

1st day Thursday March 21st 2019

Opening session and Pls lightning talks (Physiology Lecture Theatre)

9h30- 10h25

	Opening remarks	9h30 - 9h35
Susanna Mierau	Network Development in Cortical Circuits and Disruption in Rett Syndrome and Autism	9h35 - 9h40
Sara Morais da Silva	Studying the link between tumorigenesis, metabolism and the cell cycle in <i>Drosophila melanogaster</i>	9h40 - 9h45
Emma Cahill	Do you fear what I fear? rodent ultrasonic vocalisations in fear conditioning	9h45 - 9h50
Bio-Techne, Sponsor talk	In situ validation and spatial mapping of diverse striatal cells identified by scRNA-seq in the mouse brain at single-cell resolution	9h50 - 10h
Elisa Galliano	Neuronal plasticity: beyond the usual suspects	10h - 10h05
Erica Watson	Transgenerational epigenetic inheritance in mice	10h05 - 10h10
Leila Muresan	Image analysis for fluorescence microscopy	10h10 - 10h15
Ewa Paluch	Mechanobiology of cell shape control	10h15 - 10h20
Margherita Yayoi Turco	Stem cell biology of the maternal-fetal interface of human pregnancy	10h20 - 10h25

Coffee break (Experimental Classroom)

10h25 - 11h

Session 1

11h - 12h10

Physiology and stem cells 1 (Bryan Matthews room)

Slatery, Erin	Towards the generation of chimaera-competent marmoset embryonic stem cells	11h - 11h15
Reiterer, Moritz	Organ-specific heterogeneity in endothelial cell hypoxia response	11h15 - 11h40
Siriwardena, Dylan Kassapa	Developing a platform for modeling primate placental development via generation and characterization of marmoset TSCs	11h40 - 11h55
Sowton, Alice	Metabolism of Obese Mitochondria with Inorganic Nitrate Supplementation – Preliminary Insights from Pilot Data	12h55 - 12h10

Developmental biology 1 (Hodgkin-Huxley room)

Campbell, Alexander Stuart	Identifying novel molecular mechanisms underlying lateral line sense organ development using an unbiased, comparative approach	11h - 11h15
Falo Sanjuan, Julia	Enhancer priming enables fast and sustained transcriptional responses to Notch signaling	11h15 - 11h40
Molè, Matteo	Integrin-mediated adhesion coordinates morphogenesis and survival of the epiblast upon implantation	11h40 - 11h55
Weberling, Antonia	Trophectoderm morphogenesis governs blastocyst remodelling upon implantation	11h55 - 12h10

Lunch break (Experimental Classroom)**12h15- 13h15****Session 2****13h15 - 14h45****Developmental biology 2 (Bryan Matthews room)**

Kyprianou, Christos	Sequential formation and resolution of rosettes drives formation of the pro-amniotic cavity in the early mouse embryo	13h15 - 13h30
Rodgers, Amanda	Placental Endocrine Malfunction Programs Metabolic Derangements in Offspring	13h30 - 13h45
Sanchez-Elexpuru, Gentzane	Zebrafish models of Multiple Sulfatase Deficiency	13h45 - 14h
Townson, Jonathan	Understanding Notch Intracellular Domain function and achieving precise spatial and temporal control of its release with optogenetics	14h - 14h15
Bergmann, Sophie	Unravelling the implanting primate embryo: SHOT-seq allows spatial transcriptome and methylome analysis	14h15 - 14h30
Greenhalgh, Ryan David	The role of viscoelasticity in axon guidance during development	14h30 - 14h45

Mechanisms of neural development 1 (Hodgkin-Huxley room)

Pillai, Eva	Mechanical regulation of chemical signalling in the developing Xenopus brain	13h15 - 13h40
Lau, Maggy Yu Hei	Morphological and Physiological Characterization of Identified Dopaminergic Neurons in the Mouse Olfactory Bulb and Midbrain	13h40 - 13h55
Supple, Jack	Binocular Fusion in Damselfly Descending Neurons	13h55 - 14h20
Badger, Benjamin	Autophagy in the brain	14h20 - 14h45

Poster session and coffee break (Experimental Classroom)**14h45 - 15h45****Plenary Session (Physiology Lecture Theatre)****15h45 - 17h**

Sponsor talk	Cambridge Electronic Design	15h45 - 15h55
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**Cambridge
Electronic Design
plenary talk:
Peter Lawrence**

Planar cell polarity, what it is, what it's for and something of how we think it works

16h - 17h

Wine reception (Experimental Classroom)**17h**

Session 3**9h30 - 10h40****Neurosignalling and Behaviour 1 (Bryan Matthews room)**

