

2017 SINAPSE Annual Scientific Meeting

Friday 16 June 2017

Queen Elizabeth Teaching & Learning Centre, QEUH Glasgow

09.30	Registration and Coffee			
10.00	Welcome	Prof Keith Muir, University of Glasgow		
10.05	Update on SINAPSE	Prof Alison Murray, SINAPSE Director		
Session 1				
10.10	<i>Enhancing motor reaction time using real-time functional MRI neurofeedback of supplementary motor area</i>	Mr Salim Al-Wasity, University of Glasgow	Proffered (PP1)	
10.25	<i>The search for a novel, TSPO targeted, radiotracer for PET imaging of inflammation</i>	Dr Mark G. MacAskill, University of Edinburgh	Proffered (MI1)	
10.40	<i>Assessing lactate concentration in breast cancer using a novel magnetic resonance spectroscopy (MRS) method</i>	Mr Sai Man Cheung, University of Aberdeen	Proffered (IA1)	
10.55	<i>MRI as a tool for pre and post-operative assessment of arterio-venous fistulae</i>	Mr Conor MacDonald, University of Dundee	Proffered (CA1)	
11.10	Morning Tea Break			
Session 2				
11.40	<i>Cortical layer specific fMRI at ultra high field</i>	Dr Jozien Goense, University of Glasgow	Invited	
12.15	<i>The brain as victim and culprit: The long path from Obesity & Hypertension to Stroke & Dementia</i>	Prof Arno Villringer, MPI CBS, Leipzig	Keynote	
13.00	Lunch including exhibition and networking			
Session 3				
13.50	Parallel sessions			
	<p>TOPIC 1 <i>Psychology and psychiatry</i></p> <p>Chair: Prof Lars Muckli, University of Glasgow</p>	<p>TOPIC 2 <i>Clinical applications</i></p> <p>Chair: Prof Adam Waldman, University of Edinburgh</p>	<p>TOPIC 3 <i>Methodology and image analysis</i></p> <p>Chair: Prof Emanuele Trucco, University of Dundee</p>	<p>TOPIC 4 <i>Molecular imaging</i></p> <p>Co-chairs: Prof David O'Hagan, University of St Andrews & Dr David Lewis, Beatson Institute Glasgow</p>
15.10	Afternoon Tea Break and poster session			
Session 4				
16.00	<i>PET/MR: Picturing the Heart in 2020</i>	Dr Marc Dweck, University of Edinburgh	Invited	
16.30	Announcements and prizes			
16.45	Close (optional tour of ICE building)			

Parallel sessions (13.50-15.10)

TOPIC 1 – Psychology and psychiatry			
13.50	<i>The brain as a prediction machine</i>	Prof Lars Muckli, University of Glasgow	Invited overview
14.10	<i>Increased prefrontal activity with ageing reflects nonspecific neural responses rather than compensation</i>	Dr Alexa Morcom, University of Edinburgh	Proffered (PP2)
14.18	<i>Klotho's effects on cognition and brain in early life</i>	Ms Clarisse de Vries, University of Aberdeen	Proffered (PP3)
14.26	<i>Evaluation of Thiel cadaver mastery learning using eye tracking as an objective measure of skill acquisition</i>	Dr Mel McKendrick, Heriot-Watt University	Proffered (PP4)
14.34	<i>Using the ISC-toolbox to examine fMRI inter-subject correlation in adults with autism while viewing biological motion stimuli</i>	Prof Frank Pollick, University of Glasgow	Proffered (PP5)
14.42	Poster lightning talks	(P1-P9)	

TOPIC 2 – Clinical applications			
13.50	<i>Evolving clinical imaging research in Edinburgh: Neurooncology, neuroinflammation and dementia</i>	Prof Adam Waldman, University of Edinburgh	Invited overview
14.10	<i>Can PNEUMBRA predicted by NIHSS and ASPECT in acute ischaemic stroke</i>	Dr Manal Alnaas, University of Dundee	Proffered (CA2)
14.20	<i>Observer reliability of CT perfusion scans</i>	Dr Salwa El Tawil, University of Glasgow	Proffered (CA3)
14.30	<i>Increased cerebrovascular resistance in cerebral small vessel disease</i>	Dr Yulu Shi, University of Edinburgh	Proffered (CA4)
14.40	Poster lightning talks	(P10-P21)	

