# SPEAKER BIOGRAPHIES & EXHIBITOR INFORMATION


## ANNUAL SCIENTIFIC MEETING GLASGOW 2021

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Grand Central Hotel
99 Gordon Street,
Glasgow, G1 3SF

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# PRESIDENTS WELCOME

*On behalf of the Association, I would like to thank the organisers and welcome all the delegates to our annual scientific meeting in Glasgow. I hope you enjoy the conference and the city.*

*Dr Niall O'Keeffe, ACTACC President*

# SPEAKER INFORMATION

**Dr Seema Agarwal**

***Biography:*** Seema Agarwal is a cardiac anaesthetist in Manchester, she was previously a consultant in Liverpool for 10 years. She has an interest in patient blood management and ran the 2018 ACTACC audit on resternotomy which was published in Anaesthesia and is the topic of her presentation today.

**Prof Luc Barvais**

***Biography***:

- Past Head of the Anaesthesia Department of the University Erasme Hospital, Free University of Brussels. et président DES Anesthésie ULB
- Past President of the Belgian Society of Anaesthesia and Resuscitation
- Past member of the Euroanaesthesia scientific subcommittee 3
- Board member EuroSIVA Society

***Abstract:*** Nociception is the propagation through the sensory system of potentially noxious and harmful stimulus. It can be assessed through changes in autonomic nervous tone. Antinociception, on the other hand, consists of the therapeutic components that control this reaction. Opioids are the most frequently used antinociceptive agents during general anaesthesia, but there is considerable interindividual variability in opioid requirements among patients. Genetic factors, age and organ dysfunction alter opioid pharmacodynamics and pharmacokinetics.

As both conditions counteract one another, the concept of Nociception-AntiNociception (NAN) balance can be defined as the state of equilibrium between nociception and antinociception. This NAN balance is a "concept", which can only be qualitatively evaluated. There is to date no quantitatively precise measure of this NAN balance described in the literature.

In clinical practice, the anaesthesiologist usually estimates the activation of the ANS and the NAN balance according to the intensity of the nociceptive stimulus and the level of antinociceptive drugs received by the patient. Traditionally, heart rate and arterial blood pressure changes have guided the clinician to titrate the antinociceptive component of anaesthesia, but hemodynamic variations are far from perfect and often force clinicians to be one step behind nociception. Ineffective antinociception is associated with a high risk of episodes of tachycardia and hypertension. This can cause cardiac ischemia and heart failure in patients with underlying cardiac disease but also lead to episodes of awareness. On the contrary, the overdosing of antinociceptive drugs can cause intraoperative hypotension, decreased organ perfusion, and postoperative hyperalgesia. It can also be associated with delayed recovery and prolonged hospital length of stay.

New techniques that measure the ANS response to noxious stimulation during general anaesthesia have been developed. These technologies use several parameters to assess the ANS tone, including plethysmographic pulse wave changes, pupil dilation, variability of the heartbeat interval over the respiratory cycle, skin conductance or multi parameter signals. These indexes are non-invasive and are complementary to frontal EEG monitors that measure the hypnotic component of anaesthesia. They have been demonstrated to be more sensitive to nociception than traditional hemodynamic parameters. They have been shown to be efficient in reducing intraoperative opioid consumption, limiting opioid excess and have been linked to improved hemodynamic stability. The features and the main advantages and limitations of the key nociceptive monitors will be described during the lecture.

**Several key principles may optimize the use of nociception monitors and guide future research:**

1) The absolute value of available indexes of nociception obtained during periods of no stimulation have limited to no predictive ability. The index variations after a noxious stimulus have the potential to improve the antinociception strategies.
2) Although the responses of the different nociception indexes to noxious stimulation are more sensitive indicators than traditional hemodynamic parameters alone, their values can be influenced by several confounding factors, including the interactions between hypnotic and anti-nociceptive anaesthetic agents.
3) There is a lack of data on the use of the nociceptive monitors when antinociception is provided using ketamine or □2-adrenergic agonists.
4) Appropriate index ranges for nociception may vary depending on the type of patients (e.g., children, the morbidly obese, the elderly, …).
5) Part of the nociceptive response involves cortical activation, which is completely ignored by the nociception monitors. Integrating different monitors capable of assessing several components (e.g., autonomic and cortical) may further improve antinociceptive strategies. From our experience, the use of a nociception monitor never precludes the use of frontal EEG monitoring as they complement one another.
6) Practitioner awareness of the risk of hyperalgesia has driven a shift towards opioid-sparing strategies. This may require higher doses of hypnotic agents, which could be associated with burst suppression and postoperative cognitive dysfunction.
7) One promising approach is to quantify each patient's response to a standard noxious stimulus. The index change could then be used to predict the required antinociception level for more intense nociceptive stimuli such as surgical incision. Funcke et al. applied a standardized electrical cutaneous stimulation to 38 anaesthetized patients and recorded heart rate, mean arterial blood pressure, BIS and nociceptive index values at varying remifentanil doses. The gradient of the nociceptive indexes following standardized stimulation were correlated with the remifentanil concentration. This correlation was greater than that of classical hemodynamic parameters (e.g., heart rate and mean arterial blood pressure). The authors proposed that an intermittent noxious stimulation could test the patient's nociceptive responsiveness and predict the required remifentanil Ce to control hemodynamic reaction to surgery. Preliminary results in cardiac and non-cardiac patients will be presented.

