

Alan McE



**British Chapter of the International Society for
Magnetic Resonance in Medicine**

BC-ISMIRM 20th Annual Scientific Meeting

**John McIntyre Conference Centre, University of
Edinburgh, Scotland**

4th – 5th September 2014

Educational Workshop:

Dynamic Contrast Enhanced MRI

3rd September 2014



#BCISMIRM2014

Conference Programme

Wednesday 3rd September 2014

15.00 – 19.00 **Registration Opens**

17.30 – 19.00 **Drinks Reception**

Thursday 4th September 2014

08.30 – 09.15 **Registration & Coffee**

09.15 – 09.30 **Conference Welcome:** Ian Marshall, University of Edinburgh

09.30 – 09.55 **Chair's Report:** Andrew Blamire, Newcastle University

09.55 – 10.35 **William Moore Memorial Lecture**

Chair: Andrew Blamire, Newcastle University

Paul Matthews, Imperial College London

Translational neuroimaging: has the "cutting edge" had clinical impact?

10.35 – 11.10 **Coffee break**

11.10 – 12.30 **Poster Previews**

Chair: Mark Lythgoe, University College London

12.30 – 14.00 **Lunch & Poster Viewing** (viewing from 1.15pm-2.00pm, all even number boards)

14.00 – 14.30 **Session 1 – Novel acquisition techniques**

Keynote Speaker: David Lurie, University of Aberdeen

Techniques and applications of field-cycling MRI

14.30 – 15.25 **Oral Session 1 – Novel acquisition techniques**

Chair: David Lurie

Co-Chair: Jehill Parikh

14.30 – 14.42 **Ian Cavin, NHS Tayside**

1A *Optimisation of 31P MRS for clinical cardiac investigations at 3T: Preliminary Results*

14.43 – 14.55 **Pauline Hall Barrientos, NHS Greater Glasgow & Clyde**

1B *Evaluation of 4D PC-MRI as a tool for the quantification and visualisation of peripheral arterial flow in small vessels*

14.56 – 15.08 **Neil Stewart, University of Sheffield**

1C *Human Lung MR Imaging using Naturally-Abundant ^{129}Xe with optimised 3D SSFP*

15.09 – 15.21 **Fiona Smith, Newcastle University**

1D *Variation in muscle and liver glycogen during day long eating in normal health and type 2 diabetes*

15.25 – 15.40 Coffee break

15.40 – 16.10 **Session 2 – Contrast enhanced MRI**

Keynote Speaker: Steven Sourbron, University of Leeds

DCE-MRI analysis: disentangling the kinetics of water and tracer

16.10 – 17.00 **Oral Session 2– Contrast enhanced MRI**

Chair: Steven Sourbron **Co-Chair: Jamie Douglas**

16.10 – 16.22 **Ben Dickie, University of Manchester**

2A *Improved precision and accuracy of two-compartment exchange model parameters by joint fitting to variable flip angle and dynamic contrast enhanced MRI data*

16.23 – 16.35 **Stephanie Withey, University Hospitals Birmingham**

2B *Parameters describing dynamic susceptibility-contrast (DSC-) MRI arterial input function (AIF) shape correlate with age in childhood*

16.36 – 16.48 **Georgios Papanastasiou, University of Edinburgh**

2C *Comparison of distributed parameter and Fermi modelling of cardiac MR perfusion with CT perfusion in coronary artery disease versus invasive coronary angiography*

16.48 – 17.00 **Tanuj Puri, Newcastle University**

2D *Changes in Pulmonary Vascular Properties in a Human Model of Acute Lung Injury Measured using DCE-MRI*

17.00 **British Chapter ISMRM Annual General Meeting**

Chair: Andrew Blamire

17.30 **Derek Jones, Cardiff University**

Chair: Andrew Blamire

Death Threats, the Bermuda Triangle and the Reviewing Kama Sutra: The Trials and Tribulations of being ISMRM Programme Chair

18.00 Close of Day 1

Friday 5th September 2014

09.00 – 09.30 **Session 3 – Foetal and Early Life MRI**

Keynote Speaker: Penny Gowland, University of Nottingham

Foetal MRI: opportunities and pitfalls

09.30 – 10.25 **Oral Session 3 – Foetal and Early Life MRI**

Chair: Penny Gowland

Co-Chair Devasuda Anblagan

09.30 – 09.42 **Gillian Macnaught, University of Edinburgh**

3A *1H MRS as a Biomarker for Placental Insufficiency in the Growth Restricted Fetus*

