**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, Departments of Psychiatry and 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