



Oxford Autumn School in Neuroscience 2024

Goss Lecture Theatre, Medical Sciences Teaching Centre, South Parks Road, Oxford. OX1 3PL

Monday 7th October

09.15 Welcome: Professor Masud Husain, Chair Autumn School in Neuroscience

Brain Development

Chair: Professor Zoltán Molnár, Department of Physiology, Anatomy, and Genetics, University of Oxford

09.30 - 10.10 Professor Željka Krsnik, University of Zagreb School of Medicine

Early regional patterning and laminar dynamics in the developing human cerebral cortex

10.10 - 10.50 Dr Linna Zhou, Ludwig Institute for Cancer Research, University of Oxford

3D printing cortical columns

10.50 - 11.30 Professor Rebecca Slater, Department of Paediatrics, University of Oxford

Understanding the mechanisms that drive the development of pain perception in the human infant

11.30 - 12.10 Madeleine Wyburd, Department of Computer Science, University of Oxford

Automated grading of fetal cortical development using deep-learning algorithms from 3D ultrasound scans

12.10 - 13.30 Lunch break

Anxiety

Chair: Assoc. Professor Polly Waite, Department of Experimental Psychology, University of Oxford

13.30 - 14.10 Assoc. Professor Laurel Morris, Icahn School of Medicine at Mount Sinai, New York

Pathological anxiety: insights from cognitive neuroscience, high field neuroimaging, and digital phenotyping

14.10 - 14.50 Dr Alexandra Pike, Department of Psychology, University of York

Can we use computational psychiatry to understand anxiety?

14.50 – 15.30 Professor Michelle Craske, Anxiety and Depression Research Centre, UCLA

Fear extinction translational models for optimizing exposure therapy

15.30 - 16.10 Assoc. Professor Eleanor Leigh, Department of Experimental Psychology, University of Oxford

Adolescent social anxiety disorder: developing effective and accessible treatment.





Tuesday 8th October

Frontal Lobe Interactions

Chair: Professor Matthew Rushworth, Department of Experimental Psychology, University of Oxford

09.30 - 10.10 Dr Katsuhiko Miyazaki, Okinawa Institute of Science and Technology

Serotonin - the neural mechanisms of optimism and pessimism

10.10 - 10.50 Dr Nima Khalighinejad, Department of Experimental Psychology, University of Oxford

Dorsal raphe nucleus and prefrontal cortical interactions in the control of behaviour changes in human and non-human primates

10.50 - 11.30 Dr Thomas Akam, Department of Experimental Psychology, University of Oxford

Frontal lobes and neuromodulators

11.30 - 12.10 Professor Valerie Voon, Department of Psychiatry, University of Cambridge

Interrogating impulsivity: insights from neuromodulation

12.10 - 13.20 Lunch break

Dementia and Neurodegeneration

Chair: Professor Masud Husain, Nuffield Department of Clinical Neurosciences and Department of Experimental Psychology, University of Oxford

13.20 - 14.00 Professor Karen Duff, Director of the UK Dementia Research Institute, UCL

Unravelling the role of tau tangles in neurodegeneration

14.00 - 14.40 Professor Liz Coulthard, Translational Health Sciences, University of Bristol Medical School

Sleep, cognition and dementia

14.40 - 15.20 Dr Maura Malpetti, Department of Clinical Neurosciences, University of Cambridge

Inflammation in neurodegeneration: a key player in movement disorders and dementia

15.20 - 16.00 Professor Masud Husain, Nuffield Department of Clinical Neurosciences and Department of Experimental Psychology, University of Oxford

What does the human hippocampus do?

16.00 - 16.15 Closing remarks