In conclusion, today's nociceptive monitors offer different indexes to measure autonomic response as a surrogate to nociception, but none truly quantifies the NAN balance. Nonetheless, these tools have been shown to improve intraoperative hemodynamic stability, limit the stress response to surgery and decrease the risk of anaesthetic drugs overdosing. The index combining multiple nociceptive parameters looks to be very sensitive. Further prospective randomized trials in homogenous populations (e.g., children, cardiovascular and geriatric patients) are needed to determine the impact on patient outcome of the use of multiparameter nociception monitors associated with EEG monitoring during opioid and opioid free general anaesthesia.

**Prof Richard Booton**

***Biography:*** Prof Booton has been Consultant Respiratory Physician in the North West Lung Centre for 12 years and Clinical Director for Lung Cancer & Thoracic Surgery at Wythenshawe Hospital since 2018. He was awarded an honorary chair in Respiratory Medicine at the University of Manchester.

Prof Booton graduated from the University of Leeds and completed higher specialist training in the North West followed by a fellowship in thoracic oncology at the Christie Hospital and Paterson Institute for Cancer Research with Professor Nick Thatcher, receiving a PhD in 2006. He is Programme Director for the award-winning RAPID programme and Manchester Lung Health Check/Lung Cancer Screening programme.

Prof Booton has additional affiliations/memberships with the British Thoracic Oncology Group, the Council of Regents, the Communications Committee for the International Association for the Study of Lung Cancer, the Clinical Advisory Group of the National Lung Cancer Audit, the NHSE Expert Advisory Group on Lung Cancer Screening and the NHSE National Delivery Group for Lung Health Checks.

**Prof Martha Clokie**

***Biography:*** Martha Clokie is a Professor of Microbiology at the University of Leicester with over 80 published papers on bacteriophages. She leads a group of 6 post-doctoral assistants and 5 PhD students working on different aspects of the therapeutic development of phages that target human and animal pathogens. Her work spans all aspects of phage therapy development – from unravelling fundamental biology to product development, and commercialisation. Three three patents have been filed from her work.

She has edited four books on phages, that have sold thousands of copies and are the recognised authority on phage methods (and have also been translated to Chinese). She has consulted to many biotech companies and is the Editor in Chief for a newly to be launched journal PHAGE: therapy, applications and research. She has been exposed to the practical use of phage in humans in Georgia and Russia and consulted with medical professionals to help design phage clinical trials to treat respiratory infections and diabetic foot ulcers respectively. She currently leads a project on the development of phages for Urinary Tract Infections.



Much of her work has focussed on developing phage products that target the anaerobic gut pathogen, Clostridium difficile which led to a string of papers on the fundamental and applied aspects of the disease. She has a track record of translating fundamental science to applied settings evidenced by her work on Salmonella, that led to two recent three-year BBSRC (Biotechnology and Biological Sciences Research Council) awards to design, formulate and evaluate phage products for use in livestock.

She has worked with the Department of Health and Wellcome Trust to inform debate and prioritisation of alternative therapies to antibiotic/antimicrobial drugs (2016); served on FSA (Food Standards Agency) Committee to advise on phage regulation in food (2016); Served on MRC funding committee for Antimicrobial Resistance Cross-Council Initiative (2015/2016). Her work has been the focus of recent phage documentaries on BBC world service and Bloomsburg Press. She was also recently on BBC R4 Life Scientific (October 2019), a programme that showcases scientists and on iconic 'Infinite Monkey Cage', a science comedy hosted by Brian Cox, January 2018.

