Sunday, May 22nd

3:00 pm	Check-in
6:00 pm	Reception (Lobby)
7:00 pm	Dinner
8:00 pm	**Keynote Talk: Charles F. Stevens**, Salk Institute for Biological Studies *Rockel's principle revisited*
9:00 pm	Refreshments available at Bob's Pub

Monday, May 23rd

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

9:00 am **Session 1: Local processing I**
Chair: Rafael Yuste

9:00 am **Alex M. Thomson**, The School of Pharmacy, University of London
Local circuitry in neocortex and hippocampus

9:30 am **Arthur Konnerth**, Technical University Munich
Dendritic organization of sensory inputs to cortical neurons in vivo

10:00 am **David Ferster**, Northwestern University
Diverse mechanisms of contrast normalization in primary visual cortex

10:30 am Break

11:00 am **Session 2: Local processing II**
Chair: Rafael Yuste

11:00 am **Karel Svoboda**, Janelia Farm Research Campus/HHMI
The cortical networks underlying haptic object localization

11:30 am **Mitya Chklovskii**, Janelia Farm Research Campus/HHMI
Hold that thought: Neural circuits supporting persistent percepts

12:00 pm Panel Discussion

12:30 pm Lunch

2:00 pm **Session 3: Inhibtion**
Chair: David Ferster

2:00 pm **John Rubenstein**, University of California, San Francisco
Cortical interneuron generation and migration

2:30 pm **Rafael Yuste**, HHMI/Columbia University
A canonical microcircuit for inhibition: Dense inhibitory connectivity in neocortex

3:00 pm **Clay Reid**, Harvard Medical School
Function and connections of inhibitory interneurons in the mouse visual cortex

3:30 pm Break

4:00 pm **Session 4: Circuits**
Chair: David Ferster

4:00 pm **Liqun Luo**, HHMI/Stanford University
Mapping neural circuits with genetically controlled transsynaptic tracing

4:30 pm **David Kleinfeld**, University of California, San Diego
Touch is represented in coordinates normalized to the region of interest in an active sensory system

5:00 pm Panel Discussion

5:30 pm Poster Reception

7:00 pm Dinner

8:00 pm **Session 5: Short talks I**
Chair: Tony Movshon

8:00 pm **Hillel Adesnik**, University of California, San Diego
Excitatory and inhibitory circuits in the cortex governing interlaminar signal propagation

8:15 pm **Henry Lütcke**, Brain Research Institute
Impact of altered sensory experience on cortical network activity revealed by long-term calcium imaging

8:30 pm **Randy Bruno**, Columbia University
Effects and mechanisms of wakefulness on local cortical networks

8:45 pm Refreshments available at Bob's Pub

Tuesday, May 24th

7:30 am	Breakfast *(service ends at 8:45)*
9:00 am	**Session 6: Population coding** **Chair: Kathleen Rockland**
9:00 am	**Matteo Carandini**, University College London *The flexible code of a cortical population*
9:30 am	**John Maunsell**, HHMI/Harvard Medical School *A neuronal population measure of attention on individual trials*
10:00 am	**Eero P. Simoncelli**, HHMI/New York University *Optimal encoding and decoding in sensory neural populations*
10:30 am	Break
11:00 am	**Session 7: Visual coding** **Chair: Kathleen Rockland**
11:00 am	**Bruce Cumming**, National Institutes of Health *How the cortex adapts to the statistics of the environment: Evidence from binocular vision*
11:30 am	**Anitha Pasupathy**, University of Washington *More than meets the eye: Shape encoding under partial occlusion in primate visual cortex*
12:00 pm	Panel Discussion
12:30 pm	Lunch
1:00 pm	Tour *(optional – meet at reception)*
2:00 pm	**Session 8: Plasticity** **Chair: Clay Reid**
2:00 pm	**Ania Majewska**, University of Rochester *Microglial contribution to synaptic re-organization in the visual cortex in vivo*
2:30 pm	**Tobias Bonhoeffer**, Max Planck Institute of Neurobiology *How activity changes synapses in the mammalian brain*

3:00 pm	**Solange P. Brown**, Johns Hopkins School of Medicine *Deciphering the functional organization of cortical circuits through cell-type identity*
3:30 pm	Break
4:00 pm	**Session 9: Integration** **Chair: Clay Reid**
4:00 pm	**Gregory DeAngelis**, University of Rochester *What cortex does: Insights from studies of optimal multisensory cue integration*
4:30 pm	**Tony Movshon**, New York University *Cortical integration for encoding and decoding*
5:00 pm	Panel Discussion
5:30 pm	Poster Reception
7:00 pm	Dinner
8:00 pm	Refreshments available at Bob's Pub

Wednesday, May 25th

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

9:00 am **Session 10: Short talks II**
Chair: Alex Thomson

9:00 am **Yves Kremer**, Ecole Polytechnique Fédérale de Lausanne (EPFL)
Two-photon calcium imaging of barrel cortex during active whisker touch in awake head-restrained mice

9:15 am **Jennifer F. Linden**, University College London
Distinct simultaneous and delayed contextual effects in auditory cortical responses to complex sounds

9:30 am **Shaul Hestrin**, Stanford School of Medicine
Cholinergic synaptic transmission in the neocortex

9:45 am **Euiseok J. Kim**, University of California, San Diego
Molecular and genetic tools to study the function and organization of cortical circuits

10:00 am Break

10:30 am **Session 11: Large-scale organization**
Chair: Mitya Chklovskii

10:30 am **Kathleen S. Rockland**, RIKEN-MIT Center for Neural Circuit Genetics
Observations and inferences from long-distance (LD) cortical connections

11:00 am **Friedrich Sommer**, University of California, Berkeley
A principle of learning that allows different regions of the brain to communicate without loss of information

11:30 am **David C. Van Essen**, Washington University in St. Louis
Cortical organization and connectivity in human and macaque cortex

12:00 pm Panel Discussion / Final Remarks

12:30 pm Lunch and Departure (To-go boxes available in 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