Schedule at a Glance

NOTE:
All meals are in the **Dining Room**
All talks are in the **Seminar Room**
Posters are located in the **Synapse Room**

Sunday November 2nd

3:00 pm	Check-in
6:00 pm	Reception
7:00 pm	Dinner
8:00 pm	Plenary Talk
9:00 pm	Refreshments available at Bob's

Monday November 3rd

7:30 am	Breakfast
9:00 am	Session 1: Photoswitches I
10:45 am	Break and Group Photo
11:15 am	Session 1: Photoswitches (continued)
12:15 pm	Lunch
1:00 pm	Tour (optional)
2:00 pm	Session 2: Photoswitches II
3:30 pm	Break
4:00 pm	Session 2: Photoswitches II (continued)
5:30 pm	Discussion
6:00 pm	Reception
7:00 pm	Dinner
8:00 pm	Poster Reception

Tuesday November 4th

7:30 am	Breakfast
9:00 am	Session 3: Small molecule-mediated switches
10:45 am	Break
11:15 am	Session 3: Small molecule-mediated switches (continued)
12:15 pm	Lunch
1:15 pm	Session 4: Temperature, peptides and toxins
2:45 pm	Break
3:15 pm	Session 4: Temperature, peptides and toxins (continued)
4:15 pm	Discussion
4:45 pm	Poster Reception
6:30 pm	Dinner
8:00 pm	Refreshments available at Bob's

Wednesday November 5th

7:30 am	Breakfast
9:00 am	Session 5 - Applications
10:30 am	Break
11:00 am	Discussion and future directions
12:15 pm	Lunch (take out boxes from servery) and departure
12:30 pm	First shuttle to Dulles
1:15 pm	Second shuttle to Dulles
2:00 pm	Last shuttle to Dulles

Full Schedule

Sunday, November 2nd

3:00 pm	Check-in
6:00 pm	Reception
7:00 pm	Dinner
8:00 pm	**Plenary Talk - Gero Miesenboeck, University of Oxford**
9:00 pm	Refreshments available at Bob's Pub

Monday, November 3rd

7:30 am	Breakfast
9:00 am	**Session 1: Photoswitches I** **Chair: Peter Hegemann**
9:00 am	**Peter Hegemann**, Humboldt-Universität zu Berlin *Tailoring channelrhodopsin for neuroscience*
9:45 am	**Oleg Sineshchekov**, University of Texas Medical School at Houston *Photosensory functions of channelrhodopsins in native algal cells*
10:15 am	**Karl Deisseroth**, Stanford University *Development and application of optogenetic tools*
10:45 am	Break and Group Photo
11:15 am	**Session 1: Photoswitches (continued)**
11:15 am	**Edward S. Boyden**, Massachusetts Institute of Technology *High-precision genetically-targeted optical control of normal and pathological neural computations*
11:45 am	**Roger Y. Tsien**, HHMI/University of California, San Diego *Engineered channelrhodopsin variants with improved kinetics and enhanced temporal control of neuronal excitability*
12:15 pm	Lunch
1:00 pm	Tour (optional)
2:00 pm	**Session 2: Photoswitches II**
2:00 pm	**Dirk Trauner**, University of California, Berkley *Synthetic neurobiology*
2:30 pm	**Richard H. Kramer**, University of California, Berkley *Light-regulated K+ channels for remote control of neuronal excitability*
3:00 pm	**Andrew Woolley**, University of Toronto *Chemically modified photo-switchable proteins*
3:30 pm	Break
4:00 pm	**Session 2: Photoswitches II (continued)**

4:00 pm **Stefan Herlitze**, Case Western Reserve University
Control of GPCR pathways and neuronal circuits by light

4:30 pm **Georg Nagel**, University of Wuerzburg
Fast manipulation of neurons by light

5:00 pm **Ernst Bamberg**, Max Planck Institute of Biophysics
Channel rhodopsin 2, molecular mechanism and applications

5:30 pm Discussion

6:00 pm Reception

7:00 pm Dinner

8:00 pm Poster Reception

Tuesday, November 4th

7:30 am Breakfast

9:00 am **Session 3: Small molecule-mediated switches**
Chair: Bryan Roth

9:00 am **Bryan Roth**, University of North Carolina Chapel Hill Medical School
Evolved GPCRs as tools to modulate neuronal activity in vitro and in vivo

9:45 am **Scott M. Sternson**, Janelia Farm Research Campus/HHMI
Design of modular, orthogonal silencers and activators of neurons

10:15 am **David J. Anderson**, HHMI/California Institute of Technology
Genetic manipulation of neural circuits mediating innate behaviors

10:45 am Break

11:15 am **Session 3: Small molecule-mediated switches (continued)**

11:15 am **Henry A. Lester**, California Institute of Technology
Two projects for genetic manipulation of neuronal activity

11:45 am **Peer Wulff**, University of Aberdeen
From synapse to behaviour: Rapid modulation of defined neuronal populations through engineered GABA-A receptors

12:15 pm Lunch

1:15 pm **Session 4: Temperature, peptides and toxins**
Chair: Julie Simpson

1:15 pm **Toshi Kitomoto**, University of Iowa
Targeted expression of the temperature-sensitive dynamin to study neural mechanisms of complex behavior in Drosophila

1:45 pm **Benjamin H. White**, National Institutes of Health
Acute activation of Drosophila neurons by temperature shift using the rat cold and menthol receptor, TRPM8.

2:15 pm **Michael N. Nitabach**, Yale School of Medicine
In vivo cell-specific pharmacological modulation of ion channels and neuropeptide receptors

2:45 pm Break

3:15 pm **Session 4: Temperature, peptides and toxins (continued)**

3:15 pm **Paul Garrity**, Brandeis University
Drosophila TRPA1: A regulator of fly thermotaxis that provides a tool for thermally stimulating neuronal activity

3:45 pm **Julie H. Simpson**, Janelia Farm Research Campus/HHMI
Temperature sensitive dominant negatives to manipulate neural activity in Drosophila

4:15 pm Discussion

4:45 pm Poster Reception

6:30 pm Dinner

8:00 pm Refreshments available at Bob's Pub

Wednesday, November 5th

7:30 am	Breakfast
9:00 am	**Session 5 - Applications**
9:00 am	**Susana Q. Lima**, Gulbenkian Institute for Science *In vivo electrophysiological identification of Channelrhodopsin2-tagged neuronal subpopulations*
9:30 am	**Leopoldo Petreanu**, Janelia Farm Research Campus/HHMI *Functional mapping of cortical circuits with subcellular resolution*
10:00 am	**Kristin Scott**, University of California, Berkeley *Taste recognition in Drosophila*
10:30 am	Break
11:00 am	Discussion and future directions
12:15 pm	Lunch (take out boxes from servery) and departure
12:30 pm	First shuttle to Dulles
1:15 pm	Second shuttle to Dulles
2:00 pm	Last shuttle to Dulles