***Lecture Summary; Viruses of Bacteria as Novel Antimicrobials***

Bacteriophages are viruses that infect and kill bacteria. They are highly specific, entirely natural, and all bacterial pathogens have these natural enemies. Their discovery and deployment to treat disease predates the development of antibiotics but the relative

complexity associated with their development, saw their contribution to disease treatment superseded by antibiotics from the 1950s to date. In this talk I will briefly cover the history of bacteriophage use and will provide an overview of bacteriophage therapy today.
I will cover the advantages and challenges of this alternative therapy and draw on examples from work within my laboratory to illustrate these. As the demand for novel antimicrobials continues to grow, bacteriophages are increasingly of interest to doctors worldwide to treat a range of bacterial diseases primarily respiratory, wound, and gastrointestinal infections. Whilst bacteriophage therapy is not straightforward to develop, the properties of bacteriophages as being highly specific, causing minimal disruption to healthy microbiota and replicating at the site of infection make them extremely promising candidates to be developed as treatments. Bacteriophages are a vital part of our microbiome where they contribute to bacterial physiology, population dynamics and evolution. Their development as novel antimicrobials can be seen as part of a wider picture of modifying bacterial composition within disease settings to remove offending pathogens and restructure healthy microbiomes.

**Dr Matthew Evison**

***Biography:*** Dr Matthew Evison MD MRCP(Respiratory). Qualified from Manchester University Medical School in 2004. Undertook specialist training in Respiratory Medicine 2008-2014 including a two-year fellowship in Thoracic Oncology at Wythenshawe Hospital, Manchester University NHS Foundation Trust, completing an MD degree in lung cancer diagnostics. Appointed as a Consultant in Respiratory Medicine (Thoracic Oncology) at Wythenshawe Hospital in 2014. Clinical Director for Lung Cancer for Greater Manchester Cancer and Clinical Lead for the Greater Manchester CURE Project (Hospital-based tobacco addiction treatment services). Chair of the British Thoracic Society Pleural Specialist Advisory Groups (SAG) and member of the tobacco SAG. Member of the British Thoracic Oncology Group Steering Committee and the NHS England Lung Cancer Expert Group.

***Abstract:*** There is marked variation in lung cancer surgical resection rates across the UK from 10% in the lowest performing trusts to 37% in the highest. This may reflect differences in pre-operative assessment, access to surgery and adherence to accepted best practice & guidelines. Reducing this variation would bring significant benefit to patients by ensuring equitable access to surgical treatment and help the UK achieve lung cancer outcomes comparable to other European countries. In this presentation we will discuss one approach to addressing this issue through the implementation of higher risk multi-disciplinary team meetings (HR-MDTs). HR-MDTs offer the opportunity of standardising preoperative work-up, maximising surgical access and ensuring second opinions for patients in whom risk is initially considered prohibitive for surgery. Key topics for discussion will be: the case for change for widespread adoption of HR-MDTs, duties and responsibilities of a HR-MDT, service delivery model, interdependence with other services, performance metrics, future research recommendations, protocol development and examples of existing HR-MDT protocols.

**Dr Mario Giardini**

***Biography:*** Mario Ettore Giardini is Senior Lecturer at the Department of Biomedical Engineering of the University of Strathclyde.

Electrooptical engineer and computer scientist by education, since 1997 his activity has focussed on the interface between medicine, engineering, physics and industry. His experience spans from application-dedicated devices, sensors and systems, to large-scale instruments, to computational methods and software libraries, with a constant attention to field deployment and industrial roll-out.

His current focus is on sensing, digital healthcare, portable clinical equipment, and field diagnostic equipment. Activities have touched photonics for robotics and capsule

sensors, devices for ophthalmic imaging and measurement of visual performance, telemedicine, image acquisition and processing, in-vivo spectroscopy, virtual and augmented reality.

He has been co-recipient of an INDEX 'Design to Improve Life' award in 2015. He is sole or co-inventor in 18 patent families, member of the IEEE Engineering in Medicine and Biology Society, of the Institution of Engineering and Technology - IET, UK, and Fellow of the Institute of Physics and Engineering in Medicine - IPEM, UK.