TOPIC 3 – Methodology and image analysis			
13.50	<i>How wide is this vessel? The challenge of achieving high-quality measurements from medical images</i>	Prof Emanuele Trucco, University of Dundee	Invited overview
14.10	<i>Comparison of advanced diffusion magnetic resonance imaging methods for profiling whole human breast tumour microstructure</i>	Mr Nicholas Senn, University of Aberdeen	Proffered (IA2)
14.20	<i>Preclinical Validation Motion Models for Magnetic Resonance Image Guided Focused Ultrasound</i>	Mr Andrew Dennison, University of Dundee	Proffered (IA3)
14.30	<i>Real-Time Microultrasound Visualisation of the Nerve Trauma during Regional Anaesthesia Caused by the Anaesthetic Needles</i>	Miss Anu Chandra, University of Dundee	Proffered (IA4)
14.40	Poster lightning talks	(P22-P33)	

TOPIC 4 – Molecular imaging			
13.50	<i>Imaging faster than the speed-of-light: guiding brain cancer surgery with Cerenkov luminescence</i>	Dr David Lewis, Beatson Institute Glasgow	Invited overview
14.10	<i>Quantification and comparison of KD, Bmax and % Specific Binding for PK11195 across human brain tissue expressing high, mixed and low affinities due to rs6971 polymorphism</i>	Dr Adriana Tavares, University of Edinburgh	Proffered (MI2)
14.20	<i>New Selective PET Imaging Agents for S1P5 Receptors</i>	Mr Tim Morgan, University of Glasgow	Proffered (MI3)
14.30	<i>Investigating the potential of 18F-fluciclovine PET imaging to differentiate progression from pseudoprogression in glioblastoma patients</i>	Dr Rafael Moleron, University of Aberdeen	Proffered (MI4)
14.40	Poster lightning talks	(P34-P43)	

Poster session (15.10-16.00)

Poster No.	Title	Presenting Author
TOPIC 1 – Psychology and psychiatry		
P1	<i>The effect of experience on differences in fMRI inter-subject correlation while watching CCTV videos of prosocial and antisocial behaviour</i>	Greta Todorova
P2	<i>Incongruity in cross-modal emotional integration in autistic traits--an fMRI study</i>	Peipei Liu
P3	<i>Neuroanatomical correlates of sleep disturbances in patients with Alzheimer's disease</i>	Divya Garg
P4	<i>Neuroimaging markers of fatigue: A machine learning study</i>	Maria Goñi
P5	<i>Prediction models of late-life intelligence quotient (IQ) using brain structure morphometry: Machine learning applications</i>	Shaun R. Stone
P6	<i>Relationship between IQ at different ages and functional brain connectivity in healthy elders</i>	Anca-Larisa Sandu
P7	<i>Proactive control and episodic retrieval orientation</i>	Michael Siena
P8	<i>Neuroimaging on the move: brain oscillations related to locomotion</i>	Magdalena Ietswaart
P9	<i>Neuromagnetic 40 Hz Auditory Steady State Responses and Auditory Cortical Levels of GABA and Glx in Participants at Clinical High Risk of Psychosis</i>	Hanna Thuné
TOPIC 2 – Clinical applications		
P10	<i>T1 Dentate Nucleus Signal Intensity Following Multiple Gadoteric acid (Dotarem®)-Enhanced MRI vs Multiple Non-Contrast MRI</i>	Laura Young
P11	<i>Texture Analysis of Gadolinium-Enhanced Magnetic Resonance Images of the Human Brain</i>	Brianna Burton
P12	<i>Evaluation of an Automatic ASPECT Scoring System for Acute Stroke in Non-Contrast CT</i>	Matt Daykin
P13	<i>The relationship between hypertension and MRI detected brain hyperintensities in three Aberdeen Birth Cohorts aged 60-82y</i>	Chris McNeil
P14	<i>Vascular risk factors, Cognitive ability and Hippocampal volume in the Aberdeen 1936 Birth Cohort</i>	Mina Khezrian
P15	<i>Assessing the cognitive profile and brain abnormalities of people with vascular risk factors: A cohort study</i>	Tina Habota
P16	<i>Distinct anatomical subtypes of behavioural variant frontotemporal dementia and involvement of intrinsic brain networks: a clustering study</i>	Vesna Vuksanovic
P17	<i>Determinants of brain iron deposition in the Aberdeen Children of the Nineteen Fifties (ACONF)</i>	Vasiliki Mallikourti
P18	<i>Epicardial Adipose Tissue: Relationship with Cardiovascular Disease and the Impact of Therapeutic Interventions.</i>	Shaween Al-Talabany
P19	<i>Understanding the role of polyunsaturated fatty acid (PUFA) in breast cancer using a novel magnetic resonance spectroscopy (MRS) method</i>	Sai Man Cheung
P20	<i>A Fast Field-Cycling MRI system for clinical applications</i>	James Ross
P21	<i>The T1-Dispersion Curve as a Biomarker of Colorectal Cancer</i>	Vasileios Zampetoulas

