Sunday, April 10

3:00 pm	Check-in
6:00 pm	Reception *(Lobby)*
7:00 pm	Dinner
8:00 pm	**Welcome and Opening Remarks**
8:05 pm	**Introduction of Keynote by Sydney Brenner**
8:10 pm	**Keynote Lecture: John G. White,** University of Wisconsin-Madison *The birth of connectomics*
9:10 pm	Refreshments available at Bob's Pub

NOTE:
Meals are in the **Dining Room**
Talks are in the **Auditorium**
Posters are in the **Lobby**

Monday, April 11

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

9:00 am **Session 1**
Chair: Winfried Denk

9:00 am **Kristen M. Harris**, University of Texas at Austin
Recognizing structural differences in synaptic efficacy

9:10 am **Harald F. Hess**, Janelia Research Campus/HHMI
Expanding FIBSEM capabilities for whole fly brain connectome

9:20 am **Kenneth J. Hayworth**, Janelia Research Campus/HHMI
Random access, parallel FIBSEM imaging of the Drosophila brain

9:30 am **Stephan Saalfeld**, Janelia Research Campus/HHMI
Artifact correction in large EM volumes

9:40 am **Graham W. Knott**, Ecole Polytechnique Federale de Lausanne (EPFL)
Ultrastructural analysis of the aging brain

9:50 am Break

10:40 am **Session 2**
Chair: Eve Marder

10:40 am **Juergen Tritthardt**, Max Planck Institute for Neurobiology
Speeding up SBEM data acquisition with piezo driven line scanning

10:50 am **Dirk Zeidler**, Carl Zeiss Microscopy
Advancing the throughput of a multi-beam SEM

11:00 am **Dan J. Bumbarger**, Allen Institute for Brain Science
Improvements in section handling for high throughput transmission electron microscopy

11:10 am **Shawn Mikula**, Max Planck Institute for Neurobiology
Mammalian whole-brain preparation for neural circuit reconstruction

11:20 pm **Sven Dorkenwald**, Max Planck Institute for Medical Research
An automated synaptic connectivity inference pipeline to generate annotated connectomes

11:30 am Short discussion or break for lunch

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

1:30 pm	**Session 3** **Chair: Mitya Chklovskii**
1:30 pm	**Edward S. Boyden**, Massachusetts Institute of Technology *Expansion microscopy*
1:40 pm	**JoAnn Buchanan**, Allen Institute for Brain Science *Protocol development for high throughput 3D electron microscopy*
1:50 pm	**Mark H. Ellisman**, University of California, San Diego *New labeling and imaging methods applied to multiscale and multimodal mapping of projections of melanopsin retinal ganglion cells to multiple brain regions*
2:00 pm	**Stephen J. Smith**, Allen Institute for Brain Science *Shotgun connectomics*
2:10 pm	**Rachel O. Wong**, University of Washington *Combined fluorescence imaging and serial block face scanning electron microscopy identifies a new cell type in the retina*
2:20 pm	Break
3:00 pm	**Session 4** **Chair: Viren Jain**
3:00 pm	**Alexander Borst**, Max Planck Institute of Neurobiology *Functional analysis of the fly's optic lobe connectome*
3:10 pm	**Lou K. Scheffer**, Janelia Research Campus/HHMI *Analysis of EM reconstructions*
3:20 pm	**Kara Fulton (Briggman Lab)**, NINDS/NIH *Species dependent wiring of direction selective circuitry in the mammalian retina*
3:30 pm	**Clay Reid**, Allen Institute for Brain Science *Anatomy and function of an excitatory network in the visual cortex*
3:40 pm	**Sebastian Seung**, Princeton University *Unbiased anatomical classification of retinal ganglion cells via serial electron microscopy*
3:50 pm	Break
4:15 pm	Discussion (Moderated by Winfried Denk)
5:30 pm	Poster reception
7:00 pm	Dinner
8:00 pm	**Keynote Lecture: Eve Marder**, Brandeis University *Going from the connectome to understanding circuit dynamics*
9:00 pm	Refreshments available at Bob's Pub