**Dr Guy Glover**

***Biography:*** Dr Glover trained in Anaesthesia and Critical Care in Yorkshire before being appointed as a Consultant in Critical Care at Guy's and St Thomas' NHS Foundation Trust (GSTT), London in 2009. He has been part of the Severe Cardiac and Respiratory Failure / ECMO service since its inception in 2010 having received additional training in ECMO centres in the UK and Germany. GSTT is one of five nationally commissioned ECMO centres which offers both respiratory and cardiac ECMO as well as eCPR and is one of the largest centres in Europe, delivering ECMO to more than 20 patients simultaneously during the Covid-19 pandemic. Dr Glover led the use of volatile anaesthetic agents in critical care at GSTT and has been an adviser for NICE on the Medical Technologies Advisory Committee evaluating the use of this therapy. Research interests include the effects of volatile sedation on respiratory function in ARDS, targeted temperature management and rapid response systems in hospitals.

**Dr Chris Hawthorne**

***Biography:*** Dr Hawthorne is a Consultant in Head and Neck Anaesthesia and Neurocritical Care at the Institute of Neurological Sciences in Glasgow and is a current NHS Research Scotland Fellow. He graduated from the University of Edinburgh with a BSc in Neuroscience, completed his MBBS at University College London and his MD in Physiological and Pharmacological Modelling at the University of Glasgow. His clinical work is focused on the care of patients with brain and spinal injuries while his research reflects the belief that the innovative use of technology can lead to advances in patient care. He has been funded by the National Institute of Academic Anaesthesia and Innovate UK. Ongoing projects involve the use of informatics based techniques to interpret monitoring data from neurological intensive care patients and the application of pharmacokinetic pharmacodynamic modelling in anaesthesia.

**Mr Simon Kendall**

***Biography:*** We are moving the focus of the cardiac surgical audit to excellence in patient outcomes for the whole unit, and away from the performance of the individual surgeon. The audit will give ownership of every patient journey to the whole team and not regarded as the responsibility of one surgeon – the language will change from 'Mr(s) X's patient has done badly' to 'our patient has done badly'. The team ethos will ensure the team look after new appointees with good support and mentorship.

Team based reporting is already used in the other HQIP/NCAPOP audits in cardiothoracic surgery (the NICOR National Congenital Heart Disease Audit and the Lung Cancer Clinical Outcomes Publication), documenting improvements in care for both. Our proposals will bring the adult cardiac surgery into alignment with these and other NCAPOP audits. Furthermore, it will give assurance that there is no negative variation within the team.

The standards in the audit can be linked to other work streams, such as GIRFT or other reports, such as mortality reviews of individual units.
Fundamentally this proposal is suggesting the audit changes from 'The pilot is safe' to 'The airline is safe', whilst still ensuring all the pilots are fit to fly.

**Mr Alan Kirk**

***Biography:*** Alan Kirk is a General Thoracic Surgeon and Clinical Director of Cardiothoracic Surgery at the West of Scotland Regional Heart & Lung Centre in the Golden Jubilee National Hospital.

He is a graduate of the University of Glasgow and his surgical training was in Glasgow, Newcastle and Bristol.

Alan works in a team that provides the full range of Thoracic Surgery including high volume robotic surgery. His main clinical interests are thymic & mediastinal surgery and lung volume reduction techniques. He is a past Secretary of ITMIG.

Within the Thoracic Surgical research portfolio at the Golden Jubilee, there have been a number of practice-changing clinical studies in endobronchial valve therapies for the treatment of patients with advanced COPD and emphysema.

**Dr Nicholas Lees**

***Biography:*** Nick Lees has been a Consultant in Critical Care and Anaesthesia at Harefield and Royal Brompton Hospitals for ten years. His interests are in cardiothoracic transplantation, short and long-term mechanical circulatory support and high-risk cardiac cases. He is also involved in cardiogenic shock pathways, ECMO retrieval and echo education.

***Abstract:*** In this talk I will discuss the various devices involved in cytokine haemoadsorption and potential roles in the ITU and operating theatre. I will discuss the evidence and discuss experience from my own practice.