TOPIC 3 – Methodology and image analysis		
P22	<i>Simulation of Fast Field-Cycling MRI inversion-recovery pulse sequences to inform experimental parameters.</i>	Nicholas R. Payne
P23	<i>Impact of stimulus parameters on the BOLD signal following forelimb stimulation in the rat</i>	Robert Morgan
P24	<i>Accelerating T2* Mapping with Maximum Likelihood Estimation (MLE) and Parallel Imaging (PI)</i>	Wajiha Bano
P25	<i>Validation of Automated Lesion Detection Algorithms for White Matter Hyperintensities</i>	Jennifer Waymont
P26	<i>A comparative assessment of 2D and 3D FLAIR using a semi-automated approach for white matter hyperintensity detection</i>	Michael S. Stringer
P27	<i>Quantitative Measurements of Enlarged Perivascular Spaces in the Brain are associated with Retinal Microvascular Parameters</i>	Maria Valdés Hernández
P28	<i>Update on BRAINS (Brain Images of Normal Subjects)</i>	Dominic E. Job
P29	<i>An Integrated Imagebank for Stroke Research</i>	Samuel O. Danso
P30	<i>Using cross sectional CT imaging to 3D print a negative space model of the pterygopalatine fossa</i>	Ross Bannon
P31	<i>Perfused Human Thiel Embalmed Cadaveric model for pre clinical endovascular device testing</i>	Rachel Stewart
P32	<i>Evaluation of the spiral flow in the downstream of prosthetic grafts using ultrasound</i>	Xiaowei Zhou
P33	<i>Focused ultrasound facilitated disruption of the BBB</i>	Julie McNairn
TOPIC 4 – Molecular imaging		
P34	<i>Scintillation materials for PET/MRI coupled to digital SiPM</i>	Natalia Campos Rivera
P35	<i>Evaluation of three different 3D-printed materials for development of preclinical PET/CT phantoms</i>	Wendy McDougald
P36	<i>Impact of different microCT reconstruction protocols on measured Hounsfield Units (HU) and image resolution</i>	Sam Watson
P37	<i>An Automated Synthesis of [11C]-Palmitate using [11C]-CO₂ on a GE TRACERlab FXC-Pro</i>	Tashfeen Walton
P38	<i>Effect of the radiotracer administration route on 18F-NaF Positron Emission Tomography (PET) kinetic modelling constants and outcome measures in naïve mice</i>	Carlos José Alcaide-Corral
P39	<i>Novel PET imaging agents based on PARP-1 inhibitors</i>	Kerry O'Rourke
P40	<i>Development of an 18F-labelled Poly (ADP-ribose) Polymerase-1 Inhibitor for PET imaging in Brain Tumours</i>	Maria Clara Liuzzi
P41	<i>Radiolabelled gold nanoparticles for breast and colorectal cancer imaging and treatment</i>	Tim A. D. Smith
P42	<i>Treatment of breast and colorectal cancer cells with the GSK-3 inhibitor SB216763 decreases accumulation of choline by phospholipids accompanied by appearance of CDP-choline in 31P-NMR spectra</i>	Su Myat Phyu
P43	<i>[18F]FAZA in the detection of tumour hypoxia in patients with colorectal carcinoma: A pilot study.</i>	Sergio Dall'Angelo