

| Session 1 | | Welcome and PI Lightning Talks | |
|---------------|-----------------------------|---|--|
| 9.00 - 10.20 | | Physiology Lecture Theatre | |
| 9.00 - 9.10 | Andrea Dimitracopoulos | Welcome from the PDN Symposium organising committee | |
| 9.10 - 9.20 | Fabian Grabenhorst | Neurophysiology of reward and social cognition | |
| 9.20 - 9.30 | Thorsten Boroviak | How to build a primate: Towards a synthetic model for primate embryogenesis | |
| 9.30 - 9.40 | Julija Krupic | Local transformations of the hippocampal cognitive map | |
| 9.40 - 9.55 | Cambridge Electronic Design | Sponsor Talk | |
| 9.55 - 10.05 | Clare Buckley | Building and Breaking Epithelial tubes: an Optogenetic approach | |
| 10.05 - 10.15 | Golnar Kolahgar | Micro-environmental control of gut renewal in Drosophila | |
| 10.15 - 10.20 | Joo-Hyeon Lee | Lung stem cells and their dynamic niche in regeneration and injury repair. | |

10.20 - 10.50 **TEA & COFFEE BREAK @ EXPERIMENTAL CLASSROOM**

| Session 2 | | Mechanisms in Development | | |
|---------------|--------------------|-----------------------------|-----------------------|---|
| 10.50 - 12.25 | | Hodgkin-Huxley Seminar Room | | |
| | Presenter | | Supervisor | Title |
| 10.50 - 11.05 | Hannah Yong | Postdoc | Amanda Sferuzzi-Perri | Placental endocrine Igf2 deficiency programs insulin resistance in adult offspring |
| 11.05 - 11.20 | Charlotte Handford | 1st Year PhD | Magda Zernicka-Goetz | Morphogenetic events underlying symmetry breaking in peri- to post-implantation mouse embryo development |
| 11.20 - 11.45 | Georgina Blake | 3rd Year PhD | Erica Watson | Investigating the epigenetic mechanism behind transgenerational inheritance in germ cells of mice with abnormal folate metabolism |
| 11.45 - 12.10 | Shruti Singla | 3rd Year PhD | Magda Zernicka-Goetz | Elimination of aneuploid cells in the early mammalian embryo |
| 12.10 - 12.25 | Alexander Campbell | MPhil | Clare Baker | Electrosensory organ development and evolution: a comparative approach |

| Session 2 | | Immunology and Cell Migration | | |
|---------------|-----------------|-------------------------------|-------------------|--|
| 10.50 - 12.35 | | Bryan Matthews Seminar Room | | |
| | Presenter | | Supervisor | Title |
| 10.50 - 11.05 | Hazel Walker | 1st Year PhD | Milka Sarris | Development of CRISPR/Cas9 strategies for knock-in transgenesis and conditional gene inactivation in zebrafish neutrophils |
| 11.05 - 11.20 | Pedro Cunha | 1st Year PhD | Randall Johnson | Understanding the role of arginase and nitric oxide in CD8+ T cell function |
| 11.20 - 11.45 | Caroline Coombs | 3rd Year PhD | Milka Sarris | Neutrophils self-regulate their numbers and behaviour at sites of inflammation through collective chemokine receptor dynamics. |
| 11.45 - 12.10 | Iva Filipovic | 3rd Year PhD | Francesco Colucci | Ontogeny, cell identity and function of uterine Group 1 Innate Lymphoid Cells |
| 12.10 - 12.35 | Hugo Poplimont | 3rd Year PhD | Milka Sarris | Rapid propagation of calcium signals through connexins co-ordinates chemoattractant production, neutrophil chemotaxis and defence at sites of tissue damage. |