**Dr Nandor Marczin**

***Biography:*** Dr Nandor Marczin is Clinical Senior Lecturer at Imperial College London and honorary consultant in Adult Cardiothoracic Anaesthesia at the Royal Brompton and Harefield NHS Hospitals. He completed his residency at Pecs Medical University in Hungary, was junior faculty member at the Medical College of Georgia in the USA, and fellow at Harefield Hospital and Imperial College London. He was the recipient of the Medical Research Council Clinician Scientists Fellowship. He has twenty years of experience as consultant in one of the world's busiest cardiothoracic specialist centre at Harefield Hospital, practicing the full spectrum of cardiothoracic surgery with major clinical interests in transplantation, mechanical support and ex vivo heart and lung perfusion. Dr Marczin's research is focusing on basic mechanisms of perioperative inflammation and metabolic derangements with a strong emphasis on real time molecular diagnostics at the bedside and novel therapies. Dr Marczin is the immediate past chair of the Transplant and VAD subcommittee and member of the Thoracic subcommitteee of the European Association of Cardiothoracic Anaesthetists. He chaired the recent consensus on Anaesthesia and Intensive Care manegement of Lung Transplantation and scientific coordinator of EACTA Thoracic anaesthesia consensus development (TOSSCA). He is the incoming chair of the ESAIC Cardiothoracic and Vascular Scientific Subcommittee.

***Abstract:*** This talk summarises state of the art of lung injury relevant to thoracic surgery and principal protective management strategies. Lessons learnt from animal models of ventilation induced lung injury and ischaemia reperfusion injury will be briefly reviewed emphasizing the importance of multiple hit theories and emphasizing the role of monocyte, cytokine and metabolic concepts. Evidence for lung injury in thoracic surgery will be presented and recent understanding of determinants of lung injury during one lung ventilation, especially the role of driving pressure will be established. Ongoing clinical trials including PROTHOR will be reviewed. As a more severe lung injury, the presentation will conclude on Primary Graft Dysfunction following lung transplantation. New concepts including evidence obtained from ex vivo lung perfusion (DEVELOP-UK

trial) and recent relevant recommendations by the multisociety consensus on perioperative management of lung transplantation will be presented.

**Prof Daniel Martin**

***Biography:*** Daniel is the Professor of Perioperative and Intensive Care Medicine at Peninsula Medical School, University of Plymouth, and an intensive care consultant at Derriford Hospital in Plymouth. He is interested in oxygen physiology, in particular how humans respond and adapt to low levels of oxygen. This interest arose from his involvement in a series of research expeditions to high altitude with the Xtreme Everest team. In 2007, as part of his PhD, he took arterial blood samples from himself and others near the summit of Mount Everest and reported some of the lowest oxygen levels ever reported. Daniel is now the chief investigator of the UK-ROX trial, a study to evaluate the benefit of conservative oxygen therapy in 16,500 patient study across 100 intensive care units in the UK. Daniel is also the director of the Centre for Altitude, Space and Extreme Environment Medicine and Editor in Chief of the Journal of the Intensive Care Society.

***Abstract:*** Despite the fact that we have been using oxygen as part of a balanced anaesthetic for around 150 years and as medical therapy for 130 years, we still do not know how much we should give to patients in order to balance its potential benefits and harms. It is the commonest drug we give to patients undergoing anaesthesia and those admitted to intensive care, yet we have largely chosen to ignore the toxic side effects of this gas and instead adopted the principle of 'if in doubt give more oxygen.' High concentration oxygen leads to the generation of reactive oxygen species that disrupts cellular structure and function. The commonest clinical manifestation of oxygen toxicity is an acute lung injury. However, one potentially beneficial result of the oxidative stress induced by hyperoxia is that it may be effective in reducing surgical site infections when used perioperatively. But the evidence surrounding this is somewhat perplexing, so it remains an uncommon practice. Amongst acutely unwell patients, there is emerging data that supports the use of less rather than more oxygen but how much less and in which specific patients, we just do not know yet. So, we probably need to review our use of this essential but toxic gas and support studies seeking to fine-tune our use of it during anaesthesia and in the critically ill.

**Dr Guillermo Martinez**

***Biography:*** Dr Guillermo Martinez completed his training in Anaesthesia and Intensive Care in Madrid, Spain 2008. Subsequently, he undertook a Cardiothoracic Anaesthesia Fellowship at Papworth NHS Foundation Trust, Cambridgeshire UK.

Dr Martinez is currently a consultant anaesthetist and clinical lead for theatres at Papworth Hospital. He has special interest in thoracic anaesthesia and enhanced recovery programme for thoracic surgery. Dr Martinez area of research includes non-intubated thoracic anaesthesia, regional anaesthesia of the trunk, high-flow nasal oxygen in thoracic surgery and opioid free anaesthesia for cardiothoracic surgery. He provides anaesthetic care for cardiothoracic surgery patients, including anaesthesia for heart and lung transplantation, pulmonary endarterectomy, TAVI and tracheal resection surgery.

