Sunday, October 23

3:00 pm Check-in

6:00 pm Reception \((\text{Lobby})\)

7:00 pm Dinner

8:00 pm Welcome and Opening Remarks

8:00 pm Keynote: Wolfram Schultz, University of Cambridge

Basic characteristics of the dopamine reward signal

9:00 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, October 24

7:30 am  Break (service ends at 8:45 am)

9:00 am  Session 1: Olfactory learning and memory-based behavioral choice
          Chair: Jess Kanwal

9:00 am  Bertram Gerber, Leibniz Institute for Neurobiology
          Motivation as inverse prediction error?

9:25 am  Marta Zlatic, Janelia Research Campus/HHMI
          Circuit principles of memory-based behavioral choice

9:50 am  Liria M. Masuda-Nakagawa, University of Cambridge
          Modulatory circuitry of sensory representation in mushroom body calyx of Drosophila larva

10:15 am  Break

10:45 am  Session 1 continued: Olfactory learning and memory-based behavioral choice
           Chair: Jess Kanwal

10:45 am  Andreas S. Thum, University of Konstanz
           Anesthesia resistant memory is dependent on radish and protein kinase C function in Drosophila larvae

11:10 am  Barbara Webb, University of Edinburgh
           Modelling larval chemotaxis and learning

11:35 am  Session 2: Innate olfactory processing and navigation
           Chair: Nils Otto

11:35 am  Aravindran Samuel, Harvard University
           Olfactory processing in the larval antennal lobe

12:00 pm  Marc Gershow, New York University
           Deciphering decision making using optogenetic reverse correlation

12:25 pm  Lunch (service ends at 1:00 pm)

1:45 pm  Session 2 continued: Innate olfactory processing and navigation
           Chair: Nils Otto

1:45 pm  Ibrahim Tastekin, Centre for Genomic Regulation
           A large-scale loss-of-function screen reveals a descending neuron involved in the sensorimotor control of Drosophila larval chemotaxis
2:10 pm  Session 3: Innate navigation  
Chair: Anita Burgos  

2:10 pm  Markus Knaden, Max Planck Institute for Chemical Ecology, Jena  
The impact of Drosophila odorant receptors on larval and adult behavior  

2:35 pm  Simon G. Sprecher, University of Fribourg  
Visual information coding in the Drosophila larva  

3:00 pm  David Stern, Janelia Research Campus/HHMI  
Evolved differences in larval social behavior mediated by novel pheromones  

3:25 pm  Break  

3:45 pm  Session 4: Synapses and plasticity  
Chair: Sebastian Hückesfeld  

3:45 pm  Brian D. McCabe, Brain Mind Institute, EPFL  
Miniature neurotransmission is essential for synapse maturation and maintenance  

4:10 pm  Richard A. Baines, University of Manchester  
Identification of a critical period for neuronal homeostasis  

4:35 pm  Matthias Landgraf, University of Cambridge  
Reactive oxygen species regulate activity-dependent structural plasticity  

5:00 pm  Break  

5:30 pm  Poster reception  

7:00 pm  Dinner  

8:00 pm  Session 5: Whole brain  
Chair: Mark Dombrovski  

8:00 pm  Philipp J. Keller, Janelia Research Campus/HHMI  
Live imaging of the Drosophila larval nervous system at high spatio-temporal resolution  

8:25 pm  Albert Cardona, Janelia Research Campus/HHMI  
The complete wiring diagram of Drosophila larva: Halfway there  

8:50 pm  Refreshments available at Bob’s Pub
Tuesday, October 25

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

9:00 am  Session 6: Somatosensation
Chair: Pauline Fritsch

9:00 am  Yuh-Nung Jan, HHMI/University of California, San Francisco
*Mechano-sensation of Drosophila larva*

9:25 am  Peter Soba, University of Hamburg
*Integration of mechanosensory modalities and neuropeptide mediated signaling facilitates nociceptive behavior*

9:50 am  Dan Tracey, Indiana University Bloomington
*Encoding of larval body movements and position by directionally selective ON/OFF proprioceptive neurons*

10:15 am  Tihana Jovanic, Janelia Research Campus/HHMI
*Competitive disinhibition in early sensory processing mediates behavioral choice and sequences in Drosophila larvae*

10:40 am  Break

11:10 am  Session 7: Motor
Chair: David Wood

11:10 am  Wesley Grueber, Columbia University
*Development and function of the larval proprioceptive system*

11:35 am  Hiroshi Kohsaka, University of Tokyo
*Local feedback on axial propagation in Drosophila larval locomotor circuits*

12:00 pm  Stefan Pulver, University of St. Andrews
*Neuromodulatory control of motor pattern selection in the larval locomotor system*

12:25 pm  Lunch (service ends at 1:00 pm)

1:15 pm  Tour (optional - meet at reception)

2:15 pm  Session 7 continued: Motor
Chair: David Wood

2:15 pm  Ellie Heckscher, University of Chicago
*Embryonic lineage 3-3 gives rise to a diversity of sensory processing interneurons*
2:40 pm  **Akinao Nose**, University of Tokyo
*Circuit mechanisms that regulate motor pattern in larval Drosophila*

3:05 pm  **Volker Hartenstein**, University of California, Los Angeles
*Lineage-based analysis of the architecture of the subesophageal zone of the Drosophila brain*

3:30 pm  Break

**4:00 pm**  Session 8: Behavior  
**Chair: Anna Rist**

4:00 pm  **Barry Condron**, University of Virginia  
*Cooperative digging behavior in Drosophila larvae*

4:25 pm  **Christen K. Mirth**, Monash University  
*Regulating macronutrient intake in Drosophila melanogaster larvae*

4:50 pm  **Claudio R. Alonso**, University of Sussex  
*The impact of microRNA regulation on Drosophila behaviour*

5:15 pm  Poster Reception

7:00 pm  Dinner

**8:00 pm**  **Keynote: Jim Truman**, University of Washington  
*The evolution and adaptations of the larval nervous system*

9:00 pm  Refreshments available at Bob’s Pub
Wednesday, October 26

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

9:00 am  Session 9: Development
Chair: Suzana Benitez

9:00 am  Steve Stowers, Montana State University
Acetylcholine/Glutamate dual neurotransmitter neurons in Drosophila larva

9:25 am  Akira Chiba, University of Miami
Cdc42 interacts directly with Par6 and WASp to coordinate precise positioning and timely elaboration of aCC motoneuron dendrite

9:50 am  Chris Q. Doe, HHMI/University of Oregon
Development of neural circuits generating larval locomotion

10:15 am  Break

10:45 am  Session 10: Neuroendocrine
Chair: Suguru Takagi

10:45 am  Yuko Shimada-Niwa, University of Tsukuba
Exploring a neuroendocrine link between feeding, wandering, and pupariation

11:10 am  Christian Wegener, Biocenter, University of Würzburg
Behavioural and physiological functions of the brain-gut allatostatin A peptides in the Drosophila maggot

11:35 am  K. VijayRaghavan, National Centre for Biological Sciences
TBD

12:00 pm  Closing Discussion /Final Remarks

12:30 pm  Lunch and Departure

12:45 pm  First shuttle to Dulles
1:45 pm  Second shuttle to Dulles
2:45 pm  Last shuttle to Dulles