12.35 - 13.30 **LUNCH & SPONSOR EXHIBITIONS @ EXPERIMENTAL CLASSROOM**

| Session 3 | | Neurosignalling and Behaviour | | |
|---------------|------------------------|-------------------------------|-----------------|--|
| 13.30 - 14.55 | | Hodgkin-Huxley Seminar Room | | |
| | Presenter | | Supervisor | Title |
| 13.30 - 13.45 | Antoino Romero-Ruiz | Postdoc | Bill Colledge | Neural plasticity: Identification of a novel kisspeptin-signaling pathway in glial cells |
| 13.45 - 14.00 | Robert Hickman | 1st Year PhD | Wolfram Schultz | An auction task for single-trial recordings of subjective value in primates |
| 14.00 - 14.15 | Audrey Hay | Postdoc | Ole Paulsen | Activation of cortical layer 1 interneurons by higher-order thalamic afferents leads to UP-state termination via post-synaptic GABAB receptor activation |
| 14.15 - 14.40 | Shaun Kit Lung Quah | 3rd Year PhD | Angela Roberts | Role of the serotonin transporter in the amygdala in trait anxiety |
| 14.40 - 14.55 | Simone Ferrari-Toniolo | Postdoc | Wolfram Schultz | How neurons get me the best reward: an axiomatic approach |

| Session 3 | | Cardiometabolism and Tissue Regeneration | | |
|---------------|------------------------|--|----------------|---|
| 13.30 - 14.50 | | Bryan Matthews Seminar Room | | |
| | Presenter | | Supervisor | Title |
| 13.30 - 13.45 | Yanguo Niu | Postdoc | Dino Guissani | Cardio-protective Actions of Hydrogen Sulphide in the Developing Heart |
| 13.45 - 14.10 | Ross Lindsay | 3rd Year PhD | Andrew Murray | The Role of Inotropic and Metabolic Peptide Signalling in Protection Against Cardiac Ischaemia and Metabolic Syndrome |
| 14.10 - 14.25 | Inchul Cho | MPhil | Joo-Hyeon Lee | The role of Troy+ cells in the maintenance of alveolar epithelium |
| 14.25 - 14.50 | Lucia Cordero Espinoza | 3rd Year PhD | Meritxell Huch | The mesenchymal niche in ductal progenitor-driven liver regeneration |

14.50 - 15.10

TEA & COFFEE BREAK @ EXPERIMENTAL CLASSROOM

| Session 4 | | Neurophysiology and Disease | | |
|---------------|-------------------|-----------------------------|------------------------|--|
| 15.10 - 17.00 | | Hodgkin-Huxley Seminar Room | | |
| | Presenter | | Supervisor | Title |
| 15.10 - 15.25 | Melanie Jensen | Mphil | Caroline Williams-Gray | Investigating markers of T and B lymphocyte senescence in Parkinson's disease |
| 15.25 - 15.50 | Laith Alexander | 3rd Year PhD | Angela Roberts | The Primate Subgenual Anterior Cingulate Cortex and Anhedonia |
| 15.50 - 16.05 | Deborah Oakley | MPhil | Virginia Newcombe | Effects of decompressive craniectomy after traumatic brain injury |
| 16.05 - 16.20 | Eva Zacharioudaki | Postdoc | Sarah Bray | Monitoring the origin and progression of neural stem cell (NSC) derived tumours using a Drosophila model |
| 16.20 - 16.35 | Amar Sarkar | MPhil | Ole Paulsen | Leucine Sensing in Human Hypothalamic Neurons |
| 16.35 - 17.00 | Mark Burrell | 3rd Year PhD | Wolfram Schultz | Measuring Effort Disutility in Behaviour and Dopamine Neuron Activity of Non-Human Primates |

| Session 4 | | Developmental Signalling | | |
|---------------|-----------------------|-----------------------------|------------------------|---|
| 15.10 - 16.55 | | Bryan Matthews Seminar Room | | |
| | Presenter | | Supervisor | Title |
| 15.10 - 15.25 | Bethany Aykroyd | 1st Year PhD | Amanda Sferruzzi-Perri | Placental endocrine function and materno-fetal nutrient allocation during pregnancy |
| 15.25 - 15.40 | Wen Tong | 1st Year PhD | Dino Guissani | Impaired Uterine Perfusion with Placental Oxidative Stress in Chronically Hypoxic Ovine Pregnancy |
| 15.40 - 15.55 | Guy Blanchard | Postdoc | Benedicte Sanson | Radially-polarised cell behaviours drive tube budding from an epithelium |
| 15.55 - 16.10 | Efthimia Christoforou | 1st Year PhD | Amanda Sferruzzi-Perri | The impact of increased placental junctional zone <i>Igf2</i> on fetal resource allocation and adult offspring metabolism |
| 16.10 - 16.25 | Matteo Mole' | Postdoc | Magda Zernicka-Goetz | Integrin signalling in epiblast morphogenesis and cell survival |
| 16.25 - 16.40 | Torcato Martins | Postdoc | Sarah Bray | Insights on how membrane composition affects Notch signalling |
| 16.40 - 16.55 | Jyothi Jayaraman | 1st Year PhD | Francesco Colucci | Dissecting The Genetic Effects of KIR-HLA Association in Pregnancy at Higher Resolution |

