Anatomical Society
Great Britain & Ireland

Winter Meeting of the Anatomical Society of Great Britain and Ireland

with a symposium on

Development of the Human Neocortex

Tuesday 5th – Thursday 7th January 2010

St Anne's College, Oxford

PROGRAMME & ABSTRACT BOOK

PROGRAMME

Tuesday 5th January

From 09.00 **Registration in the Foyer of Mary Ogilvie Lecture Theatre**
From 09.00 **Posters to be mounted in Foyer A, Ruth Deech Building**

Educational Symposium: *Neuro-Imaging and Education*

(Organiser: Professor Bernard Moxham)
Mary Ogilvie Lecture Theatre

Chair: Bernard Moxham

Officer: Stephen McHanwell

09.30-10.10
E1 Development of the BrainTower Neuroanatomical Models System
Richard Green
Department of Anatomy, University College Cork, Ireland

10.10-10.50
E2 Anatomo-functional neuroimaging: Recent advances with MRI.
Jean-Baptiste Poline
NeuroSpin – CEA, France

10.50-11.20 Coffee, Foyer A Ruth Deech Building

11.20-12.00
E3 Title TBC
John Pickard
University of Cambridge, UK

Education Symposium Related Oral Communications

12.00-12.15
E4 Approaches to learning anatomy across different healthcare professions.
C.F.Smith[1], S.McHanwell[2], C.Martinez[3].
[1] Centre for Learning Anatomical Sciences, School of Medicine, University of Southampton; [2] Oral Biology, School of Dental Sciences, University of Newcastle; [3] Facultad de Odontología, Universidad Complutense Madrid.

12.15-12.30
E5 Testing and Assessment of Anatomical knowledge in UK and Ireland: data from the ASGBI questionnaire
A.R.M.Chirculescu[1], J.F.Morris[2]
[1]Dept. of Anatomy, C. Davila University, Bucharest, Romania, ASGBI Senior Visiting Fellow in Dept. of Physiology, Anatomy and Genetics, University of Oxford; [2]Dept. of Physiology, Anatomy and Genetics, University of Oxford

12.30-12.45
E6 Teaching to Learn: incorporating models of teaching and learning into anatomical pedagogy
R.C. Aland[1], J. Porter[2], P. Adds[1] and E. Gosden[3],
[1]Division of Basic Medical Sciences (Anatomy), St George's, University of London, UK; [2]Centre for Medical and Healthcare Education, St George's, University of London, UK; [3]CSS Data Management Ltd

12.45-13.00

E7 **Are we teaching sufficient anatomy at medical school? A cohort follow-up after two years of clinical practice**

H. Wingate[1], J.E.F. Fitzgerald[2]
[1]University of Nottingham Medical School and [2]Medical Education Unit, University of Nottingham, UK

13.00-14.00 Student's Forum, Seminar Room 8
THE WORLD OF JOURNAL EDITING - GILLIAN MORRISS-KAY

13.00-14.00 Buffet Lunch, Foyer B Ruth Deech Building

Symposium: *Development of the Human neocortex*

(Organisers: Gavin Clowry and Zoltán Molnár)
Mary Ogilvie Lecture Theatre

Symposium Session 1
Chair: Gavin Clowry

14.00-14.35

S1 **Evolutionary perspectives of Cajal-Retzius cells and the cortical hem**

Gundela Meyer
Departamento de Anatomia, Facultad de Medicina, Universidad de La Laguna, Tenerife, Spain

14.35-15.10

S2 **Early human forebrain development**

Irina Bystron
Department of Physiology, Anatomy and Genetics, University of Oxford, UK

15.10-15.45

S3 **Gene expression mapping of human forebrain development**

Susan Lindsay
Institute of Human Genetics, Newcastle University

15.45-16.15 **TEA**

Symposium Session 2
Chair: Irina Bystron

16.15-16.50

S4 **Identification of cortical genes displaying human-specific patterns of expression and evolution**

Pierre Vanderhaeghen
IRIBHM, Université Libre de Bruxelles (ULB), Brussels, Belgium

16.50-17.25

S5 **Populations of interstitial neurons in adult and fetal human telencephalon**

Miloš Judaš
Croatian Institute for Brain Research, School of Medicine, University of Zagreb, Zagreb, Croatia

