Sunday, November 8

3:00 pm  Check-in
6:00 pm  Reception (Lobby)
7:00 pm  Dinner

8:00 pm  Welcome and Opening Remarks
8:05 pm  Keynote: John O'Keefe, University College London
          Can entorhinal grid cells provide the metric for the cognitive map?

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
Hippocampal-Entorhinal Complexities: Maps, Cell Types and Mechanisms

Monday, November 9

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

9:00 am  Session 1  
Chair: Eva Pastalkova

9:00 am  **Howard Eichenbaum**, Boston University  
*Hippocampal-entorhinal ‘complexity’: The key to mapping memories*

9:20 am  **Loren M. Frank**, HHMI/University of California, San Francisco  
*A hippocampal network dedicated to spatial coding during immobility*

9:40 am  **Serena M. Dudek**, National Institute of Environmental Health Sciences, NIH  
*Social and novel contexts modify hippocampal CA2 representations of space*

10:00 am  **Jozsef Csicsvari**, Institute of Science and Technology Austria  
*Activation of medial entorhinal cells during a spatial working memory task*

10:20 am  Break

11:00 am  Session 2  
Chair: Brenda Bloodgood

11:00 am  **James J. Knierim**, Johns Hopkins University  
*Hippocampal Computations: Entorhinal Inputs to CA1 Outputs*

11:20 am  **Laura Colgin**, The University of Texas at Austin  
*Spatial sequence coding differs during slow and fast gamma rhythms in the hippocampus*

11:40 am  **David Foster**, Johns Hopkins University  
*The mechanisms and functions of hippocampal place cell sequences*

12:00 pm  **Andre Fenton**, New York University  
*The dynamic structure of cognition: If space were time?*

12:20 pm  Lunch (service ends at 1:00pm)

2:00 pm  Session 3  
Chair: Giorgio Ascoli

2:00 pm  **Nelson Spruston**, Janelia Research Campus/HHMI  
*Neuronal complexity and diversity in the hippocampus*

2:20 pm  **Thomas Klausberger**, Medical University of Vienna  
*Neuronal circuit operations along the septo-temporal axis of the CA1 hippocampus*

11/4/15
Hippocampal-Entorhinal Complexities: Maps, Cell Types and Mechanisms

2:40 pm  **Stefan Remy**, German Center for Neurodegenerative Diseases
*Subcortical circuits controlling locomotor activity and hippocampal function*

3:00 pm  **Sandro Romani**, Janelia Research Campus/HHMI
*Associative neural network model for storage and retrieval of time-varying stimuli*

3:20 pm  Break

3:50 pm  **Session 4**  
**Chair: Lisa Giocomo**

3:50 pm  **Brenda L. Bloodgood**, University of California, San Diego
*Transcriptionally regulated inhibitory circuit plasticity in the mouse hippocampus*

4:10 pm  **Hannah Monyer**, Medical Faculty of Heidelberg University and DKFZ
*GABAergic neurones control the activity of spatial coding and synchronous network activity in the hippocampal-entorhinal formation thereby affecting spatial learning*

4:30 pm  **Ivan Soltesz**, Stanford School of Medicine
*Spatiotemporal organization of hippocampal inhibitory-excitatory microcircuits*

4:50 pm  Short break

5:05 pm  **Poster Blitz! (5 min / 3 slides each)**  
**Chair: Nelson Spruston**

**Dmitriy Aronov**, Princeton University  
**Giorgio Ascoli**, George Mason University  
**Simon Chamberland**, Universite Laval  
**Falko Fuhrmann**, German Centre for Neurodegenerative Diseases  
**Abhilasha Joshi**, University of Oxford  
**Daniel Justus**, German Centre for Neurodegenerative Diseases  
**Kenneth Kay**, University of California, San Francisco  
**Yiding Li**, Chinese Academy of Sciences  
**Ayelet Sarel**, Weizmann Institute of Science  
**Junghyup Suh**, Massachusetts Institute of Technology  
**Yingxue Wang**, Janelia Research Campus/HHMI

6:05 pm  Poster Reception

7:30 pm  Dinner

8:30 pm  **Keynote: Edvard Moser**, Norwegian University of Science and Technology
*Grid cells and the entorhinal map of space*

9:30 pm  Refreshments available at Bob’s Pub

11/4/15
Tuesday, November 10

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

9:00 am  **Session 5**  
Chair: James Knierim

9:00 am  **Neil Burgess**, University College London  
*Environmental anchoring of head direction in a computational model of retrosplenial cortex*

9:20 am  **Lisa Giocomo**, Stanford School of Medicine  
*Calculating the algorithms of spatial maps*

9:40 am  **Andreas V. Herz**, Ludwig-Maximilians-Universität München  
*Decoding the population activity of grid cells across multiple spatial scales*

10:00 am  **Ila Fiete**, University of Texas at Austin  
*The circuit mechanisms of grid cell activity.*

