Full Schedule

Sunday, May 17th

3:00 pm	Check-in

6:00 pm   Reception

7:00 pm   Dinner

8:00 pm   **Opening Remarks: Kevin Moses**, Janelia Farm Research Campus

8:05 pm   **Session 1: Beginning with the Eye**
                   Chair: Kevin Moses

8:05 pm   **Plenary Lecture:**
                   Richard Masland, Harvard University, Massachusetts General Hospital
                   and
                   Satchin Panda, Salk Institute
                   Why we need to learn about invertebrate phototransduction

9:05 pm   **Mike Land**, University of Sussex
                   Variations in the design and resolution of compound eyes

9:35 pm   Refreshments available at Bob's Pub

Monday, May 18th

7:30 am   Breakfast

9:00 am   Session 2: Detecting Motion
                Chair: Iris Salecker

9:00 am   **Alexander Borst**, Max Planck Institute of Neurobiology, Martinsried
                The fly lobula plate - A sensory network for ego-motion estimation based on optic flow analysis

9:30 am   **Holger G. Krapp**, Imperial College London
                Visual mechanisms of self-motion estimation in flies

10:00 am   **Thomas R. Clandinin**, Stanford University
                Using forward genetics to dissect visual circuitry in Drosophila

10:30 am   Break and Group Photo

11:00 am   Session 3: Detecting Motion (continued)

11:00 am   **Stephan C. F. Neuhauss**, University of Zurich
                Earning its stripes: The zebrafish as a model organism to study vertebrate cone vision

11:30 am   **David O'Carroll**, University of Adelaide
                Adaptation to visual motion by flying insects

12:00 pm   **Fabrizio Gabbiani**, Baylor College of Medicine
                Neural computations underlying collision-avoidance behaviors

12:30 pm   Lunch

1:00 pm   Tour (optional)

2:20 pm   Session 4: Detecting Motion (continued)
                Chair: Tom Clandinin

2:20 pm   **Nick Strausfeld**, University of Arizona
                The optic glomerular complex: The segmental homologue of the antennal lobe

2:50 pm	**Gwyneth M. Card**, California Institute of Technology *Visual decision-making in the escape response of the fly, Drosophila melanogaster*
3:10 pm	**Geoffrey Portelli**, Institut des Scences du Mouvement, CNRS *A bee in the corridor: Joint speed control and lateral obstacle avoidance*
3:30 pm	Break
4:00 pm	**Poster Session I**
6:00 pm	Reception
7:00 pm	Dinner
8:00 pm	**Session 5: Detecting Motion (continued)** **Chair: Alexander Borst**
8:00 pm	**Dierk F. Reiff**, Max Planck Institute of Neurobiology *Visual processing in the Drosophila brain: A combined optophysiological, electrophysiological and genetic approach*
8:30 pm	Discussion on Motion Detection
9:00 pm	Refreshment's available at Bob's Pub

Tuesday, May 19th

7:30 am	Breakfast

9:00 am　　**Session 6: Connectivity and Development of Circuits**
　　　　　　　Chair: Chi-Hon Lee

9:00 am　　**Andrea H. Brand**, University of Cambridge
　　　　　　Neural stem cell division in the Drosophila optic lobe: Balancing symmetric and asymmetric division

9:30 am　　**Ian A. Meinertzhagen**, Dalhousie University
　　　　　　The synaptic circuits of the fly's medulla: Getting at the medulla cells

10:00 am　　**Iris Salecker**, National Institute for Medical Research
　　　　　　Regulation of layer-specific targeting in the developing visual system of Drosophila

10:30 am　　Break

11:00 am　**Session 7: Connectivity and Development of Circuits (continued)**

11:00 am　　**Jessica Treisman**, New York University Medical Center
　　　　　　Novel modes of LAR and Liprin function in R7 photoreceptor synapse formation

11:30 am　　**Karl-Friedrich Fischbach**, Albert-Ludwigs-University Freiburg
　　　　　　Sorting it out: Functional pathway formation during pupal development of the optic lobe

12:00 pm　　**Aljoscha Nern**, Janelia Farm Research Campus/HHMI
　　　　　　An enhancer-based approach to the neuronal cell types of the optic lobe

12:20 pm　　Lunch

1:50 pm　　**Session 8: Detecting Color**
　　　　　　　Chair: Mike Land

1:50 pm　　**Adriana Briscoe**, University of California, Irvine
　　　　　　Adaptive evolution of color vision in a mimetic butterfly complex

2:20 pm　　**Kentaro Arikawa**, Graduate University for Advanced Studies, Sokendai
　　　　　　Spectral heterogeneity of ommatidia and its development in the eyes of the butterfly Papilio xuthus

2:50 pm　　**Eric J. Warrant**, Lund University
　　　　　　Seeing in the dark: Vision and visual behaviour in nocturnal insects

3:20 pm	Break

3:40 pm   Session 9: Detecting Color (continued)

3:40 pm   **Wulfila Gronenberg**, University of Arizona
Central processing of visual information in Hymenoptera

4:00 pm   **Mathias F. Wernet**, Stanford University
Genetic analysis of polarization vision in Drosophila

4:20 pm   Poster Session II

6:20 pm   Reception

7:00 pm   Dinner

**8:00 pm   Session 10: Detecting Color (continued)
Chair: Richard Masland**

8:00 pm   **Claude Desplan**, New York University
The neural network for Drosophila color vision

8:30 pm   **Chi-Hon Lee**, National Institutes of Health
Neural substrates of spectral preference in Drosophila

9:00 pm   **David H. Brainard**, University of Pennsylvania
Bayes, color, and the trichromatic cone mosaic

9:30 pm   Discussion on Color Vision

10:00 pm   Refreshments available at Bob's Pub

Wednesday, May 20th

7:30 am   Breakfast

**9:00 am   Session 11: Vision and Complex Behaviors
               Chair: Claude Desplan**

9:00 am   **Mark Frye**, University of California, Los Angeles
               *Flight optomotor responses segregate optic flow fields and are enhanced by odor
               signals through the mushroom body*

9:30 am   **Elke K. Buschbeck**, University of Cincinnati
               *From linear eyes to scanning behavior: The bizarre visual system of a diving
               beetle larva*

10:00 am   **Mandyam V. Srinivasan**, University of Queensland
               Visually guided flight, navigation and 'cognition' in honeybees

10:30 am   Break

11:00 am   Session 12: Vision and Complex Behaviors (continued)

11:00 am   **Reinhard Wolf**, University of Wuerzburg
               Investigation of selective visual attention in Drosophila during tethered flight

11:30 am   **Mikko Juusola**, University of Sheffield
               Selective attention gates visual information processing in Drosophila

12:00 pm   **Michael Reiser,** Janelia Farm Research Campus/HHMI
               Visual place learning in Drosophila

12:30 pm   Concluding Remarks

12:35 pm   Lunch (Take out boxes from servery for those on first shuttle)

1:00 pm   First shuttle to Dulles
1:45 pm   Second shuttle to Dulles
2:30 pm   Last shuttle to Dulles