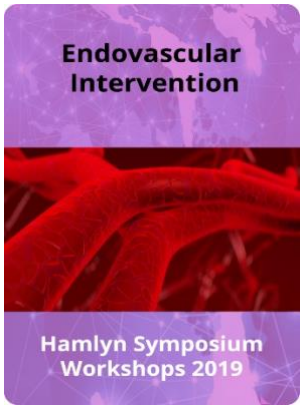

Workshop: Endovascular Intervention

Code: SAM01 | Sunday, 23rd June

Royal Geographical Society

Co-Chairs and Organisers:
Bradley Nelson, ETH Zurich, Switzerland
Celia Riga, Imperial College Healthcare, NHS Trust, UK
Giulio Dagnino, The Hamlyn Centre, Imperial College, UK

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08:30-09:00	**Registration and Coffee**
09:00	Robots, Robots, everywhere! in a cardiovascular operating room? *(Clinical Keynote) Alan Lumsden, Houston Methodist, Weill Cornell Medical College, USA*
09:40	**New Technologies for MR guided Endovascular Procedures: Cardiac Biopsy, Aortic Coarctation Stenting, Heart Valve Prosthesis and Thrombolysis** *Andreas Melzer, University of Leipzig, Germany*
10:05	**Robotic Assistance to Reduce Embolisation and Stroke during Endovascular Interventions** *Mohamad Hamady, Imperial College London, UK*
10:30	**Poster Session**
10:45-11:15	**Coffee Break & Poster Session**
11:15	**Brain and Otolaryngology (Head & Neck) Applications** *Thomas Looi, Sick Kids Hospital, Toronto, Canada*
11:40	**Origami Engineering for the Brain – The Oxford Endovascular Spinout Journey** *Mike Karim, Oxford Endovascular, UK*
12:05	**Magnetically Guided Devices for Endovascular Procedures** *Quentin Boehler (on behalf of Bradley Nelson), ETH Zurich, Switzerland*
12:30	**Spotlight session: Frontiers of Robot-Assisted Endovascular Intervention**
12:50	**Concluding Remarks**
13:00-14:00	**Lunch Break & Poster Session @ The Marquee**

Keynote Speaker:

Alan B. Lumsden, MD

Walter W. Fondren III Distinguished Endowed Chair

Medical Director , Houston Methodist DeBakey Heart & Vascular Center

Chair, Department of Cardiovascular Surgery, Houston Methodist Specialty Physician Group

Title:

Robots, Robots, everywhere! in a cardiovascular operating room?

BIOGRAPHY

Dr. Lumsden grew up in Whitburn, West Lothian, Scotland, a town of a little more than 10,000 people located between Glasgow and Edinburgh. He received his Bachelor of Medicine from the University of Edinburgh where he graduated at the top of his class. After completing a year-long internship, he moved to Emory University in Atlanta where he completed his general surgery residency and vascular fellowship, and eventually became the Chief of the Division of Vascular Surgery. In 2002, he joined the Michael E. DeBakey Department of Surgery at Baylor College of Medicine as Professor and Chief of the Division of Vascular Surgery and Endovascular Therapy. He assumed his position as Medical Director of the Houston Methodist DeBakey Heart & Vascular Center and Professor & Chairman, Department of Cardiovascular Surgery in 2008.

"I honestly thought I would never leave Emory, but when the chance to work with Dr. DeBakey came along, I thought it was a great opportunity for me," Lumsden said. "The history of cardiovascular surgery really began here with him and Dr. Stanley Crawford, and I wanted to be a part of this great organization."

Dr. Lumsden has developed an international reputation as a leader in the fields of endovascular surgery, in the arena of advanced interventional cardiovascular imaging, new educational techniques in vascular surgery, inter-industry collaborations, complex aortic disease, and endovascular robotics.

He has received funding for his research from the National Institutes of Health and industry, and has contributed to more than 400 articles in peer-reviewed journals; as well as abstracts, and authored numerous book chapters. Dr. Lumsden has also been an editor for textbooks related to vascular surgery. He has a particular interest in cardiovascular education and has successfully grown DeBakey Education into a nationally prominent organization.

