

# The Aorta: From Structure to Rupture 2019

25<sup>th</sup> September 2019

Hub Lounge, Foresight Centre, Brownlow Street, L69 3GL

## Meeting Programme

9-9.30 AM Registration

9.30-9.35 AM *Welcome and Overview* (Dr Riaz Akhtar, University of Liverpool)

9.35-9.45 AM *Cardiovascular Sciences and Medicine at Liverpool* (Professor Zarko Alfirevic, Pro-Vice-Chancellor for Clinical Research, University of Liverpool)

9.45-10.00 AM *A patient perspective on Aortic research* (Gareth Owen, Aortic Dissection Awareness UK & Ireland)

Session 1 – Aneurysms and Inflammation (Session Chair: Mr Mark Field, Liverpool Heart and Chest Hospital)

**10.00-10.30 AM – *Inflammation Underlying Aortic Catastrophes* (Keynote Speaker - Professor John Pepper, Royal Brompton Hospital)**

10.30-10.50 AM - *The role of Plasma Membrane Calcium ATPase 4 (PMCA4) as a regulator of pro-inflammatory signalling in human aortic endothelial cells* (Kinza Khan, University of Wolverhampton)

**10.50-11.20 *Coffee Break and Refreshments*** (Innovation Hubs)

Session 2 – Aortic Imaging and Modelling (Session Chair: Dr Vanessa Diaz, UCL)

11.20-11.40 AM - *Cardiovascular magnetic resonance imaging for diseases of the aorta* (Dr Tim Fairbairn, Liverpool Heart and Chest Hospital)

11.40-12.00 PM - *4D Flow MRI-Based Computational Analysis of Blood Flow in Patient-Specific Aortic Dissection* (Dr Selene Pirola, Imperial College)

12.00-12.20 PM - *Patient-specific modelling for treatment optimization and outcome prediction during aortic valve repair and root remodelling* (Mr Massimo Capoccia, University of Strathclyde and Royal Brompton and Harefield NHS Foundation Trust)

**12.20 – 13.20 PM - Lunch and Poster Viewing** (Innovation Hubs)

Session 3 – Novel approaches in aortic disease (Session Chair: Mr Omar Nawaytou)

**13.20 – 13.50 PM - A decade of *computational Modelling to Understand the Haemodynamics of Dissected Aortae* - *What have we learnt and where do we go from here?* (Keynote Speaker - Dr Vanessa Diaz, UCL)**

13.50 – 14.10 PM - *Patients with Mutations in MYLK: From Gene Structure to Aortic Rupture in the Era of Personalised Genomic Medicine* (Dr Victoria McKay, Liverpool Heart and Chest Hospital)

14.10-14.30 PM - *A multi-disciplinary approach to investigate underlying pathology in aortopathies* (Dr Jill Madine, University of Liverpool)

14.30 – 14.50 PM - *Exploring the utility of I-knife in aortic surgery and research* (Dr Hannah Davies, University of Liverpool)

**14.50-15.30 PM *Coffee Break and Refreshments*** (Innovation Hubs)

Session 3 – Novel approaches in aortic disease (Session Chair: Dr Jill Madine)

15.30 – 15.50 PM - *The difference faces of bicuspid aortic valves and their associated aortopathy* (Mr Omar Nawaytou, Liverpool Heart and Chest Hospital)

15.50 – 16.10 PM - *The unique nature of Bicuspid Aortic Valve aortopathy – from amyloid to elastin* (Dr Riaz Akhtar, University of Liverpool)

16.10 - 16.20 PM – *Closing remarks* (Mr Mark Field, Liverpool Heart and Chest Hospital)