

# The Aorta: From Structure to Rupture (2022)

## Meeting Programme

Friday 24<sup>th</sup> June 2022

Mason Bibby Common Room, 1<sup>st</sup> Floor, Harrison Hughes  
Building, School of Engineering

*Organised by the Liverpool Aortic Biomechanics and Biochemistry  
(LABB) Research Group, University of Liverpool*





## Meeting Programme

*All presentations will take place in the Mason Bibby Common Room, 1st Floor, Harrison Hughes*

**9.00-9.30 AM:** *Registration* (Atrium, Ground Floor, Harrison Hughes Building)

**9.30-9.35 AM:** *Introduction to the Meeting* (Dr Riaz Akhtar, University of Liverpool)

**9.35-9.40 AM:** *Welcome Address* (Professor Eann Patterson, Dean of School of Engineering, University of Liverpool)

**9.40-9.50 AM:** *Introduction to LCCS and the Aortic Big Picture* (Professor Gregory Lip, Director of Liverpool Centre of Cardiovascular Science, University of Liverpool)

### **Session 1** – (Session Chair: Dr Riaz Akhtar, University of Liverpool)

**09:50-10:10 AM:** *The clinical application of structure to rupture* (Prof. Mark Field, Liverpool Heart and Chest Hospital)

**10:10-10:50 AM:** ***What to do with Variants of Unknown Significance (VUS) in Aortic Disease?*** (Plenary Speaker - Professor John Elefteriades, Yale University)

**10.50-11.20 AM:** *Poster Viewing, Coffee Break and Refreshments* (Atrium, Ground Floor)

### **Session 2** – (Session Chair: Dr Jillian Madine, University of Liverpool)

**11.20-11.50 AM:** ***The Aortic Dissection Charitable Trust: Driving Research Together*** (Catherine Fowler & Richard Bonella, Aortic Dissection Charitable Trust)

**11.50-12.20 PM:** ***Microcalcification in Thoracic Aortopathy: a window into disease severity*** (Dr Alex Fletcher, University of Edinburgh)

**12.20-12.30 PM:** *Exploring the relationship between neutrophils and aortic medial amyloid* (Sarah Shirley, University of Liverpool)

**12.30-12.40 PM:** *Micromechanical variation in Abdominal Aortic Aneurysms* (Martin Hossack, University of Liverpool)

**12.40–13.40 PM:** *Lunch and Poster Viewing* (Atrium, Ground Floor)



**Session 3 – (Session Chair: Dr Wahbi El-Bouri, University of Liverpool)**

**13.40–14.10 PM: *An Engineered-Power Vision to Enable Precision Vascular Surgery* (Professor Vanessa Diaz, University College London) – [Virtual Talk](#)**

**14.10–14.20 PM: *The haemodynamic impact of segmental arteries in type-B aortic dissection: a patient-specific study informed by 4D flow MRI* (Catriona Stokes, University College London) – [Virtual Talk](#)**

**14.20-14.30 PM: *Compliant Pre/Post-Op Patient-Specific CFD Simulations Informed by Routine TBAD Clinical Data* (Louis Girardin, University College London) – [Virtual Talk](#)**

**14.30-15.00 PM: *A virtual stent-graft deployment framework for application in aortic dissection* (Prof. Yun Xu, Imperial College London)**

**15.00-15.30 PM: Poster Viewing, Coffee Break and Refreshments (Atrium, Ground Floor)**

**Session 4 – (Session Chair: Dr Riccardo Proietti, University of Liverpool)**

**15:30–16.00 PM: *Arterial stiffening measured as Pulse Wave Velocity and Patient Outcomes – State of the art* (Professor Kennedy Cruickshank, King's College London)**

**16.00–16:10 PM: *Vascular dysfunction in hard to manage hypertension* (Dr Alena Shantsila, University of Liverpool)**

**16.10-16.20 PM: *The PMCA4 calcium transporter and endothelial activation* (Kinza Khan, University of Wolverhampton)**

**16.20-16:30 PM: *Closing remarks* (Prof Mark Field, Liverpool Heart & Chest Hospital)**