from 17.00

CHAMPAGNE AND WINE RECEPTION @ EXPERIMENTAL CLASSROOM

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| Session 5 | | Carl-Philipp Heisenberg - Plenary lecture sponsored by Cambridge Electronic Design |
| 9.00 - 10.00 | Physiology Lecture Theatre | |
| | Professor Carl-Philipp Heisenberg | Interplay between actomyosin contraction and tight junction formation during zebrafish gastrulation |

10.00 - 10.20 **TEA & COFFEE BREAK @ EXPERIMENTAL CLASSROOM**

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|----------------------|------------------------------------|------------------------------|----------------------|--|
| Session 6 | | Embryonic Development | | |
| 10.20 - 12.05 | Hodgkin-Huxley Seminar Room | | | |
| | Presenter | | Supervisor | Title |
| 10.20 - 10.45 | Katerina Menelaou | 3rd Year PhD | Erica Watson | Multigenerational effects of abnormal folate metabolism on embryo growth and development in mice |
| 10.45 - 11.10 | Christos Kyprianou | 3rd Year PhD | Magda Zernicka-Goetz | Proamniotic cavity formation in the mouse embryo through rosette formation and resolution |
| 11.10 - 11.25 | Thomas Sharrock | 1st Year PhD | Benedicte Sanson | Elucidating the molecular basis of Drosophila embryo compartment boundary formation. |
| 11.25 - 11.50 | Lorenzo Orietti | 3rd Year PhD | Magda Zernicka-Goetz | <i>In vitro</i> size regulation in mouse double embryos |
| 11.50 - 12.05 | Tim Lohoff | 1st Year PhD | Jenny Nichols | Mechanism of lineage commitment during exit from pluripotency in vivo |

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|----------------------|------------------------------------|---|-------------------------|--|
| Session 6 | | Techniques and in vitro/in vivo models | | |
| 10.20 - 12.10 | Bryan Matthews Seminar Room | | | |
| | Presenter | | Supervisor | Title |
| 10.20 - 10.35 | Mewanthi Kaluthantrige Don | 1st Year PhD | Kevin O'Holleran | Development and characterisation of 3D liver models to investigate drug toxicity |
| 10.35 - 10.50 | Kelly Evans | 1st Year PhD | Joo-Hyeon Lee | Establishing an in vitro 3D-model system to investigate the functional role of alveolar progenitor cells in human lung disease |
| 10.50 - 11.15 | Afnan Azizi | 3rd Year PhD | Bill Harris | A diffusion model of interkinetic nuclear migration in zebrafish retina |
| 11.15 - 11:40 | Sohaib Abdul-Rehman | 3rd Year PhD | Kevin O'Holleran | Super-resolution microscopy beyond the coverslip |
| 11.40 - 11.55 | Kate Feller | Postdoc | Paloma Gonzalez-Bellido | A twinkle in the eye: Description of a novel photonic tapetum for improving bioluminescence detection |
| 11.55 - 12.10 | Laura Broutier | Postdoc | Meritxell Huch | Modelling Human Primary Liver Cancer in Organoid Cultures |

12.10 - 13.10 **LUNCH & SPONSOR EXHIBITIONS @ EXPERIMENTAL CLASSROOM**

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|----------------------|------------------------------------|---------------------------------|--------------------------|--|
| Session 7 | | Behavioural Neuroscience | | |
| 13.10 - 15.00 | Hodgkin-Huxley Seminar Room | | | |
| | Presenter | | Supervisor | Title |
| 13.10 - 13.25 | Fei-Yang Huang | 1st Year PhD | Wolfram Schultz | Neuronal representations of nutrient rewards and food choice in non-human primates |
| 13.25 - 13.40 | Rachel Rodrigues | MPhil | Karen Ersche | Does atomoxetine improve inhibitory control in cocaine addiction? |
| 13.40 - 13.55 | Emily Mort | 1st Year PhD | Abby Fowden (Emily Camm) | Behavioural and neurodevelopmental outcomes in a murine model of maternal obesity. |
| 13.55 - 14.10 | Janne Rozemarijn Smit | Visiting MPhil | Amanda Sferuzzi-Perri | Impaired Placental Endocrine Function: Behavioural Implications for the Offspring |
| 14.10 - 14.35 | Samuel Fabian | 3rd Year PhD | Paloma Gonzalez-Bellido | Tactics and Strategy at play in target interception by predatory flies |
| 14.35 - 15.00 | Konstantin Volkman | 3rd Year PhD | Wolfram Schultz | Revealed preferences for bundled rewards in humans |

