FULL CONFERENCE **PROGRAMME**

Monday 2nd September 2024

Time	Session/Activity	Venue
14:00 - 16:00	Arrival, Registration and Welcome Refreshments	Great Hall
16:00 - 16:15	Opening Welcome - Alicia Hidalgo	Bramall
16:15 - 17:00	**Session 1 - Developmental and cellular neuroscience** Chairs: Guy Tear and Vilaiwan Fernandes 16:15 - 16:30 - **Alicia Donoghue** - Precise spatio-temporal dynamics of Hedgehog and Notch signalling mediate cell-fate decisions (O1) 16:30 - 16:45 - **Adam Elkin** - How Neuronal Stem Cells Acquire and Maintain their Identity (O2) 16:45 - 17:00 - **Jeff Lee** - The Imp and Syp RNA interactomes reveal a network of temporal regulators of Drosophila brain development (O3)	Bramall
17:00 - 17:45	**Plenary Talk 1 - Bassem Hassan - Time to Connect** The EMBO Keynote Lecture Chair: Guy Tear	Bramall
18:00 - 20:00	Welcome Reception with Hot Food Included	Great Hall
17:30 - 22:00	Cashless Bar Open	Great Hall

Tuesday 3rd September 2024

Time	Session/Activity	Venue
8:30 - 9:00	Arrival Refreshments	Great Hall
9:00 - 9:45	**Plenary Talk 2 - Florence Besse - Regulating RNA in the spatial dimension in the Drosophila brain** Chair: Matthias Soller	Bramall
9:45 - 10:30	**Session 2 - Developmental and cellular neuroscience** Chairs: Guy Tear and Vilaiwan Fernandes 9:45 - 10:00 - **Samuel Vernon** - Spontaneous neurotransmitter release is regulated by Unc-5 (O4) 10:00 - 10:15 - **Dario Lasser** - Molecular mechanisms controlling microtubule organization and abundance at the Drosophila neuromuscular junction (O5) 10:15 - 10:30 - **Lora Fahdan** - A systematic exploration of the intrinsic mechanisms controlling axon growth during development (O6)	Bramall
10:30 - 11:00	Refreshment Break	Great Hall
11:00 - 11:45	**Session 3 - Developmental and cellular neuroscience** Chairs: Yun Fan and Vilaiwan Fernandes 11:00 - 11:15 - **Johann Markovitsch** - Never too late to get it right: Dynamic adhesion between lineage-related neurons organizes Drosophila brain circuit asymmetry. (O7) 11:15 - 11:30 - **Elisabeth Kamper** - The role of thioredoxin peroxidase in the developing Drosophila CNS during oxidative stress (O8) 11:30 - 11:45 - **Suchet Nanda** - Kon-RTK crosstalk controls the development of axon wrapping glia in Drosophila (O9)	Bramall

11:45 - 12:30	**Session 4 - Brain Homeostasis & Metabolism** Chairs: Yun Fan and Gaynor Smith 11:45 - 12:00 - **Celia Barredo** - The conserved AstA/Ptth neuroendocrine axis is required for starvation resistance in adult Drosophila (O10) 12:00 - 12:15 - **Diana Knoblochova** - Ecdysteroid signaling in energy metabolism and obesity development in flies on high-calorie diets (O11) 12:15 - 12:30 - **Thomas Vaccari** - Hecw controls neuronal homeostasis by promoting the liquid state of ribonucleoprotein particles and autophagy (O12)	Bramall
12:30 - 14:00	Lunch and Posters	Great Hall
13:00 - 14:00	**Early Career Workshop** Chairs: Carolina Rezaval and Natalia Sanchez Soriano **Anissa Kempf** (Universität Basel) **Andrew Lin** (University of Sheffield) **Lisa Scheunemann** (Freie Universität Berlin)	Bramall
14:00 - 14:45	**Plenary Talk 3 - Irene Miguel-Aliaga - Gut feelings** Chair: Yun Fan	Bramall
14:45 - 15:30	**Session 5 - Brain Homeostasis & Metabolism** Chairs: Matthias Landgraf and Gaynor Smith 14:45 - 15:00 - **Pierre-Yves Plaçais** - Diverting glial glycolytic flux towards mushroom body neurons: a memory-fuelling role of CRH-like neuropeptide signalling (O13) 15:00 - 15:15 - **Joseph Bateman** - The neurological basis of mitochondrial stress signalling (O14) 15:15 - 15:30 - **Jingyi Long** - A conserved epilepsy-associated gene co-expression module in Drosophila converges on increased AMPK signaling (O15)	Bramall

