

Sunday, March 5

- 3:00 pm Check-in
- 6:00 pm Reception (*Lobby*)
- 7:00 pm Dinner
- 8:00 pm Welcome & Opening Remarks (Organizers)
- 8:05 pm Plenary Talks**
Chair: Glenn Turner
- 8:05 pm **Richard Axel**, HHMI/Columbia University
Representations of novelty and familiarity in a mushroom body compartment
- 8:50 pm **Larry F. Abbott**, Columbia University
Modeling the mushroom body
- 9:35 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, March 6

- 7:30 am Breakfast (*service ends at 8:45am*)
- 9:00 am Plenary Talk**
Chair: Gerry Rubin
- 9:00 am Nate Sawtell**, Columbia University
Generation and subtraction of expectations in cerebellum-like structures
- 9:45 am Break
- 10:15 am Session 1**
Chair: Thomas Preat
- 10:15 am **Yoshinori Aso**, Janelia Research Campus/HHMI
Beyond EM reconstruction of the mushroom body
- 10:40 am **Tzumin Lee**, Janelia Research Campus/HHMI
Development of Drosophila mushroom bodies
- 11:05 am **Gabriella Wolff**, University of Washington
An ancient origin of the mushroom body
- 11:30 am Lunch (*service ends at 1pm*)
- 1:00 pm Session 2**
Chair: Ron Davis
- 1:00 pm **Marta Zlatic**, Janelia Research Campus/HHMI
Circuits principles of memory-based behavioral choice
- 1:25 pm **Gregory S. Jefferis**, MRC Laboratory of Molecular Biology
Circuit logic of the lateral horn and its relationship to the mushroom body
- 1:50 pm **James M. Jeanne**, Harvard Medical School
Olfactory processing channels organize into functional clusters in the lateral horn
- 2:15 pm Break

- 2:45 pm** **Session 3**
Chair: Nate Sawtell
- 2:45 pm **Mark Stopfer**, National Institutes of Health
Oscillatory integration windows in Kenyon cells
- 3:10 pm **Davi Bock**, Janelia Research Campus/HHMI
Tracing memory circuits in adult Drosophila using a whole-brain electron microscopy data set
- 3:35 pm **Gaia Tavosanis**, DZNE
The adult mushroom body calyx microglomerular synaptic complex
- 4:00 pm **Pengyu Hong**, Brandeis University
Learning to automatically trace 3D neurons using deep-transfer-learning
- 4:25 pm Break
- 4:45 pm** **FAFB Session (optional)**
Introduction of the full adult fly brain (FAFB) EM data set, ground rules for visitor collaborations and the Wellcome Trust grant focusing on tracing in the MB.
- 5:30 pm Poster Reception
- 7:00 pm Dinner
- 8:00 pm** **Plenary Talks**
Chair: Vanessa Ruta
- 8:00 pm **Daniel Dombeck**, Northwestern University
Exploring the mouse navigation system with high-resolution imaging and virtual reality
- 8:45 pm **Jesse Goldberg**, Cornell University
Dopaminergic error signals in birdsong support a general model of basal ganglia dependent learning
- 9:30 pm Refreshments available at Bob's Pub

Tuesday, March 7

- 7:30 am Breakfast (*service ends at 8:45am*)
- 9:00 am Session 4**
Chair: Krystyna Keleman
- 9:00 am **Andreas S. Thum**, University of Konstanz
Genetic dissection of aversive associative olfactory learning and memory in Drosophila larvae
- 9:25 am **Bertram Gerber**, Leibniz Institute for Neurobiology
The mnemonic architecture of the larval Drosophila mushroom body
- 9:50 pm **Chan Lin**, University of Maryland Baltimore County
From no calyx to visual calyx: Development of the whirligig beetle's mushroom body supports the calyx as an add-on neuropil to the MB ground pattern circuitry
- 10:15 am Break
- 10:45 am Session 5**
Chair: Daniel Dombeck
- 10:45 am **Ron L. Davis**, Scripps Research Institute, Florida
Molecular neurobiology of memory suppression and active forgetting
- 11:10 am **Yi Zhong**, Cold Spring Harbor Laboratory
Exploring the molecular mechanism in protecting labile memory in Drosophila
- 11:35 am **Gero Miesenböck**, University of Oxford
Time to decide
- 12:00 pm **Ilona C. Grunwald Kadow**, Max-Planck Institute of Neurobiology/Technical University of Munich
Internal state-dependent role of dopamine in valence
- 12:25 pm Lunch (*service ends at 1pm*)
- 1:15 pm Tour (*optional – meet at reception*)

- 2:15 pm** **Session 6**
Chair: Scott Waddell
- 2:15 pm **Krystyna Keleman**, Janelia Research Campus/HHMI
Persistent activity in recurrent circuit underlies courtship memory
- 2:40 pm **Glenn Turner**, Janelia Research Campus/HHMI
The mushroom body and learning - flexibly assigning valence to odors
- 3:05 pm **Thomas Preat**, Centre National de la Recherche Scientifique (CNRS)
A pair of serotonergic neurons controls long-term memory consolidation in Drosophila
- 3:30 pm Break
- 4:00 pm** **Session 7**
Chair: Greg Jefferis
- 4:00 pm **Vanessa Ruta**, Rockefeller University
Coordinated and compartmentalized neurodmodulation shapes flexible olfactory processing in the Drosophila mushroom body
- 4:25 pm **Seth Tomchik**, Scripps Florida
Dopamine and cAMP-dependent plasticity produce plasticity in intrinsic mushroom body neurons that mimic conditioning effects
- 4:50 pm Break
- 5:15 pm Reception
- 7:00 pm Dinner
- 8:00 pm** **Plenary Talks**
Chair: Gerry Rubin
- 8:00 pm** **Rui M. Costa**, Columbia University
Starting new actions and learning from it
- 8:45 pm** **Josh Dudman**, Janelia Research Campus/HHMI
The less mysterious motivational functions of dopamine
- 9:30 pm Refreshments available at Bob's Pub

Wednesday, March 8

- 7:30 am Breakfast (*service ends at 8:45am*)
- 9:00 am Session 8**
Chair: Sarah Farris
- 9:00 am **Ashok Litwin-Kumar**, Columbia University
Modeling distributed learning in the Drosophila mushroom body
- 9:25 am **Ann-Shyn Chiang**, National Tsing Hua University
Long-term memory requires sequential protein synthesis in three subsets of mushroom body output neurons in Drosophila
- 9:50 am **Hiromu Tanimoto**, Tohoku University
Visualization and neuronal control of memory-guided choice behavior
- 10:15 am Break
- 10:45 am Session 9**
Chair: Vanessa Ruta
- 10:45 am **Andre Fiala**, University of Göttingen
Monitoring learning-induced plasticity in single Kenyon cells in Drosophila melanogaster
- 11:10 am **Scott Waddell**, University of Oxford
Re-evaluation of learned information in Drosophila
- 11:35 am Closing Discussion**
- 12:15 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