Dr Martinez has also developed a special interest in pulmonary hypertension and balloon pulmonary angioplasty for patient with chronic thromboembolic pulmonary hypertension.

***Abstract:*** The conventional approach for general anaesthesia for thoracic surgery is currently based on a balance anaesthesia concept that involved the use of a hypnotic, an opioid, a muscle relaxant and the association of a neuraxial or regional block. Although the deleterious effect of opioids on patient recovery is well known, that group of drugs remain a pillar for perioperative pain control. Recent data suggest that in addition to the side-effect such as drowsiness, respiratory depression, urinary retention, ileus and post-op delirium, opioids are not better for pain control than those other multi-modal

techniques, they may increase the risk of cancer recurrence and have a negative impact on immunity. Since opioid-free anaesthesia has proven to be safe in non-thoracic anaesthesia settings, our team implemented an opioid-free strategy for thoracic anaesthesia that has shown to be reproducible and effective for pain control. Preliminary data suggest that it is better for patient recovery with similar pain scores that opioid-based anaesthesia, however, there is a need for further research to show the real magnitude of that impact.

***Suggested Reading:***


1. **Maher et al.** Association of increased postoperative opioid administration with non-small-cell lung cancer recurrence: a retrospective analysis. British Journal of Anaesthesia 113 (S1): i88–i94 (2014)
2. **Calvin et al**. Perioperative opioid analgesia—when is enough too much? A review of opioid-induced tolerance and hyperalgesia. www.thelancet.com Vol 393. April 13, 2019.
3. **Devine G**, Cheng M, Martinez G, et al. Opioid-free anesthesia for lung cancer resection: A case-control study. J Cardiothorac Vasc Anesth 2020 [e-pub ahead of print]. Doi:10.1053/j.jvca.2020.05.022.


***Learning Objectives:***

After the session the attendee should be able to:

1. Describe the effect of opioids on pain pathways in terms of analgesia, opioid tolerance, opioid-induced hyperalgesia and allodynia.
2. Name the main alternatives drugs to create an opioid free multimodal analgesia.
3. Demonstrate a good understanding of the role of a regional pain control and its combination with non-opioids pain modulators.

**Dr Philip McCall**

***Biography:*** Dr McCall is a Consultant in Cardiothoracic Anaesthesia and Intensive care at the Golden Jubilee National Hospital and Honorary Clinical Senior Lecturer at the University of Glasgow. His research interests are in cardiothoracic anaesthesia and intensive care. This includes; outcomes following lung resection and the cardiovascular response to critical illness.

***Abstract:*** Acute Kidney Injury is associated with increased perioperative morbidity and mortality. This talk will look at the incidence of post-operative renal dysfunction, its impact on outcome, factors associated with its development, and most importantly, what can be done to try and protect the kidneys perioperatively.

**Prof Brendan McGrath**

***Biography:*** Brendan qualified from the University of Sheffield and trained initially in general medicine in Yorkshire, the Northeast and then Australia. He returned to specialise in Anaesthesia & Intensive Care Medicine, appointed as a consultant at Manchester University NHS Foundation Trust, at Wythenshawe Hospital in 2009.

Brendan's research interests in patient safety and airway management led to the initiation of the UK National Tracheostomy Safety Project, collaborating widely in developing educational resources to guide the multidisciplinary response to airway emergencies. Realising that the real work was in prevention of airway emergencies, Brendan helped to develop the Global Tracheostomy Collaborative in 2012, bringing together international expertise from Harvard to Melbourne with the goal of improving tracheostomy care 'everywhere' through quality improvement initiatives. Brendan has worked on and led a number of domestic and international quality improvement projects

and research studies, securing significant grant funding. His contributions in his field were recognised by appointment as:

- Difficult Airway Society Professor of Anaesthesia & Airway Management 2021
- Royal College of Anaesthetists Macintosh Professor 2021
- Visiting Professor to Harvard Medical School in 2016
- NHS England National Clinical Advisor for Tracheostomy in 2015

He remains European lead of the Global Tracheostomy Collaborative, supporting UK and European sites to improve care for patients and their families.

Brendan and his team have won a number of awards for their work, including:

- British Medical Journal Award for Anaesthesia & Perioperative Medicine Team of the Year 2020
- Intensive Care Society Improvement Project Award 2020
- National Institute of Academic Anaesthesia Research Award 2019

Outside of medicine, Brendan is entertained by a young(ish) family, plays guitar in the family rock band, “Death Metal Children of Rock,” attempts to support Liverpool FC whilst living near Old Trafford, and tries to ride his road bike when it isn’t raining (too hard).