15:30 - 16:00	Refreshment Break	Great Hall
16:00 - 16:15	**Talks by Sponsors** 16:00 - 16:05 - **Biologix Limited** 16:05 - 16:10 - **Qidong Fungene Biotechnology Co., Ltd** 16:10 - 16:13 - **Andor** 16:13 - 16:16 – **BFKLab**	Bramall
16:15 - 17:00	**Session 6 - Brain Homeostasis & Metabolism** Chairs: Thomas Riemensperger and Gaynor Smith 16:15 - 16:30 - **Pierre-yves Musso** - Taste regulation of immunity (O16) 16:30 - 16:45 - **Ellen McMullen** - Metabolic regulation of the central nervous system during infection (O17) 16:45 - 17:00 - **Nina Surina** - A novel trehalose sensor to study carbohydrate transport kinetics in the nervous system (O18)	Bramall
17:00 - 17:30	Business Meeting	Bramall
17:00 - 19:30	**Poster Session with Refreshments** Click here to view today's posters	Great Hall

Wednesday 4th September 2024

Time	Session/Activity	Venue
8:30 - 9:00	Arrival Refreshments	Great Hall
9:00 - 9:45	**Plenary Talk 4 - Fen-Biao Gao - Pathogenic Mechanisms of Frontotemporal Dementia and ALS: Insights from Drosophila and iPSC Models** Chair: Richard Tuxworth	Bramall
9:45 - 10:30	**Session 7 - Brain disease, injury, ageing** Chairs: Richard Tuxworth and Lukas Neukomm 9:45 - 10:00 - **Mirjam Adams** - Unravelling the role of insulin signalling in a Drosophila model of Gaucher and Parkinson's diseases (O19) 10:00 - 10:15 - **Haifa Alhadyian** - Understanding neuronal vulnerability during ageing: the central roles of microtubules (O20) 10:15 - 10:30 - **Marije Been** - A forward genetic screen implicates the RAS/MAPK pathway attenuator Pebbled in motor neurodegeneration (O21)	Bramall
10:30 - 11:00	Refreshment Break	Great Hall
11:00 - 11:45	**Session 8 - Brain disease, injury, ageing** Chairs: Richard Tuxworth and Lukas Neukomm 11:00 - 11:15 - **Christa Rhiner** - Unravelling conserved repair circuits in the fly brain (O22) 11:15 - 11:30 - **Federico Marcello Tenedini** - Axon length-dependent synapse loss is mediated by inflammatory cytokine unpaired 3 via phagocytic glia recruitment (O23) 11:30 - 11:45 - **Bente Winkler** - Macrophage invasion into the Drosophila brain requires JAK/STAT dependent MMP activation in the blood-brain barrier (O24)	Bramall

11:45 - 12:30	**Session 9 - Brain disease, injury, ageing** Chairs: Natalia Sanchez-Soriano and Lukas Neukomm 11:45 - 12:00 - **Abigail Wilson** - Enhanced cholinergic tone restores motor circuit functionality in Drosophila and mouse models of paroxysmal dyskinesia (O25) 12:00 - 12:15 - **Michael Galko** - ILP4 and Inr differentially regulate Paclitaxel-induced nociceptive hypersensitivity in Drosophila larvae (O26) 12:15 - 12:30 - **Teresa Niccoli** - Xbp1 modulates neuronal vulnerability to C9orf72-linked repeat expansion toxicity (O27)	Bramall
12:30 – 13:15	**Plenary Talk 5 - Hongyan Wang - Waking up "sleeping" neural stem cells** Chair: Natalia Sanchez-Soriano	Bramall
13:15 - 14:15	Lunch	Great Hall
14:15 - 22:30	Outing to Stratford-upon-Avon - Dinner not included	

