126th Meeting of the British Neuropathological Society

The View, Royal College of Surgeons of England, Lincoln's Inn Fields, London

WEDNESDAY 29th January, 2025

Symposium: Spatial Transcriptomics

Chairs: Dr Omer Bayraktar (Wellcome Sanger Institute; UK) and Dr Thomas Millner (Blizard Institute, QMUL; UK)

11:00	**Registration**
11:30-11:35	**Opening remarks**
11:35-12:05	**Prof Lucas Schirmer (UMM, Heidelberg; Germany):** Cell type mapping in inflamed muscle and brain tissues
12:05-12:35	**Dr Omer Bayraktar (Wellcome Sanger Institute; UK):** A spatiotemporal cancer cell trajectory underlies glioblastoma heterogeneity
12:35-13:05	**Prof Karen Duff (UK Dementia Research Institute):** Tau pathogenesis in FTD and AD
13:05-14:00	**Lunch**
14:00-14:30	**Prof Dieter Henrik Heiland (FAU, Erlangen, Germany):** Novel high-dimensional technologies for intra- and post-operative CNS tumour diagnostics
14:30-15:00	**Dr Spencer Watson (Ludwig Institute; Lausanne, Switzerland):** Investigating the role of fibrosis in glioblastoma recurrence with spatial multi-omics
15:00-15:30	**Prof Moritz Gerstung (DKFZ; Germany):** Spatial transcriptomics analysis of adult diffuse gliomas
15:30-15:35	**Concluding remarks**
15:35-16:00	**Coffee Break**
16:00-17:00	**Alfred Meyer Memorial Lecture – Prof David Ellison (St. Jude's Children's Research Hospital; USA):** The challenges of classifying brain tumors

THURSDAY 30th JANUARY 2025

08:00	**Registration**
08:50 - 09:00	**Opening of meeting** Professor Tammaryn Lashley, BNS President
09:00 - 10:15	**FIRST SCIENTIFIC SESSION – Brain Tumours**
	Chairs: Silvia Marino and Reena Kurian
09:00	**O1 Oncogenic extrachromosomal DNA amplification is associated with immune evasion in glioblastoma**
	Alhafidz Hamdan, Stuart Atkin, Alison Meynert, Steven Pollard, Colin Semple
09:15	**O2 Testing the effects of macrophage depletion upon schwannoma tumour proliferation and vascularisation**
	Elliot Kearney, Sylwia Ammoun, C. Oliver Hanemann, David Parkinson
09:30	**O3 Comparative analysis of PRC1 regulation in paediatric high grade gliomas**
	Alexandra Hadaway, Yunchen Xiao, Nicolae Radu Zabet, Silvia Marino, Sara Badodi
09:45	**O5 Characterisation of the m6A RNA methylome in glioma**
	Simon Deacon, Masar Radhi, Lauryn Walker, Jonathan Rowlinson, Simon Paine, Matthew Loose, Stuart Smith
10:00	**O6 Characterisation of chromatin reorganisation identifies novel patient-specific and subgroup-specific targets in glioblastoma**
	Niamh Baker, Khizra Maqsood, James Nicholson, Nicolae Radu Zabet, Silvia Marino
10:15 – 11:00	**Coffee break**
11:00– 12:30	**SECOND SCIENTIFIC SESSION – Neurodegeneration I** Chairs: Annelies Quegebuer and Steve Gentleman
11:00	**O7 Identification of spatially resolved and cell type specific molecular signatures in neurodegenerative movement disorders**
	Hemanth Nelvagal, Toby Curless, Nancy Chiraki, Raquel Real, Modesta Blunskyte, Daria Gavriouchkina, Mina Ryten, John Hardy, Zane Jaunmuktane
11:15	**O8 Immune receptor FcγRIIb facilitates pathologic α-Synuclein spreading in-vivo**
	James Hennegan, Jessica Teeling, Ali Roghanian
11:30	**O9 Deciphering differential neuronal vulnerability to alpha-synuclein pathology in Parkinson's disease and multiple system atrophy**
	Fernanda Valerio, Hemanth Nelvagal, Toby Curless, Nancy Chiraki, Raquel Real, Modesta Blunskyte, Daria Gavriouchkina, John Hardy, Zane Jaunmuktane