Tuesday, April 12

7:30 am	Breakfast *(service ends at 8:45am)*
9:00 am	**Session 5** **Chair: Gerry Rubin**
9:00 am	**Kevan AC Martin**, Swiss Federal Institute of Technology, Zurich *Brains as potential technology*
9:10 am	**Fabian Svara**, Max Planck Institute of Neurobiology *Modularity in the larval zebrafish spinal cord*
9:20 am	**Joergen M. R. Kornfeld**, Max Planck Institute of Neurobiology *Connectomic analysis of zebra finch HVC*
9:30 am	**Kevin Boergens**, Max Planck Institute for Brain Research *Local connectome statistics in mouse barrel cortex*
9:40 am	**Michale S. Fee**, Massachusetts Institute of Technology *High-resolution reconstruction of cortico-basal-ganglia circuits underlying vocal learning*
9:50 am	Break
10:40 am	**Session 6** **Chair: Fred Hamprecht**
10:40 am	**Marta Zlatic**, Janelia Research Campus/HHMI *Circuit principles of memory-based behavioral choice*
10:50 am	**Davi Bock**, Janelia Research Campus/HHMI *Reconstructions of neuronal connectivity in the mushroom body of Drosophila melanogaster from a whole-brain transmission electron microscopy volume*
11:00 am	**Shinya Takemura**, Janelia Research Campus/HHMI *FIB-SEM connectome reconstructions of the visual and olfactory centers of the Drosophila brain*
11:10 am	**Wei-Chung Allen A. Lee**, Harvard Medical School *Functional neuronal assemblies for sensory processing*
11:20 am	**Benjamin Titze**, Friedrich Miescher Institute for Biomedical Research *Towards structure-function analysis of higher olfactory circuits in zebrafish*
11:30 am	Short discussion or break for lunch
12:00 pm	Lunch *(service ends at 1pm)*
1:00 pm	Tour *(optional - meet at reception)*

2:00 pm	**Session 7** **Chair: Kevan Martin**
2:00 pm	**Rainer W. Friedrich**, Friedrich Miescher Institute for Biomedical Research *Reconstructing olfactory circuits and computations in zebrafish*
2:10 pm	**Christel Genoud**, Friedrich Miescher Institute for Biomedical Research *Conductive sample preparation for SBEM and applications in the zebrafish olfactory bulb*
2:20 pm	**Albert Cardona**, Janelia Research Campus/HHMI *Collaborative reconstruction of neural circuits with CATMAID*
2:30 pm	**Hanspeter Pfister**, Harvard University *High-throughput connectomics with MapRecurse*
2:40 pm	**Scott W. Emmons**, Albert Einstein College of Medicine *Whole-animal C. elegans adult connectomes*
2:50 pm	Break
3:30 pm	**Session 8** **Chair: Clay Reid**
3:30 pm	**Verena S. Kaynig**, Harvard University *Scaling up automatic neuron reconstruction to the cubic millimeter*
3:40 pm	**Stephen M. Plaza**, Janelia Research Campus/HHMI *Large-scale EM connectome reconstruction in the adult fly brain*
3:50 pm	**Jeff W. Lichtman**, Harvard University *Connectomics from the top down and/or the bottom up*
4:00 pm	**Dmitri Chklovskii**, Simons Center for Data Analysis *Derivation of neural circuits from the similarity matching principle*
4:10 pm	Break
4:30 pm	Discussion (Moderated by Gerry Rubin)
5:45 pm	Poster reception
7:00 pm	Dinner
8:00 pm	**Pietro V. De Camilli**, HHMI/Yale University *Taking a look at the inner world of neurons*
9:00 pm	Refreshments available at Bob's Pub

Wednesday, April 13

7:30 am	Breakfast
9:00 am	**Session 9** *(machine learning / segmentation)* **Chair: Stephan Saalfeld**
9:00 am	**Moritz Helmstaedter**, Max Planck Institute for Brain Research *Connectome phenotypes in the cerebral cortex*
9:10 am	**Fred A. Hamprecht**, University of Heidelberg *Automated tracing: Learning from few labels*
9:20 am	**Viren Jain**, Google *Automated reconstruction of EM connectomic data with large scale machine learning and computation*
9:30 am	**Srini C. Turaga**, Janelia Research Campus/HHMI *New machine learning algorithms for image segmentation, and statistical models for interpreting and connecting neural connectivity to neural activity*
9:40 am	**Anna Kreshuk**, University of Heidelberg *Exploiting prior knowledge for automated EM image analysis*
9:50 am	Break
10:30 am	**Session 10** **Chair: Kristen Harris**
10:30 am	**Michal Januszewski**, Google *Recurrent neural networks for EM data segmentation*
10:40 am	**Seymour Knowles-Barley**, Harvard University *Rhoana: Dense automatic neuron annotation - case studies*
10:50 am	Closing Discussion and Final Remarks
11:30 am	Lunch and Departure
12:00 pm	First shuttle to Dulles
1:00 pm	Second shuttle to Dulles
2:00 pm	Last shuttle to Dulles