**Dr John Moore**

***Biography:*** Dr John Moore is a Consultant in Anaesthesia and Intensive Care Medicine in Greater Manchester.

John is the Clinical head of Division for Anaesthesia, Critical care and Peri-operative medicine at Manchester University Hospitals and leads a team of over 200 consultants and more than 900 nurses across multiple hospitals, for one of the largest Trusts in the UK.

He has been a serial innovator and led the development of the ERAS+ [www.erasplus.co.uk] peri-op surgical pathway which has successfully reduced peri-op complications and length of stay for major surgical patients both in a single centre and more latterly as part of the Health Foundation supported Greater Manchester ERAS+ project, which showed benefit for scaling over 6 further NHS hospitals.

Building upon ERAS+, he led the development and implementation of the system wide GM Cancer prehabilitation and recovery programme, Prehab4Cancer, [www.prehab4cancer.co.uk], which has benefited over 2000 patients (2019-2021), undergoing cancer treatment in Greater Manchester.

Alongside his success in implementation, John holds honorary research positions as Senior Lecturer at the University of Manchester and Manchester Metropolitan Universities and co-leads the digital programme EMBRACE.

**Prof Gavin Murphy**

***Biography:*** Gavin Murphy is an academic cardiac surgeon at the University of Leicester. He graduated in Medicine at the University of Bristol and went on to obtain his MD from the University of Leicester. He trained in Cardiothoracic Surgery in the South West of England and in Lausanne Switzerland, and was appointed as a Walport Consultant Senior Lecturer in Cardiac Surgery at the University of Bristol in 2007. He was appointed to the British Heart Foundation Chair of Cardiac Surgery at the University of Leicester in 2012.

His research interests include diseases affecting the thoracic aorta, blood management (TiTRE2 trial, NEJM 2015), and the prevention of perioperative organ injury. His research has been awarded the Ronald Edwards Medal and the John Parker Medal by the Society for Cardiothoracic Surgery in Great Britain and Ireland, and the Hans G Borst Award for Thoracic Aortic Surgery, by the European Association of Cardiothoracic Surgeons. He is the Director of the Leicester CTU, the Cardiothoracic Surgery Lead for the Royal College of Surgeons of England Clinical Trials Initiative.

***Abstract:*** Cardiovascular surgery is undergoing a transition from high throughput elective surgery to more integrated hybrid care of increasingly elderly people with multimorbidity and complex cardiac disease. The best way to address this transition, and to ensure that people with cardiovascular disease receive high quality evidence based care, is through research. This research should have service users at its core, and capitalise on the unique NIHR research infrastructure that is present in the UK. Over the last three years the SCTS, the RCS, and the BHF have coordinated to develop a national clinical trials initiative in cardiac surgery. Key steps included 1. The completion of a James Lind Alliance (JLA) Priority Setting Partnership (PSP) to establish research priorities. 2. The development of a national research network to support multicentre studies. 3. The accreditation of a new RCS Trials Centre in Cardiovascular Surgery. 4. The development of a national PPI group to ensure stakeholder engagement. 5. The launch of nine new clinical study groups whose aims were to develop the research questions identified by the JLA into clinical trial proposals, and 6. The implementation of 3 new clinical research programmes. Cardiothoracic anaesthetists and intensivists have been central to this initiative throughout. This presentation will highlight further opportunities for collaboration and participation.

**Mr Niall O'Keeffe**

***Biography:*** Consultant in Cardiothoracic Anaesthesia and Intensive Care at Manchester Royal Infirmary and Honorary Senior Lecturer at the University of Manchester.

Went to medical School in University College Cork and completed training in Linerich, Sheffield, Manchester and Ann Arbor Michigan before moving to current post in 1994.

**Abstract:** A lot of progress has been over recent years in improving mortality in cardiac surgery but we should continue to try and raise the bar. Cardiac surgeons have been very brave in leading the way in publishing individual surgeon's data, but this has also had drawbacks, not least in resulting in risk aversion where surgeons are reluctant to take on higher risk patients as it will adversely affect their results.

