Oxford Autumn School in Neuroscience 2025

Blakemore Lecture Theatre, Sherrington Building, Sherrington Rd, Oxford OX1 3PT

Thursday 9th October

09.15 Welcome: Associate Professor Miriam Klein-Flügge, Chair Autumn School in Neuroscience

Translational neuroscience: what can we learn from the animal model?

Chair: Professor Rogier Mars, Centre for Integrative Neuroimaging, Nuffield Department of Clinical Neurosciences, University of Oxford

09.30 - 10.10	Professor Leah Krubitzer, Laboratory of Evolutionary Neurobiology, University of California, Davis
	Combinatorial creatures: Cortical plasticity within and across lifetimes
10.10 - 10.50	Professor, Dr. Nicola Palomero-Gallagher, Cécile & Oskar Vogt Institute of Brain Research, University of Düsseldorf
	Cross species analyses of receptor architecture
10.50 - 11.30	Professor Zoltan Moltán, Department of Physiology, Anatomy, and Genetics, University of Oxford
	Altered transient cortical circuits as an underlying cause of cognitive dysfunctions
11.30 - 12.10	Dr Jason Lerch, Wellcome Centre for Integrative Neuroimaging, University of Oxford
	Assigning Targetable Molecular Pathways to Transdiagnostic Subgroups Across Autism and Related Neurodevelopmental Disorders
12.10 - 13.30	Break

Motivated behaviour at different timescales

Chair: Associate Professor Miriam Klein-Flügge, Department of Experimental Psychology, University of Oxford

13.30 - 14.10	Professor John Salamone, Department of Psychological Sciences, University of Connecticut
	Exertion of effort over time: The role of dopamine in motivational decision-making in health and pathology
14.10 - 14.50	Professor Camilla Nord, MRC Cognition and Brain Sciences Unit, University of Cambridge
	The influence of bodily signals on motivation and mental health
14.50 – 15.30	Dr Jan Grohn, Department of Experimental Psychology, University of Oxford
	Mechanisms of task-independent motivation in the macaque cortex
15.30 - 16.10	Associate Professor Miriam Klein-Flügge, Department of Experimental Psychology, University of Oxford
	Human Motivation Across Timescales: Subcortical-cortical Circuits and Relationships with Mental Health

Friday 10th October

Building and using internal world models

Chair:	**Associate Professor Helen Barron, Nuffield Department of Clinical Neurosciences, University of Oxford**
09.30 - 10.10	Associate Professor H. Freyja Ólafsdóttir, Donders Centre for Neuroscience & Donders Institute for Brain, Cognition and Behaviour
	What can development tell us about the neuronal code for spatial memory?
10.10 - 10.50	Dr Eleanor Spens, Sainsbury Wellcome Centre, University College London
	Learning to imagine: Generative models and offline learning
10.50 - 11.30	Associate Professor Helen Barron, Nuffield Department of Clinical Neurosciences, University of Oxford
	Building deep internal models during periods of rest and sleep
11.30 - 12.10	Dr Matthew Nour, Department of Psychiatry, Oxford
	Making the invisible, visible. Decoding cognitive organisation in psychiatry
12.10 - 13.20	Break

Circuits for visual learning & decision-making

Chair:	**Associate Professor Armin Lak, Department of Physiology, Anatomy, and Genetics, University of Oxford**
13.20 - 14.00	Professor Andrea Benucci, School of Biological and Behavioural Sciences, Queen Mary University of London
	Unifying Sensory, Cognitive, and Motor Processing Through Hierarchical Predictive Coding in the Mouse Posterior Cortex
14.00 - 14.40	Prof. Laura Busse, Faculty of Biology, Ludwig-Maximilians-Universität, Munich
	Effects of corticothalamic feedback on responses in visual thalamus
14.40 - 15.20	Dr Rebecca Jordan, Centre for Discovery Brain Sciences, Uni
	Circuit mechanisms of predictive visuomotor learning in mouse V1
15.20 - 16.00	Associate Professor Armin Lak, Department of Physiology, Anatomy, and Genetics, University of Oxford
	Circuits for visual learning & decision-making
16.00 - 16.15	Closing remarks