Banai Tizkar, Rana	The role of area 25 in producing anhedonia, its contribution to anxiety and its sensitivity to anti-depressants	9h30 - 9h45
Bujold, Philippe	Adaptive Economics: Exploring Choice Biases From the Brain's Perspective	9h45 - 10h10
Chaudhuri Vayalambro, Prannoy	Characterising shifts in grid cell firing fields	10h10 - 10h25
Seak, Leo Chi U	Neural responses of revealed preference theory	10h25 - 10h40

Mechanisms of neural development 2 (Hodgkin-Huxley room)

Sipkova, Jana	The mechano-responsiveness of ephrin/Eph signalling in the topographic mapping of the <i>Xenopus</i> optic pathway	9h30 - 9h45
Becker, Julia	Stiffness alterations in spinal cord injury	9h45 - 10h
López Ramírez, Ana	Felodipine induces autophagy and clears neurotoxic proteins in mice and fish with pharmacokinetics amenable to repurposing in humans.	10h - 10h15
Memon, Ahsan	Fast Whole-cell 3D Super-resolution Imaging	10h15 - 10h30
Dunn, Alexander William Edward	Characterising pathological changes to neuronal network development in Rett Syndrome	10h30 - 10h45

Coffee break (Experimental Classroom)**10h45 - 11h15****Session 4****11h15 - 12h35****Physiology and stem cells 2 (Bryan Matthews room)**

Judge, Leia	The long and the short of it: Uncovering the role of long non-coding RNAs in the regulation of <i>Drosophila</i> neuroblast proliferation.	11h15 - 11h30
Garraud, Tess	Antenatal Glucocorticoids: Studies in the Chicken Embryo	11h30 - 11h55
Ross, Connor	Bananas about hypoblast - The derivation and functional characterisation of marmoset hypoblast stem cells.	11h55 - 12h10
Capatina, Nadejda	Effect of Endoplasmic Reticulum Stress on Trophoblast Cell Lineage Differentiation	12h10 - 12h35

Neurosignalling and Behaviour 2 (Hodgkin-Huxley room)

Fuchsberger, Tanja	Neuromodulation of Spike Timing-Dependent Plasticity in the Hippocampus	11h15 - 11h30
Stawicka, Zuzanna Monika	The role of anterior and posterior orbitofrontal cortex in emotional regulation.	11h30 - 11h55

Khorisantono, Putu	Neuroimaging of nutrient reward value and its effect on eating behaviour	11h55 - 12h10
Champion, Andrew	Combining structural and activity imaging in larval <i>Drosophila</i>	12h10 - 12h35

Lunch break (Experimental Classroom) 12h45 - 13h45

Session 5

13h45 - 15h

Physiology and stem cells 3 (Bryan Matthews room)		
Strawbridge, Stanley	How does FGF signalling regulate the founding lineages of the mouse embryo?	13h45 - 14h
Mackinlay, Kirsty	Developing an in vitro Model of Post-Implantation Human Embryogenesis- Human Hypoblast Stem cell line derivation	14h - 14h15
Arman, Diana	Systemic and local signalling in nutrition-dependent reactivation of neural stem cells in <i>Drosophila</i>	14h15 - 14h30
Habib, Zaki	Structural and functional roles of the S5-S6 extracellular loop of hNa _v 1.5 and β-subunits in Na ⁺ channel regulation	14h30 - 14h45
Pierson Smela, Merrick De Forest	Probing Gene Regulatory Networks in Human Primordial Germ Cell Specification	14h45 - 15h

Neurosignalling and Behaviour 3 (Hodgkin-Huxley room)		
Feord, Rachael	Simultaneous spectral stimulation and two-photon neural activity imaging in a <i>Drosophila</i> colour processing neuropile, the medulla	13h45 - 14h10
Manchishi, Stephen Malunga	Molecular Signatures of Hypothalamic <i>Kiss1</i> Neurons	14h10 - 14h35
Jarzebowski, Przemyslaw	Neuronal target-specific hippocampal memory functions	14h35 - 14h50
Li, Chenguang	A computational study of variability in the lamprey spinal cord	14h50 - 15h05

Poster session and coffee break (Experimental Classroom) 15h05 - 16h

Plenary Session (Physiology Lecture Theatre)

16h - 17h

**Foster talk:
Steve Wilson**

Breaking symmetry in the brain: from genes to circuits and behaviour

Drinks and Prizes (Experimental Classroom) 17h - 17h30

BioTechne Symposium Dinner (St Barnabas Church)

19h - 22h