11:45 **O10 Investigating the Role of Aquaporin-4 Mediated Glymphatic Clearance in Parkinson's Disease**

Sophie K Llewellyn, Douglas M Lopes, Steve M Gentleman, Anthony H V Schapira, Mark F Lythgoe, **Ian F Harrison**

12:00 **O11 Splicing Dysregulation in Parkinson's Disease Pathogenesis Reveal Clathrin-mediated Endocytosis as Disease-relevant Pathway**

Kahrisan Kunasingam, **Karl Frontzek**

Flash Talks

12:15 **P25 NFATC1 and NFE2L2 show changes in DNA methylation, dysregulated co-operative transcription factor networks and astrocytic profiles in FTLD**

Naiomi Rambarack, Katherine Fodder, Yazead Buhidma, Jack Humphrey, Towfique Raj, Peter Heutink, Tammaryn Lashley, Conceicao Bettencourt

12:20 **P26 HERV-K in Amyotrophic Lateral Sclerosis. A postmortem human study**

Raquel Rosinha Mendes, Marta Garcia-Montojo, Roxana O. Carare, Ajay Verma

12:25 - 13:30 Lunch

13:30 - 14:30 POSTER DISCUSSION – odd numbered posters

14:30 - 16:00 THIRD SCIENTIFIC SESSION – Miscellaneous
Chairs: Ashirwad Merve and Olimpia Curran

14:30 **O12 Disruption of DNA methylation underpins the neuroinflammation induced by targeted CNS radiotherapy**

Thomas Millner, Pratistha Panday, Yunchen Xiao, James Boot, James Nicholson, Zsharmaine Arpe, Paul Stevens, Nadia Rahman, Xinyu Zhang, Charles Mein, Neil Kitchen, Andrew McEvoy, Edward McKintosh, Grainne McKenna, Dimitrios Paraskevopoulos, Rachel Lewis, Sara Badodi, Silvia Marino

14:45 **O13 Post-mortem validation of in vivo 18kDa Translocator Protein (TSPO) PET as a microglial biomarker**

Sasvi Wijesinghe, James Rowe, Hannah Mason, Kieren Allinson, Reuben Thomas, Davi Vontobel, Tim Fryer, Young Hong, Mehtap Bacioglu, Maria Grazia Spillantini, Jelle Van den Ameele, John O'Brien, Sanne Kaalund, Maura Malpetti, **Annelies Quaegebeur.**

15:00 **O14 Rethinking Multiple Sclerosis: An Overlooked Amyloidopathy?**

Jonathan Pansieri, Gabriele DeLuca

15:15 **O15 Changes in adrenergic and cholinergic receptors on human cerebral vessels. Implications for new therapeutic strategies in CAA.**

Maureen Gatherer, Louise Kelly, Laura Chinezu, Doina Manu, Emil Arbanasi, Eliza Arbanasi, Nicoleta Suciu, Scott Counts, **Roxana Carare**

15:30 **O16 Proportions of Basement Membrane Proteins in Cerebrovascular Smooth Muscle Cells after exposure to Amyloid Beta: Implications for Cerebral Amyloid Angiopathy**

Jennifer Dewing, Abby Keable, Alexandru Laslo, Laura Chinezu, Adrian Ivanescu, J Arjuna Ratnayaka, Raj Kalaria, Mark Slevin Slevin, Ajay Verma, Roxana Carare

15:45 **O17 A comprehensive spatiotemporal map of dystrophin isoforms expression in the developing and adult human brain**

Francesco Catapano, Darren Chambers, Reem Alkharji, Simran Singh, Juliane Muller, Jennifer Morgan, Patrizia Ferretti, Jyoti Malhotra, **Rahul Phadke,** Francesco Muntoni