Poster Session (presenters to stand by their posters)

17.30-19.30 Foyer A, Ruth Deech Building

Wednesday 6th January

Symposium Session 3
Chair: Zoltan Molnár

09.00-09.40

S6 **Development of the human cerebral cortex**
Pasko Rakic
Yale University
Sponsored by the Jenkinson Memorial Fund, University of Oxford

09.40-10.15

S7 **Abnormal Development of the Human Fetal Cerebral Cortex**
Waney Squier
University of Oxford

Symposium Related Oral Communications
Officer: Arthur Butt

10.15-10.30

S8 **Role for *Gli3* in the development of the thalamocortical and corticothalamic tracts in mice**
Thomas Theil
Centre for Integrative Physiology, Hugh Robson Building, University of Edinburgh, Edinburgh EH8 9XD, United Kingdom

10.30-10.45

S9 **Graded expression patterns of ROBO1, SRGAP1 and CTIP2 reveal early evidence of an anterior location of the motor cortex during fetal human development**
Bui Kar Ip
Institute of Neuroscience, and Institute of Human Genetics, Newcastle University, Newcastle-upon-Tyne, United Kingdom.

10.45-11.15 Coffee, Foyer A Ruth Deech Building

Symposium Session 4
Chair: Pasko Rakic

11.15-11.50

S10 **Abnormal cortical development: patterns of functional organization and epileptogenesis**
Renzo Guerrini
Pediatric Neurology Unit and Laboratories,Children's Hospital A. Meyer-University of FlorenceViale Pieraccini 24, 50139 Firenze, Italy

11.50-12.25

S11 **When cortical development goes wrong: schizophrenia as a neurodevelopmental disease of microcircuits**
Laurence Garey
Lausanne, Switzerland

12.30-14.00 Buffet Lunch, Foyer B Ruth Deech Building

Symposium Session 5
Chair: Renzo Guerrini

14.00-14.35
S12 Developmental compartmentalisation in the human subplate
Gavin Clowry[1] and Zoltan Molnár[2]
[1]Institutes of Human Genetics and Neuroscience, Newcastle University, UK; [2]Department of Physiology, Anatomy and Genetics, University of Oxford, UK;

14.35-15.10
S13 Development of axonal pathways in the human foetal brain: histochemical characterization and diffusion tensor imaging
Ivan Kostović
Croatian Institute for Brain Research, School of Medicine, University of Zagreb, Croatia

15.10-15.45
S14 Neuroimaging in the newborn: Cortical development, phenotype and behaviour
Petra Hüppi
Division of Development and Growth, Dept. of Pediatrics University Children's Hospital, Geneva, Switzerland

15.45-16.15 **TEA**

Symposium Related Oral Communication
Officer: Arthur Butt
16.15-16.30
S15 The distribution of microglial cells in the periventricular white matter of the immature human brain: A combined magnetic resonance imaging (MRI) and histological approach
Veena Supramaniam
Perinatal Imaging Group, Robert Steiner MR Unit, MRC Clinical Sciences Centre and Wigglesworth Perinatal Pathology Services, Hammersmith Hospital, Imperial College London, United Kingdom

Symposium Session 6
Chair: Ivan Kostović
16.30-17.05
S16 Imaging Selective Vulnerability in the Developing Nervous System
Donna Ferriero
San Francisco

17.05-17.40
S17 Early microglial colonisation of the developing human telencephalon and its involvement in white matter damage in the preterm infant
Catherine Verney
UMR 676 Inserm- Paris 7 University, Robert Debré Hospital, 75019-Paris

17.40-18.15
S18 MR imaging of perinatal brain injury
Mary Rutherford
Robert Steiner MR Unit, MRC Clinical Sciences Centre, Imperial College London

19.00 President's Reception, Foyer A, Ruth Deech Building

20.00 Conference Dinner, Dining Room

Thursday 7th January

Symposium Session 7
Chair: Susan Lindsay

09.00-09.35
S18 Brain barriers and growth factors in early human forebrain development
Kjeld Møllgård
Dept. of Cellular and Molecular Medicine, Developmental Biology Unit, University of Copenhagen, The Panum Institute, Blegdamsvej 3, DK-2200, Denmark

09.35-10.10
S19 Gradients of gene expression involved in setting up the early human cortical map
Nadhim Bayatti
Institute of Human Genetics and Institute of Neuroscience, Newcastle University, UK.