Dr. Lumsden is looking forward to leading Houston Methodist DeBakey Heart & Vascular Center into the future in the new Walter Tower. With expanded operating rooms and state-of-the-art equipment, Dr. Lumsden believes it will help cement the Heart Center's reputation as one of the top programs in the country.

EDUCATION & TRAINING

- Emory University
- University of Edinburgh

Speaker:
Quentin Boehler (on behalf of Bradley Nelson), ETH Zurich, Switzerland

Title:
Magnetically Guided Devices for Endovascular Procedures

Biography:

Quentin Boehler was born in Strasbourg, France in 1990 where he received his M.S. degree in mechatronics from INSA Strasbourg in 2013. In September 2016, he received his PhD degree from ICube laboratory, University of Strasbourg, with a focus on tensegrity mechanisms and variable stiffness devices with application to MR-compatible robotics. For his doctoral thesis, he received the Best Thesis award from the research commission of the University of Strasbourg. He has been a postdoctoral researcher at the Multi-Scale Robotics Lab since April 2017. His current research includes the design of new catheters with applications to eye and heart surgery.

Speaker:
Mohamad Hamady, Imperial College London, UK

Title:
Robotic Assistance to Reduce Embolisation and Stroke during Endovascular Interventions

Biography:
Dr Hamady graduated from medical school in 1998. Following 3 years of surgical training, he joined clinical and interventional radiology training at the American University of Beirut. He completed interventional radiology training at the king's College – London in 2001. He then did 2 years of clinical research in Interventional Radiology at Guys and St. Thomas' hospital. He joined Imperial College – London in 2003 as Consultant and Senior Lecturer in clinical and interventional radiology.
His research interests include robotic endovascular intervention and navigation, virtual reality simulation training of endovascular skills, aortic stent grafting and advanced embolisation techniques. He recently started a collaborative project on stroke prevention during Thoracic Endovascular Aortic Repair (TEVAR).

He has over 150 papers in peer-reviewed journals and 12 book chapters. He has given over 55 talks and keynote lectures in national and international scientific meetings in the last 5 years.
Dr Hamady has done the world-first robotic endovascular aortic intervention in 2008 and the world-first robotic fibroid embolisation in 2012 and UK first robotic prostate artery embolisation in 2017.
He served several prominent roles in scientific and education committees of national and international learned societies, including British Society of Interventional Radiology, Cardiovascular and Interventional Radiological Society of Europe and Pan Arab Interventional Radiological Society.

Speaker:
Mike Karim, Oxford Endovascular, CEO - Oxford, UK

Title:
Origami Engineering for the Brain – The Oxford Endovascular Spinout Journey

Biography:
Mike is the CEO and co-founder of Oxford Endovascular Ltd, a spinout from Oxford University.
The company is developing a revolutionary medical device for patients suffering from brain aneurysms; a life-threatening disease affecting 1 in 50 persons in a strongly growing market valued over $1 billion . In 2017 it won 'Best Med-Tech Start-Up' at the Oxford Bio Network awards, 1st place at the BioTrinity 'Perfect Pitch' competition and an award at the 'European Health Catapult' finals.
Mike has 27 years growing international businesses in large corporations & start-ups.
Experienced in strategic planning, execution, team building, gaining regulatory approvals & fund raising.
Mike mentors students and presents at industry conferences. He studied Pre-Clinical Medicine, Physiology & Pharmacology at Southampton University and an MBA from Henley Business School.

Speaker:
Thomas Looi, Sick Kids Hospital, Toronto, Canada

Title:
Brain and Otolaryngology (Head & Neck) Applications

Biography:
Thomas Looi is the Project Director of the Centre of Image Guided Innovation and Therapeutic Intervention (CIGITI) at the Hospital for Sick Children. At CIGITI, he is responsible for the day to day operations, research planning, staffing and commercialization of a variety of minimally invasive surgical robotic tools. Some of these projects include: minimally invasive neurosurgical tools, millimetre-size actuators for the DaVinci surgical robot and MR-guided robotic systems. He has been involved in licensing technology and acting as an advisor to several medical device start-up companies.

His background is in aerospace and biomedical engineering where he spent 6 years working the space robotics at MDA and 7 years developing surgical robotic technology. He also conducts basic research in to the use of focused ultrasound for performing non-invasive thromboloysis. In addition to his technical background, he has a MBA from the Rotman School of Business where his focus was on finance and venture capital.