Sunday, April 22

3:00 pm  Check-in
6:00 pm  Reception (Lobby)
7:00 pm  Dinner (table assignments noted in Dining Room)
8:00 pm  Welcome and Opening Remarks
8:05 pm  Keynote Talk
Malcolm Burrows, University of Cambridge
How studies of insect neural circuits have evolved
9:05 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, April 23

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

9:00 am  Session 1
Chair: Gwyneth Card

9:00 am  David Shepherd, Bangor University
*Hemilineage organisation of the adult Drosophila VNS*

9:25 am  James W. Truman, University of Washington
*Towards a functional understanding of the cardinal classes of interneurons in the fly VNS*

9:50 am  Ellie Heckscher, University of Chicago
*Temporal cohorts of lineage-related neurons perform analogous functions in distinct sensorimotor circuits*

10:05 am  Break

10:35 am  Session 2
Chair: Wyatt Korff

10:35 am  Sarah E. Ross, University of Pittsburgh
*The neural circuits of pain, itch and temperature*

11:00 am  John Tuthill, University of Washington
*Neural coding of leg proprioception and motor control in Drosophila*

11:25 am  Sasha Zill, Marshall University
*Force sensing and motor control in insects*

11:50 pm  Tom Matheson, University of Leicester
*Aimed limb movements of insects*

12:15 pm  Lunch (*service ends at 1pm*)

1:00 pm  Tour (optional – meet at reception)
**Neural Circuits of the Insect Ventral Nerve Cord**

**2:00 pm**  
**Session 3**  
**Chair:** Einat Couzin-Fuchs

2:00 pm  
**Julie H. Simpson**, University of California, Santa Barbara  
*Circuits implementing the grooming motor sequence*

2:25 pm  
**Ansgar Büschges**, University of Cologne  
*Task specificity of intersegmental and local control in stick insect walking*

2:50 pm  
**Salil S. Bidaye**, University of California, Berkeley  
*Central neurons for walking control in Drosophila*

3:05 pm  
**Pavan Ramdya**, École Polytechnique Fédérale de Lausanne  
*Imaging neural activity in the ventral nerve cord of behaving adult Drosophila*

3:30 pm  
**Break**

**4:00 pm**  
**Session 4**  
**Chair:** Roy Ritzmann

4:00 pm  
**Richard S. Mann**, Columbia University  
*Neuropeptide modulation of walking behavior*

4:25 pm  
**Eugenia Chiappe**, Champalimaud Foundation  
*Active visual control of locomotion*

4:50 pm  
**Barry Dickson**, Janelia Research Campus/HHMI  
*Neurogenetic analysis of locomotor circuits in Drosophila*

**5:15 pm**  
**Poster Blitz (2 minutes / 1 slide each)**

**Jan Ache**, Janelia Research Campus/HHMI  
**Sweta Agrawal**, University of Washington  
**Erica Ehrhardt**, University of Cologne  
**Woo Jae Kim**, University of Ottawa  
**Haluk Lacin**, Janelia Research Campus/HHMI  
**Theodore Lindsay**, California Institute of Technology  
**Ryo Minegishi**, Janelia Research Campus/HHMI  
**Umesh Mohan**, National Centre for Biological Sciences  
**Frederic Roemschied**, Princeton Neuroscience Institute  
**Rajyashree Sen**, Janelia Research Campus/HHMI  
**Samuel Whitehead**, Cornell University  
**Mei Zhen**, Mt. Sinai Hospital & University of Toronto

**5:45 pm**  
**Poster Reception**

**7:15 pm**  
**Dinner**

4/19/18
8:15 pm   **Keynote Talk**  
**Abdel El Manira**, Karolinska Institutet  
*Functional diversity of interneurons and their circuit assembly in adult zebrafish*

9:15 pm   Refreshments available at Bob’s Pub
Tuesday, April 24

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

9:00 am  Session 5
         Chair: Julie Simpson

9:00 am  Michael Dickinson, California Institute of Technology  
         The organization of the Dipteran flight motor

