British Chapter of the International Society for Magnetic Resonance in Medicine

BC-ISM RM 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
Conference Programme

Wednesday 3\textsuperscript{rd} September 2014

15.00 – 19.00  Registration Opens
17.30 – 19.00  Drinks Reception

Thursday 4\textsuperscript{th} 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


  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 40 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 129Xe 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

2G 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

30  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

SA Model selection for DCE-MRI applied to detect subtle blood-brain barrier disruption


SA1 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
The Effects of Acute and Chronic Up-Regulation of Pyruvate Dehydrogenase in the Heart

Bryony McGarry & Harriet Rogers, Bristol University

Timing of Acute Ischaemic Stroke Using Quantitative T1 and T2 MR Relaxation Times

Anjanette Harris, University of Edinburgh

Imaging conditioned fear circuitry in awake mice using fMRI

Holly Holmes, University College London

Investigating cerebral blood flow differences in Alzheimer’s disease and Down’s syndrome

Awards of Mansfield and British Chapter Prize

Closing Comments: Ian Marshall, University of Edinburgh

Conference Close