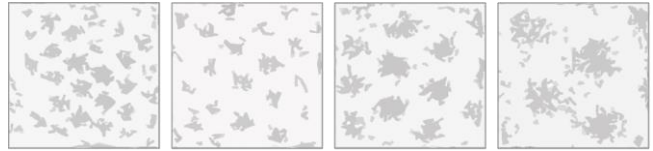


Sainsbury Wellcome Centre
 25 Howland Street
 London W1T 4JG



Monday, May 21 2018

9.00 – 9.10	Introduction	Caswell Barry
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9.10 – 10.50	Session 1: Grid cells, a metric for space?	Chair: Caswell Barry / John O'Keefe
	Edvard Moser	Low-dimensionality of entorhinal position maps: Grid cells and object-vector cells
	Francesca Sargolini	TBA
	Guifen Chen	Spatial cells in 2D virtual reality
	Julija Krupic	Local transformations of the hippocampal cognitive map
	Kia Hardcastle	Exploring the mixed, heterogeneous, and adaptive code for navigation in medial entorhinal cortex

10.50 – 11.30	Coffee break	
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11.30 – 13.10	Session 2: Non-local coding of grid cells	Chair: Mona Garvert
	Freyja Olafsdottir	Entorhinal replay as a function of experience
	Jozsef Csicsvari	Grid cells and spatial memory
	Mike Hasselmo	Neural coding of space and time in entorhinal cortex
	Elizabeth Buffalo	Spatial and mnemonic representations in the monkey entorhinal cortex
	Christian Doeller	Hexadirectional signals in fMRI, MEG and LFP for vision and navigation

13.10 – 14.40	Lunch break	
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14.40 – 16.20	Session 3: Grid cells across dimensions and modalities	Chair: Freyja Olafsdottir
	Nachum Ulanovsky	Neural codes for 3D space and long-distance navigation in the hippocampal formation of bats
	Kate Jeffery	Interacting egoentric and allocentric reference frames for spatial coding
	Chantal Stern	fMRI Studies of memory and navigation
	David Tank	A map-like organization of grid cell phase in the medial entorhinal cortex
	Dennis Chan	VR-based testing of entorhinal cortex function in prodromal Alzheimer's disease

16.20 – 17.10	Data blitz (10 talks)
17.10 – 19.00	Poster session
19.00	Dinner

Tuesday, May 22 2018

9.00 – 10.40	Session 4: Theoretical models for grid cell formation and operation	Chair: Kimberly Stachenfeld
	Neil Burgess	Place & grid cells: combining environmental & self-motion inputs to location
	Ila Fiete	The neural population dynamics of a canonical cognitive circuit
	Andrea Banino & Benigno Uribe	Vector-based navigation using grid-like representations in artificial agents
	Andreas Herz	Burst firing in medial entorhinal cortex
	Dori Derdikman	I'm not lost for I know where I am. But however, where I am may be lost - on the formation and readout of the cognitive map

10.40 – 11.20	Coffee break
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11.20 – 13.00	Session 5: Grid cell coding for abstract space	Chair: Tim Behrens
	Ida Momennejad	Sculpting Cognitive Maps and Task Space: Multi-scale Predictive Representations Shape Memory and Planning
	Mona Garvert	Spatial codes beyond space: Mapping conceptual knowledge in the service of flexible behaviour
	Nico Schuck	Sequential reactivation of partially observable task states in the human hippocampus
	Kim Stachenfeld	Compression by grid cells to support downstream reinforcement learning

13.00 – 14.20	Lunch break
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14.20 – 15.20	Panel discussion	Chair: John O'Keefe
	Elizabeth Buffalo, Ila Fiete, Edvard Moser, Nachum Ulanovsky, Francesca Sargolini Nicolas Schuck	

15.20 – 15.40	Closing remarks
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16.00	Drinks and nibbles
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