Thursday 5th September 2024

Time	Session/Activity	Venue
8:30 - 9:00	Arrival Refreshments	Great Hall
9:00 - 9:45	**Plenary Talk 6 - Lars Chittka - Social insects - ancient civilisations?** Chair: Carolina Rezaval	Bramall
9:45 - 10:30	**Session 10 - Gene expression and molecular neuroscience** Chairs: Matthias Soller and Natalia Sanchez-Soriano 9:45 - 10:00 - **Aaron Allen** - Transcriptional diversity of rare cell types underlying sexually dimorphic behaviours. (O28) 10:00 - 10:15 - **Guiyi Li** - The Toll adaptor Wek is a partner of Yki driving adult neurogenesis and gliogenesis (O29) 10:15 - 10:30 - **Francisco Antonio Martin** - Searching for a conserved transcriptional memory trace (O30)	Bramall
10:30 - 11:00	Refreshment Break	Great Hall
11:00 - 11:45	**Session 11 - Gene expression and molecular neuroscience** Chairs: Matthias Soller and Natalia Sanchez-Soriano 11:00 - 11:15 - **Julie Secombe** - Transcriptional regulation of neuronal development and function by the histone demethylase KDM5 (O31) 11:15 - 11:30 - **Sophie Waldron** - Single cell transcriptomics reveal molecular correlates of protein hunger. (O32) 11:30 - 11:45 - **Lukas Neukomm** - Local translation sustains synaptic function in impaired Wallerian degeneration (O33)	Bramall

11:45 - 12:30	**Session 12 - Neural circuits & behaviour** Chairs: Thomas Riemensperger and Moshe Parnas 11:45 - 12:00 - **Megan Day** - Competition Fuels Risk-Taking by Inhibiting Threat-Induced Serotonin Pathways (O34) 12:00 - 12:15 - **Anna Hobbiss** - Actively Frozen - a novel pattern of leg muscle activity reveals flexible freezing states and anticipates movement onset in Drosophila melanogaster (O35) 12:15 - 12:30 - **Dennis Goldschmidt** - Multiple navigational strategies contribute to balancing exploration and exploitation during local search (O36)	Bramall
12:30 - 14:00	Lunch and Posters	Great Hall
13:00 – 14:00	**Practical workshop: Bridging Connectomics and transctiptomics** David Osumi-Sutherland For more information on this workshop, please click here	G30
14:00 – 14:45	**Plenary Talk 7 - Bruno Van Swinderen - The predictive fly brain** Chair: Thomas Riemensperger	Bramall
14:45 – 15:30	**Session 13 - Neural circuits & behaviour** Chairs: Carolina Rezaval and Moshe Parnas 14:45 - 15:00 - **Marion Silies** - Heterogeneous synaptic connectivity in the visual system – causes and consequences (O37) 15:00 - 15:15 - **Tihana Jovanic** - Neural circuit mechanisms underlying flexible sensorimotor decisions in Drosophila (O38) 15:15 - 15:30 - **Marta Costa** - Comparing male and female connectomes to quantify stereotypy and sexual dimorphism (O39)	Bramall

15:30 – 16:00	Refreshment Break	Great Hall
16:00 – 16:15	**Talks by Sponsors** 16:00 - 16:03 - **Cairn Research** 16:03 - 16:06 - **DroBot Biotechnology Co., Ltd.** 16:06 - 16:09 - **RxCelerate** 16:09 - 16:12 - **GenetiVision** 16:12 - 16:15 - **Novogene Co., Ltd.**	Bramall
16:15 – 17:00	**Session 14 - Neural circuits & behaviour** Chairs: Carolina Rezaval and Moshe Parnas 16:15 - 16:30 - **Davide Raccuglia** - Sensory filtering in the tired and sleeping brain (O40) 16:30 - 16:45 - **Cheng Huang** - Dopamine-mediated interactions between short- and long-term memory dynamics in Drosophila Mushroom Body (O41) 16:45 - 17:00 - **Ishaan Kapoor** - Distributed Octopamine signalling prioritises expression of recently learned information (O42)	Bramall
17:00 – 17:05	Prizes Awarded for NeuroFly Bags and T-Shirts	Great Hall
17:05 – 19:00	**Poster Session with Refreshments** Click here to view today's posters	Great Hall
19:15 – 00:00	Conference Dinner	Botanical Gardens

