

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**

Monday, November 9

Talks are 15 minutes +
5 minutes for Q&A

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

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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-Universität 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*)

Hippocampal-Entorhinal Complexities: Maps, Cell Types and Mechanisms

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

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