of movement-related neuronal activity in the basal ganglia and motor cortex*

9:30 am **Bernardo L. Sabatini**, HHMI/Harvard University  
*Unexpected interactions and circuitry in the basal ganglia*

10:00 am **Josh Dudman**, Janelia Research Campus/HHMI  
*TBD*

10:30 am Break

**11:00 am Session 7**  
**Chair: Jennifer Raymond**

11:00 am **Aryn H. Gittis**, Carnegie Mellon University  
*Cell-specific pallidal stimulation produces long-lasting recovery of movement in dopamine depleted mice*

11:30 am **Peter Redgrave**, University of Sheffield  
*Agency and action acquisition - pre-requisites for selection*

12:00 pm **Eleanor H. Simpson**, Columbia University  
*Encoding and manipulating the anticipation of effort*

12:30 pm Lunch (*service ends at 1pm*)

1:15 pm Tour (*optional – meet at reception*)

**2:15 pm Session 8**  
**Chair: Bernardo Sabatini**

2:15 pm **Patricia Janak**, Johns Hopkins University  
*Behavioral specificity in the midbrain dopamine system*

2:45 pm **Marta Zlatic**, Janelia Research Campus/HHMI  
*Circuits for memory-based behavioral choice in *Drosophila larva**

3:15 pm Break

- 3:45 pm **Daisuke Hattori**, Columbia University  
*Novelty and familiarity in a mushroom body compartment*
- 4:15 pm **Yun Zhang**, Harvard University  
*Circuit mechanisms underlying action selection in *C. elegans* olfactory learning*
- 4:45 pm** **Poster Blitz II** (3 min / 3 slides each)
- Jan Ache**, Janelia Research Campus/HHMI  
**Margaret DeMaegd**, Illinois State University  
**Ruichen Sun**, University of California, San Diego  
**Dominic Evans**, University College London
- 5:00 pm Poster Reception
- 6:45 pm Dinner
- 8:00 pm** **Session 9**  
**Chair: Marta Zlatic**
- 8:00 pm **Charles Gallistel**, Rutgers University  
*Timed action selection depends on a rich stochastic model*
- 8:30 pm **Shawn R. Lockery**, University of Oregon  
*Value-based decision making in *C. elegans**
- 9:00 pm Refreshments available at Bob's Pub

**Wednesday, September 28**

- 7:30 am Breakfast (*service ends at 8:45am*)
- 9:00 am Session 10**  
**Chair: Patricia Janak**
- 9:00 am **Christopher Fetsch**, HHMI & Columbia University  
*Effects of optogenetic inactivation in macaque areas MT and MST on choice and confidence during a direction discrimination task*
- 9:30 am **Wolfgang Stein**, Illinois State University  
*Multimodal neurons controlling sensory-induced motor patterns*
- 10:00 am **Michael N. Nitabach**, Yale School of Medicine  
*Action selection driven by multisensory information processing in *C. elegans**
- 10:30 am Closing Discussion / Final Remarks
- 11:00 am Conclusion / Lunch and Departure (Serving open 11:30am-1pm)
- 11:30 am First shuttle to Dulles
- 12:30 pm Second shuttle to Dulles
- 1:30 pm Last shuttle to Dulles