

30th HEAD GROUP MEETING

Understanding Normal and Abnormal Development of Head Structures

29-30th January 2018

UCL Great Ormond Street Institute of Child Health London WC1N 1EH

Kennedy Lecture Theatre

Monday 29th January

12:00-13:30 **REGISTRATION – POSTER DISPLAY SET UP**

13:25 - 13:30 Welcome address – **Prof. Cheryl Tickle** (University of Bath)

Chairperson **John Griffin** (Department of Craniofacial Development and Stem Cell Biology, King's College London Dental Institute, London, UK)

13:30 -14:10 **Michael Dixon** (Faculty of Biology, Medicine & Health, University of Manchester, UK)
The role of periderm during embryogenesis

14:10 -14:30 **Nozie D. Aghaizu** (UCL Institute of Ophthalmology, London, UK)
Dynein 1 is required for the correct retinal positioning of apico-basally oscillating rod photoreceptor nuclei

14:30 - 14:50 **Surangi N. Perera** (Department of Physiology, Development & Neuroscience, University of Cambridge, UK)
The development of olfactory ensheathing cells from the neural crest

Flash presentations

Florence Giger (Centre for neurodevelopmental disorders, King's College London)
Cell-cell interactions during forebrain morphogenesis

Rachel Moore (UCL Institute of Child Health, London, UK)

Determining neuronal polarity in the developing zebrafish spinal cord

Banafshe Navid (Genetics of Deafness The Wolfson Centre for Age-Related Diseases, King's College London, UK)

Inner Hair Cell Auditory Neuropathy in Khl18 Mutant Mice

14:50 -15:10 *The role of Gas1 in murine salivary gland development*

Olivia Gillham (Developmental Biology & Cancer Programme, UCL GOS Institute of Child Health, London, UK)

Modelling human CNS developmental pathologies using 3D hydrogel cultures

Knufer Athene (Centre for Developmental Neurobiology, King's College London, UK)

The role of cadherins in zebrafish ocular motor nucleus formation

Doris Cuckovic (Department of Craniofacial Development and Stem Cell Biology, King's College London Dental Institute, London, UK)

The role of Gas1 in murine salivary gland development

15:10 - 16:20 **TEA and POSTER SESSION 1**

Chairperson **Alessandro Fantin** (UCL Institute of Ophthalmology, London, UK)

16:20 - 16.40 **Vineetha Vijayakumar** (Center for Developmental Neurobiology, King's College London, London SE1 1UL, UK)
Establishing the inside out axis of the vertebrate brain

16:40 - 17:00 **Zucchelli Eleonora** (UCL Institute of Child Health, London, UK)
Normal and abnormal human ear development - differentiation potential of microtic chondroblasts

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- 17:00 – 17:20 **William B. Barrell** (Department of Craniofacial Development and Stem Cell Biology, King's College London Dental Institute, London, UK)
Novel missense mutation in FUZZY results in craniosynostosis
- 17:20 – 18:00 **Lynda Erskine** (University of Aberdeen, UK)
Neuro-vascular interactions regulating optic pathway development
- 18:00 **WINE RECEPTION**

Tuesday 30th January

- Chairperson **Monica Tambalo** (The Francis Crick Institute, London, UK)
- 9:15 - 9:55 **Francesca Peri** (EMBL, Heidelberg, Germany)
The brain under surveillance: the role of neuronal-microglial interactions in the development and repair of the CNS
- 9:55 - 10:15 **Katja Maierbrugger** (Wolfson Centre for Age Related Diseases King's College London, London UK)
mTOR signalling and Unkempt regulate neurogenesis in the Drosophila central nervous system
- 10:15 - 10:35 **Rafael Kochaj** (Wolfson Centre for Age Related Diseases King's College London, London UK)
Investigating the Role of Peroxisome Defects in Hearing Impairment
- 10:35 - 10:50 **COFFEE BREAK**

- Chairperson **Natacha Agabalyan** (UCL GOS Institute of Child Health, London, UK)
- 10:50 – 11:10 **Kit-Yi Leung** (Developmental Biology & Cancer Programm, UCL GOS Institute of Child Health, London, UK)
Neural tube closure and brain development depends on the Glycine Cleavage System
- 11:10 – 11:30 **Araz Ahmed** (King's College London, London, UK)
WNT signalling maintains ductal progenitor cells in adult salivary glands
- Flash presentations
- 11:30 – 12:00 **Giulia Selmin** (UCL Institute of Child Health, London, UK)
Driving the myogenic differentiation of hPSCs through the forced expression of key transcription factors of the developmental pattern
- Roberto Oleari** (Department of Pharmacological and Biomolecular Science, University of Milan, Italy)
Dysfunctional SEMA3G signaling underlies familial Hypogonadotropic Hypogonadism and ctive GnRH neuron migration
- Alessia Caramello** (The Francis Crick Institute, London, UK)
Role of SOX9 in neuroepithelial progenitors
- Jenny Lange** (Developmental Biology & Cancer Programme, UCL GOS Institute of Child Health, London, UK)
Human Dystrophin Expression in Neural Stem Cells and the Developing Brain
- Andy Symonds** (Centre for Developmental Neurobiology, King's College London, UK)
How do you build a vertebrate neuroepithelium?

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Morag Lewis (Genetics of Deafness Wolfson Centre for Age Related Diseases King's College London, London UK)
Hearing impairment due to mutations of the Mir183/96/182 microRNA cluster suggest both loss and gain of function effects

12:00 - 13:50 **LUNCH AND POSTER SESSION 2**

Chairperson **Luis Carretero Rodriguez** (University of Sussex, UK)

13:50 – 14:30 **Marysia Placzek** (University of Sheffield, UK)
Development of the hypothalamus

14:30 – 14:50 **Lisa Hentschel** (Developmental Biology & Cancer Programme, UCL GOS Institute of Child Health, London, UK)
Using gene editing of human pluripotent stem cells to investigate PAX6 function in retinal development

14:50 – 15:10 **Yushi Redhead** (King's College London and The Francis Crick Institute, London, UK)
Craniofacial Dysmorphology in mouse models of Down syndrome

15:10 – 15:30 **Benediktas Kaminskis** (School of Biological Sciences, University of East Anglia, Norwich, UK)
Regulation of postnatal hypothalamic neurogenesis by Fibroblast growth factor (FGF) signaling

15:30 – 15:55 **TEA BREAK**

Chairperson **Elisa Martelletti** (Wolfson Centre for Age Related Diseases King's College London, London UK)

16:00 - 16:20 **Zain Alhasem** (Randall Division of Cell & Molecular Biophysics, King's College, London, UK)
Molecular mechanisms regulating Trunk Neural Crest Migration

16:20 - 16:40 **Jordi Cayuso** (The Francis Crick Institute, London, UK)
Genetic dissection of Eph/Ephrin signalling during hindbrain segmentation

16:40 – 17:00 **Magdalena Žak** (UCL Ear Institute, University College London, London, UK)
Elucidating the molecular signals guiding the formation of inner ear sensory organs

Chairperson **Patrizia Ferretti** (Developmental Biology & Cancer Programme, UCL GOS Institute of Child Health, London, UK)

Peter Thorogood Memorial Lecture

17:00 - 18:00 **Professor William Harris**
University of Cambridge, UK
Retinogenesis in the zebrafish

18:00 - 18:10 **Best Talk and Best Poster Prize Award**