Flash Talks

16:00 **P1 Cryo-EM Cryo-EM as a tool for molecular neuropathology**

Leslie Bridges

16:05 - 16:30 Coffee Break

16:30- 17:30 PROFESSIONAL AFFAIRS MEETING

17:30 - 18:15 BUSINESS MEETING

19:30 - late SOCIETY DINNER AT THE VIEW

FRIDAY 31st JANUARY 2025

08:00 **Registration**

09:00 - 10:30 **FOURTH SCIENTIFIC SESSION – Neurodegeneration II**
Chairs: Robin Highley and Zane Jaunmuktane

09:00 **O18 Identifying Diverse Pathways to Dementia in Parkinson's Disease**

Nancy Chiraki, Hemanth Nelvagal, Toby Curless, Sebastian Brandner, Eduardo De Pablo Fernandez, Huw Morris, John Hardy, Yau Mun Lim, Zane Jaunmuktane

09:15 **O19 Co-methylation network analysis reveals dysregulated DNA methylation signatures related to Oligodendrocytes across dementias**

Katherine Fodder, Conceicao Bettencourt, Naiomi Rambarack, Tammaryn Lashley

09:30 **O20 Synapse quantifications in Progressive Supranuclear Palsy brain tissue: a validation study of [11C] UCB-J PET as a synaptic biomarker**

George Nolan, Shangqing Yang, Negin Holland, Qiyuan Chen, Kieren Allinson, Maura Malpetti, Andras Lakatos, James Rowe, **Annelies Quaegebeur**

09:45 **O21 Physiological Mechanisms of CSF Drainage: Exploring the Nasal Route.**

Nour Gharaibeh, Daniel Michalik, Riaz Fazal, Hilary Wunderlich, Marion San Nicolo, Rami Salib, Roxana Carare

10:00 **O22 History of isolated traumatic brain injury or repetitive head impacts is associated with emergence of late, TBI-related neurodegeneration pathologies in the spinal cord**

Lauren Black, Hidetomo Tanaka, Jean-Pierre Dollé, Douglas Smith, Gabor Kovacs, William Stewart

Flash Talks

10:15 **P24 Multiple Sclerosis progression linked to medulla oblongata neurodegeneration and demyelination.**

Constantinos Demetriou, Ben Cooze, Lauren Griffiths, Ildi Farkas, Richard Reynolds, Owain Howell

10:20 **P15 Epigenetic Methylation and One Carbon Metabolism in TDP-43 Proteinopathies**

Farah Mahiddine, Rebecca Jackson, Alexander Myland, Sheetal Agheda, Heather Walker, Janine Kirby, Elizabeth Williams, Guillaume Hautbergue, Robin Highley

10:25 - 11:00 **Coffee break**

11:00 - 12:00 **POSTER DISCUSSION – even numbered posters**

12:00 - 13:00 **Lunch**

13:00 - 14:40 **CLINICAL UPDATE SESSION**
Chairs: Sebastian Brandner and Tim Dawson

13:00 **Epilepsy**

Maria Thom

Case Reports

13:40 **C1 Longstanding posterior fossa subependymoma with sarcomatous differentiation: first reported case with compartment-specific molecular analysis**

Alfiya Wood, Yagmur Esemen, Ross Laxton, Kelly Eggleton, Rebecca Ellmers, Bassel Zebian, Francesco Fergani, Zita Reisz, Istvan Bodi

13:55 **C4 Three-Repeat Tau Deposits in Brains with Neuropathological Features of Progressive Supranuclear Palsy**

Ojasvini Chorghade, Christopher Kobylecki, John Ealing, James Minshull, Yvonne Davidson, Andrew Robinson, Federico Roncaroli

14:10 - 14:50 DIAGNOSTIC SLIDE SESSION (INCORPORATING EQA)

14:50 PRIZE ANNOUNCEMENTS AND CLOSE OF THE MEETING