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|----------------------|------------------------------------|-----------------------------------|-------------------|--|
| Session 7 | | Transcriptional regulation | | |
| 13.10 - 14.55 | Bryan Matthews Seminar Room | | | |
| | Presenter | | Supervisor | Title |
| 13.10 - 13.35 | Zoe Pillidge | 3rd Year PhD | Sarah Bray | The dynamic chromatin landscape on the express route to transcriptional activation |
| 13.35 - 13.50 | Giulia Antonazzo | 1st Year PhD | Nick Brown | Identifying novel pathway components by mining Drosophila melanogaster gene annotations |
| 13.50 - 14.15 | Mikel Mckie | 3rd Year PhD | Meritxell Huch | TET1 is crucial for liver regeneration mediated by adult ductal cells |
| 14.15 - 14.40 | Anastasiya Sybirna | 3rd Year PhD | Azim Surani | Exploring transcriptional regulators of human germ cell fate |
| 14.40 - 14.55 | Martin Minarik | Postdoc | Clare Baker | Investigating transcription factor hierarchies underlying the formation of hair cells versus electroreceptors in the lateral line system |

15.00 - 15.25

TEA & COFFEE BREAK @ EXPERIMENTAL CLASSROOM

| Session 8 | | Stem Cells and Differentiation | | |
|---|---------------------|--------------------------------|-----------------|---|
| 15.25 - 16.50 Hodgkin-Huxley Seminar Room | | | | |
| | Presenter | | Supervisor | Title |
| 15.25 - 15.40 | Jocelyn Tang | 1st Year PhD | Andrea Brand | Assessing the maintenance and effects of G0 and G2 cell-cycle arrest on neural stem cell quiescence |
| 15.40 - 15.55 | Luigi Aloia | Postdoc | Meritxell Huch | TET1 is required for de-differentiation of adult liver cholangiocytes to progenitor cells. |
| 15.55 - 16.20 | Stephanie Norwood | 3rd Year PhD | Andrea Brand | Stem Cell-Niche Interactions during Quiescence in the Drosophila Central Nervous System |
| 16.20 - 16.35 | Catherine Dabrowska | 1st Year PhD | Joo-Hyeon Lee | Elucidating cell fate decisions of lung progenitor cells during early oncogenic events |
| 16.35 - 16.50 | Jerome Bohere | Postdoc | Golnar Kolahgar | Deciphering integrin adhesion and signalling in Drosophila intestinal stem cells |

| Session 8 | | Neural Development | | |
|---|-------------------|--------------------|-----------------|--|
| 15.25 - 17.00 Bryan Matthews Seminar Room | | | | |
| | Presenter | | Supervisor | Title |
| 15.25 - 15.40 | Tess Liddell | MPhil | Andras Lakatos | Characterisation of Glial Cell Differentiation States in Human Cerebral Organoids |
| 15.40 - 16.05 | Ivan Dimov | 3rd Year PhD | Kristian Franze | Mechanically compliant devices for communicating with the peripheral nervous system. |
| 16.05 - 16.20 | Victoria Hodgson | 1st Year PhD | Steve Edgley | Auditory responses in the cerebellum |
| 16.20 - 16.45 | Sarah Foster | 3rd Year PhD | Kristian Franze | Chemical and mechanical signals interact to guide growing neurons |
| 16.45 - 17.00 | Tanja Fuchsberger | Postdoc | Ole Paulsen | Differences in primary neuron cultures from the left and the right hippocampus |

17.00 - 19.00

DRINKS RECEPTION AND PRIZES @ EXPERIMENTAL CLASSROOM

19.00 - 22.30

DINNER @ OLD DIVINITY SCHOOL, ST JOHN'S COLLEGE