Friday 6th September 2024

Time	Session/Activity	Venue
8:30 - 9:00	Arrival Refreshments	Great Hall
9:00 - 9:45	**Plenary Talk 8 - Gaia Tavosanis - Exploring the landscape in the mushroom body calyx** Chair: Matthias Landgraf	Bramall
9:45 - 10:30	**Session 15 - Plasticity and Remodelling** Chairs: Matthias Landgraf and Christa Rhiner 9:45 - 10:00 - **Medha Raman** - Glutamate receptors interact with transcription factors to regulate synaptic scaling (O43) 10:00 - 10:15 - **Cathy Gouelle** - The putative monocarboxylate transporter CG8028 regulates synaptic activity through glutamate receptors at the postsynapse (O44) 10:15 - 10:30 - **Sayaka Eno** - Octopamine signaling regulates intracellular active zone heterogeneity depending on nutritional states (O45)	Bramall
10:30 - 10:45	**Talks by Sponsors** 10:30 - 10:33 - **Pavel Itskov** 10:33 - 10:36 - **PHCbi** 10:36 - 10:39 - **WellGenetics** 10:39 - 10:42 - **Zanitiks** 10:42 - 10:45 - **Zeiss**	Bramall
10:45 - 11:15	Refreshment Break	Great Hall
11:15 - 12:00	**Session 16 - Plasticity and Remodelling** Chairs: Alicia Hidalgo and Christa Rhiner	Bramall

	11:15 - 11:30 - **Maria Fernanda Ceriani** - (Ultra) structural plasticity in adult pacemaker neurons (O46) 11:30 - 11:45 - **Sofia Bandao** - Homeostatic feedbacks at central synapses support background invariant odor representations (O47) 11:45 - 12:00 - **Andrew C Lin** - Contradictory homeostatic plasticity in an inhibitory feedback circuit (O48)	
12:00 – 12:45	**Session 17 - Plasticity and Remodelling** Chairs: Alicia Hidalgo and Christa Rhiner 12:00 - 12:15 - **Chien-Chun Chen** - Sleep Deprivation Impairs Pattern Separation and Neural Coding in the mushroom body of Drosophila melanogaster (O49) 12:15 - 12:30 - **Büşra Coban** - Unlocking Visual Pathways: Enhanced Visual Learning Through Olfactory Deprivation in Drosophila (O50) 12:30 - 12:45 - **Anna Parsons** - The Toll adaptor Wek drives regenerative neurogenesis following CNS injury (O51)	Bramall
12:45 – 13:00	**Closing Remarks and announcing Neurofly2026** Chair: Alicia Hidalgo	Bramall
13:00 – 14:00	Neurofly2024 and Birmingham Centre for Neurogenetics Social **Lunch** - All Welcome	Great Hall
14:00 – 15:30	**Birmingham Centre for Neurogenetics launch** 14:00-14:15 - Opening Address by Prof Bill Bloss, Head of LES, to inaugurate the Centre, to inaugurate the Centre.	Bramall

	Scientific taster from across our community: 14:15 - 14:35 - **Stephane De Brito** (School of Psychology): "Enhancing NeuroImaging Genetics through Meta-Analysis (ENIGMA)" 14:35-14:55 - **Carolina Rezaval** (School of Biosciences): "Is love blind? Mating proximity blinds threat perception" 14:55- 15:15 - **Zubair Ahmed** (Neuroscience & Opthalmology, Medical Health Sciences): "Inhibiting components of the DNA damage pathway promotes functional recovery after CNS injury in Drosophila and rodents" 15:15-15:30 - Closing address by the Directors and keeping in touch: Alicia Hidalgo (Biosciences), Daniel Fulton (MDS) and Stephane De Brito (Psychology)	