

Sunday, October 23

- 3:00 pm Check-in
- 6:00 pm Reception (*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

Talks are 20 min + 5 min for Q&A

- 7:30 am Breakfast (*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 **Aravinthan 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 Dombrowski

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