9:25 am  Jessica L. Fox, Case Western Reserve University  
         Haltere mechanosensory input to the fly nervous system

9:50 am  Itai Cohen, Cornell University  
         Uncovering the neural architecture for motor control of insect flight

10:15 am  Break

10:45 am  Session 6
          Chair: Tom Matheson

10:45 am  Anne C. Von Philipsborn, Aarhus University  
          Multifunctional wing motor control for song and flight

11:10 am  David Stern, Janelia Research Campus/HHMI  
          Neural changes underlying rapid fly song evolution

11:35 am  Sten Grillner, Karolinska Institutet  
          The conserved structure of the lamprey motor system from forebrain to dorsal nerve cord

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

1:30 pm  Session 7
         Chair: Sarah Ross

1:30 pm  Damon A. Clark, Yale University  
         Dynamic activation of sensory neurons in walking Drosophila

1:55 pm  Einat Couzin-Fuchs, University of Konstanz  
         Active sensing in insects: Bidirectional interactions between sensory perception and action

2:20 pm  Marta Zlatic, Janelia Research Campus/HHMI  
         Mapping the ascending pathways from somatosensory pathways that mediate unconditioned stimuli
2:45 pm  **Nino Ramirez**, Seattle Children’s Research Institute
*The dynamic basis of rhythm generation: Lessons learned from the mammalian respiratory network*

3:10 pm  Break

3:40 pm  **Session 8**
**Chair: Sasha Zill**

3:40 pm  **Shigehiro Namiki**, University of Tokyo
*The functional organization of descending sensory-motor pathways in Drosophila*

4:05 pm  **Gwyneth M. Card**, Janelia Research Campus/HHMI
*Mechanisms of descending control*

4:30 pm  **Marta Moita**, Champalimaud Foundation
*Innate freezing behavior, triggered by P9 descending neurons, is plastic*

4:45 pm  **Rachel I. Wilson**, HHMI/Harvard Medical School
*Descending neurons at the intersection of sensory guidance cues and leg steering*

5:10 pm  Poster Reception

7:00 pm  Dinner

8:15 pm  **Keynote Talk**
**Silvia Arber**, University of Basel and Friedrich Miescher Institute for Biomedical Research
*Organization and function of descending motor circuits in mice*

9:15 pm  Refreshments available at Bob’s Pub
**Wednesday, April 25**

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

**9:00 am  Session 9**  
**Chair: Anne Von Philipsborn**

9:00 am  **Sanjay Sane**, National Centre for Biological Sciences  
*Neural encoding and multiplexing of visual and mechanosensory feedback by descending neurons in hawk moths*

9:25 am  **Kevin C. Daly**, West Virginia University  
*Flight motor networks modulate primary olfactory processing: A novel corollary discharge circuit in the moth manduca sexta*

9:50 am  **Frederic Libersat**, Ben Gurion University of the Negev  
*What can parasitoid wasps teach us about the descending control of locomotion in insects?*

10:05 am  **Roy E. Ritzmann**, Case Western Reserve University  
*The central complex provides descending influence on motor control*

10:30 am  Break

**11:00 am  Session 10**  
**Chair: Kevin Daly**

11:00 am  **Joshua P. Martin**, Colby College  
*MantisBot: A robotic platform for modeling interactions between the central complex and ventral nerve cord circuits*

11:15 am  **Casey Schneider Mizell**, Janelia Research Campus/HHMI  
*Conserved neural circuit structure across Drosophila larval development revealed by comparative connectomics*

11:30 am  **Harald F. Hess**, Janelia Research Campus/HHMI  
*Plans for 3D Electron Microscopy Images of VNC: Quality, timeline, options*

11:55 pm  **Wyatt Korff**, Janelia Research Campus/HHMI  
*Putting it all together: Resources for studying the VNC*

12:20 pm  Closing Remarks / Final Discussion

12:30 pm  Lunch and/or Departure *(Lunch service ends at 1pm)*

1:00 pm  First shuttle to Dulles

2:00 pm  Second shuttle to Dulles

3:00 pm  Last shuttle to Dulles

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