09.43 – 09.55 **Martin Wilson, University of Birmingham**

3B *A field strength independent 1H MRS based decision support system for diagnosing paediatric brain tumours*

09.56 – 10.08 **Emmanuel Amabebe, University of Sheffield**

3C *Determining changes in vaginal microbiome and 1H NMR metabolite spectrum during pregnancy*

10.09 – 10.21 **Simrandip Gill, University of Birmingham**

3D *Multi-centre Characterisation of Metabolite Profiles of Paediatric Brain Tumours*

10.25 – 10.45 Coffee Break

10.45 – 11.15 **Session 4 – Image Processing and Analysis**

Keynote Speaker: Tom MacGillivray, University of Edinburgh

*Novel image processing and analysis for MRI and beyond: eyes, thighs and T2**

11.15 – 12.15 **Oral Session 4 – Image Processing and Analysis**

Chair: Tom MacGillivray

Co-Chair: Johnathan Clayden

11.15 – 11.27 **Maham Tariq & Sehrish Aslam, Comsats Insitute of Information Technology**

4A *Conjugate Gradient SENSE using Spiral and Radial Trajectory in MRI*

11.28 – 11.40 **Jyh-Miin Lin, University of Cambridge**

4B *Carotid Imaging with PROPELLER and Fast Iterative NUFFT on GPU*

1.41 – 11.53 **Fani Deligianni, University College London**

4C *Evaluating Structural Brain Networks based on their Performance in Predicting Functional Connectivity*

11.54 – 12.08 **Malte Hoffmann, University of Cambridge**

4D *Optimisation of retrospective motion correction in fMRI of uncooperative patients*

12.15 – 13.30 Lunch & poster viewing (viewing from 12.45pm-1.30pm, all odd number boards)

13.30 – 14.00 **Session 5 – Imaging the ageing brain**

Keynote Speaker: Mark Bastin, University of Edinburgh

Imaging the Lothian Birth Cohort 1936: Insights into the ageing brain

14.00 – 14.55 **Oral Session 5 – Imaging the ageing brain**

Chair: Mark Bastin

Co-Chair: Kieren Hollingsworth

14.00 – 14.12 **Anna Heye, University of Edinburgh**

5A *Model selection for DCE-MRI applied to detect subtle blood-brain barrier disruption*

14.13 – 14.25 **Olivia Viessmann, University of Oxford**

SAI *High-Resolution Time-of-Flight Angiography of Lenticulostriate Arteries at 7T*

14.26 – 14.38 **Ozama Ismail, University College London**

5B *Imaging Strategy to Characterise Tau Pathology in vivo in a Model of Alzheimer's disease using Multi-Parametric MRI*

14.39 – 14.51 **Simon Cox, University of Edinburgh**

5C *Compensation or inhibitory failure? Testing hypotheses of age-related right frontal lobe involvement in verbal memory ability using structural and diffusion MRI*

14.55 – 15.15 Coffee Break

15.15 – 15.45 **Session 6 – Preclinical MRI**

Keynote Speaker: William Holmes, University of Glasgow

Pre-clinical MRI in Stroke and Cardiovascular Research

15.45 – 16.40 **Oral Session 6 – Preclinical MRI**

Chair: William Holmes

Co-Chair Po-Wah So

15.45 – 15.57 **Lucia Giles, University of Oxford**

- 6A *The Effects of Acute and Chronic Up-Regulation of Pyruvate Dehydrogenase in the Heart*
15.58 – 16.10 **Bryony McGarry & Harriet Rogers, Bristol University**
- 6B *Timing of Acute Ischaemic Stroke Using Quantitative T1 and T2 MR Relaxation Times*
16.11 – 16.23 **Anjanette Harris, University of Edinburgh**
- 6C *Imaging conditioned fear circuitry in awake mice using fMRI*
16.24 – 16.36 **Holly Holmes, University College London**
- 6D *Investigating cerebral blood flow differences in Alzheimer's disease and Down's syndrome*
16.40 – 17.00 Awards of Mansfield and British Chapter Prize
17.00 – 17.15 Closing Comments: Ian Marshall, University of Edinburgh
17.15 Conference Close