10.10-10.45
S20 Maturation of the visual brain: lessons from lesions
James Bourn
Monash

10.45-11.15 Coffee, Foyer A Ruth Deech Building

Symposium Session 8
Chair: Donna Ferriero

11.15-11.50
S21 Development and plasticity of the corticospinal system
Janet Eyre
Institute of Neuroscience, Newcastle University

11.50-12.25
S22 Reorganization after pre- and perinatal brain lesions
Martin Staudt
Clinic for Pediatric Neurology and Neurorehabilitation, Epilepsy Center for Children and Adolescents, Vogtareuth, Germany & Dept. Pediatric Neurology and Developmental Medicine, University Children's Hospital, Tübingen, Germany

12.30-13.30 **Anatomical Society AGM**

12.30-14.00 **Buffet Lunch, Foyer B Ruth Deech Building**

General Oral Communications
Chair: Susan Standring
Officer: Ceri Davies

14.00-14.15
G1 Fgf10-expressing tanycytes in the adult hypothalamus resemble neural stem cells and generate both neurons and glia in vivo
N. Haan[1], S. Bellusci,[2] and M.K. Hajihosseini[1]
[1]School of Biological Sciences, University of East Anglia, Norwich, NR4 7TJ, UK; [2]Children's Hospital Los Angeles, Los Angeles, USA

14.15-14.30
G2 TASK-1 channel expression and function in glial cells of the mouse CNS
V. Bay and A. Butt
Institute of Biomedical and Biomolecular Science (IBBS), School of Pharmacy and Biomedical Science, University of Portsmouth, UK

14.30-14.45
G3 Like a Hole in the Head; Development of cranial foramina in the chick embryo
S. E. Akbareian, A .P. Pitsillides, R. C. Fowkes and I. M. McGonnell
VBS Department, Royal Veterinary College, London

14.45-15.00
G4 Exploring Clinal Variation in the Morphology of Baboons (*Papio spp.*): A Geometric Morphometric Approach.
J. Dunn[1], A. Cardini[2] and S. Elton[3].
[1]HYMS, The University of Hull, Hull, UK; [2]Museo di Paleobiologia e dell'Orto Botanico, Universitá di Modena e Reggio Emilia, Modena, Italy; [3]Hull York Medical School, The University of Hull, Hull, UK.

15.15-15.30
G5 Evidence for a novel destructive mechanism in hyaline articular cartilage (HAC) involving extrusion of mineralised matrix from the articular calcified cartilage (ACC) and subchondral bone
[1]A. Boyde, [2] C.M. Riggs, [3]G.L. Pinchbeck and [3]P.D. Clegg,
[1] Barts and The London School of Medicine and Dentistry, Queen Mary University of London, London UK; [2]Hong Kong Jockey Club, Sha Tin Racecourse, Hong Kong, SAR China; [3]Musculoskeletal and Locomotion Research Group, School of Veterinary Sciences, University of Liverpool, UK.

15.30-15.45
G6 Digital densimetric analysis of the early stages in the development of the embryonic human central nervous system
A.R.M.Chirculescu[1,2], M. Chirculescu[1]
[1]Dept. of Anatomy, C. Davila University, Bucharest, Romania, [2]ASGBI Senior Visiting Fellow in Dept. of Physiology, Anatomy and Genetics, University of Oxford

15.45-16.00
G7 Limb Vein Pattern Analysis for Human Forensic Identification
H. Meadows
Centre for Anatomy and Human Identification, College of Life Sciences, JBC/WTB/MSI Complex, University of Dundee.

16.00-16.15

G8 Effect of Ethanolic Extract of Cannabis Sativa on Spermatogenesis of Adult Male Wistar Rats

A. I.'R. Abioye,A.O.Lawal,L.O.Oyeniyi, C. F.Bello,V. Ibrahim and K. A.Olarewaju
Department of Anatomy, Faculty of Basic Medical Sciences, College of Health Sciences, University of Ilorin,P.M.B.1515,ILORIN 240003, KWARA STATE, NIGERIA

End of Meeting