Sunday, September 25

Annal 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 Institute
          *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

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NOTE:
Meals are in the Dining Room
Talks are in the Seminar Room
Posters are in the Lobby
Monday, September 26

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

9:30 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

10:00 am  Break

10:30 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

09/23/2016
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

09/23/2016
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

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