10:20 am  Break

10:50 am  **Session 6**  
Chair: Judit Makara

10:50 am  **Michael Brecht**, Humboldt-Universitat zu Berlin  
*A grid cell grid*

11:10 am  **Takashi Kitamura**, Massachusetts Institute of Technology  
*Complementary roles of multiple medial entorhinal cortex inputs*

11:30 am  **Michael E. Hasselmo**, Boston University  
*Grid cells and the coding of space and time in entorhinal cortex*

11:50 am  **John Lisman**, Brandeis University  
*Grid cells, place cells, and the sense of place: Fitting the pieces of the puzzle together*

12:10 pm  **Clifford Kentros**, Norwegian University of Science and Technology  
*Transgenic investigation of the neural circuitry of memory*

12:30 pm  Lunch *(service ends at 1pm)*

1:15 pm  Tour *(optional – meet at reception)*
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Chair</th>
<th>Speaker and Affiliation</th>
<th>Presentation Title</th>
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<tbody>
<tr>
<td>2:15 pm</td>
<td>Session 7</td>
<td>Dmitriy Aronov</td>
<td>Mayank R. Mehta, University of California, Los Angeles</td>
<td>Contribution of visual and locomotion cues to hippocampal spatial and directional selectivity</td>
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<tr>
<td>2:35 pm</td>
<td></td>
<td>Jerome Epsztein</td>
<td>Institut de Neurobiologie de la Méditerranée</td>
<td>Influence of visual cues on the use of idiothetic or allocentric strategies for spatial position coding in virtual linear mazes</td>
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<tr>
<td>2:55 pm</td>
<td></td>
<td>Cynthia F. Moss</td>
<td>Johns Hopkins University</td>
<td>Bat hippocampal place field tuning depends on sonar sample rate</td>
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<tr>
<td>3:15 pm</td>
<td></td>
<td>Nachum Ulanovsky</td>
<td>Weizmann Institute of Science</td>
<td>Neural basis of 3D goal-directed navigation in bats</td>
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<td>3:35 pm</td>
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<td>Break</td>
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<tr>
<td>4:05 pm</td>
<td>Session 8</td>
<td>Albert Lee</td>
<td>Matthew Wilson, Massachusetts Institute of Technology</td>
<td>Hippocampal-VTA interactions during spatial choice behavior, quiet wakefulness, and sleep</td>
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<td>4:25 pm</td>
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<td>George Dragoi</td>
<td>Yale School of Medicine</td>
<td>Neuronal ensembles underlying internally-generated representations</td>
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<td>4:50 pm</td>
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<td>Rosa Cossart</td>
<td>Institut de Neurobiologie de la Méditerranée</td>
<td>Internally recurring hippocampal sequences as a population template of spatio-temporal information</td>
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<td>5:10 pm</td>
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<td>Andres Grosmark</td>
<td>Columbia University</td>
<td>De novo versus preconfigured replay of experience by distinct subpopulations of hippocampal neurons</td>
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<tr>
<td>5:30 pm</td>
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<td>Eva Pastalkova</td>
<td>Janelia Research Campus/HHMI</td>
<td>Episodic memory encoding by hippocampal neurons</td>
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<td>5:50 pm</td>
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<td>Poster Reception</td>
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<td>7:15 pm</td>
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<td>Dinner</td>
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<td>8:15 pm</td>
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<td>Refreshments available</td>
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Wednesday, November 11

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

9:00 am  Session 9  
Chair: Laura Colgin

9:00 am  Judit K. Makara, Institute of Experimental Medicine, Hungary  
*Location-dependent synaptic plasticity rules by dendritic spine cooperativity*

9:20 am  Steven A. Siegelbaum, Columbia University  
*Refining memories through the cortico-hippocampal circuit*

9:40 am  Jeff Magee, Janelia Research Campus/HHMI  
*Novel place field formation in hippocampal area CA1*

10:00 am  Albert Lee, Janelia Research Campus/HHMI  
*Intracellular features of hippocampal activity in novel and familiar environments*

10:20 am  Break

10:50 am  Session 10  
Chair: Jeff Magee

10:50 am  Mark J. Schnitzer, HHMI/Stanford University  
*Long-term refinement of CA1 hippocampal ensemble representations of associations between reward and spatial location*

11:10 am  Attila Losonczy, Columbia University  
*Functional imaging of hippocampal microcircuits in behaving mice*

11:30 am  Cristina Domnisoru, Princeton University  
*Monosynaptic inputs to hippocampal place cells*

11:50 am  Christoph Schmidt-Hieber, University College London  
*Active dendrites promote robust grid cell firing*

12:10 pm  Lunch and Departure

1:00 pm  First shuttle to Dulles  
2:00 pm  Second shuttle to Dulles  
3:00 pm  Last shuttle to Dulles