It does also seem unfair that surgeons are named and shamed when things go badly, or patients do not do well when many things are beyond their control. Most patients who do not do well will have a protracted stay on ITU and many things can happen to the patients during this time, often beyond the control of the surgeon which can have an impact on their outcome. There are many steps along the patient pathway from listing for surgery to the perioperative period and the post operative management and many different healthcare professionals will be involved in delivering the care, so we need to move to a much more collaborative approach. ACTACC have been collaborating with SCTS and the cardiological societies, nurses and allied health care practitioners to produce guidelines going forward which develop multidisciplinary participation both in planning and in service delivery.

Going forward data will no longer be collected and published by individual surgeons, rather unit-based data will be collected and unit performance is what will be scrutinised. In the fullness of time, it may also be possible to use ICNARC to benchmark ITU services as part of the overall unit assessment.

On a more general note, it had been hoped to organise a joint ACTACC/SCTS meeting for this November but obviously events have overtaken this plan and we have ended up with the ACTACC ASM being in November instead. Hope fully we will still manage to have another joint meeting with SCTS in the not too distant future.

**Dr Ben Shelley**

***Biography:*** Dr Ben Shelley is a Consultant in Cardiothoracic Anaesthesia and Intensive Care at the Golden Jubilee National Hospital and Hon. Clinical Associate Professor at the Academic Unit of Anaesthesia at the University of Glasgow where he completed his MD thesis on 'Acute Lung Injury after Lung Resection' in 2015. Dr Shelley is heavily involved in a range of perioperative and intensive care research in the cardiothoracic surgical population, and in 2021 was awarded the prestigious NIAA / RcoA British Oxygen Company Chair of Anaesthesia Research Grant to continue his group's work into the 'Impact, Mechanisms and Prevention of Perioperative Right Ventricular Dysfunction'.

**Mr John Sturrock QC**

***Biography:*** John Sturrock QC left the practice of law in 2002 and is founder and senior mediator at Core Solutions. He also acts as a mediator through Brick Court Chambers in London. As a pioneer of mediation throughout the UK, with an international reputation, his work extends to the commercial, professional, sports, public sector, policy and political fields. He is identified as a Global Elite Thought Leader in mediation by Who's Who Legal, is a Distinguished Fellow of the international Academy of Mediators and has been a Visiting Professor at the University of Edinburgh. He recently published a book entitled "A Mediator's Musings."

In 2019, John conducted a review into allegations of bullying and harassment in NHS Highland, for the Cabinet Secretary for Health in Scotland. His report has been influential across the NHS in Scotland. John also specialises in facilitation, negotiation, mediation and conflict management training and consultancy for public sector leaders, civil servants, politicians, and sports and business leaders. He is a regular commentator on policy, politics and conflict resolution – see his blog posts here. For many years, he has worked with various parliamentary bodies throughout the UK on effective scrutiny of policy. He is founder of Collaborative Scotland, which promotes non-partisan respectful dialogue. He was a member of the Stewarding Group for Scotland's first Citizens' Assembly.

***Abstract:*** One of the catchphrases in the speaker's report into allegations of bullying and harassment in NHS Highland two years ago was: "Fear cannot be the driver". That was prompted by the realisation that many of the human difficulties which occur in the NHS and elsewhere are driven by underlying fear. Fear can lead to sub-optimal performance, especially if anxiety becomes widespread.

Fear can manifest itself in a number of ways including feelings of threat, of anticipated loss, and anger or aggression directed towards others. Those perceived as bullies often feel bullied themselves as fear rebounds up and down and in and around the system. All of this may become institutionalised, especially if behaviour coming from the top is unhealthy.

Seeing others, including those who do us wrong, through the lens of compassion takes great courage and self-discipline. To understand that there are, almost invariably, two or more sides to every story: "they" may be just as "right" as you are, is hard. It just depends on your perspective or standpoint.

To be able to talk openly and candidly without fear, in safety and security, about what matters to you, is vital. To do so, you need to respect colleagues and feel respected by them. This is a skills issue. Building relationships of respect and trust deserves the same resources and infrastructure as we devote, say, to technological skills. We can all learn to have better conversations with better outcomes.

**Dr Lorna Swan**

***Biography:*** Dr Swan has recently joined the Scottish Adult Congenital Cardiac Service at the Golden Jubilee Hospital in Glasgow. Over the last 15 years she has worked at two of the largest ACHD units in the world – the Toronto Congenital Cardiac Centre for Adults and the Royal Brompton Hospital ACHD unit.

Lorna completed her undergraduate medical training (1992) and postgraduate cardiology training in Glasgow. During this period she completed a Research MD thesis at the University of Glasgow. In 2001 she undertook a 2 year Clinical Fellowship as the Joint Royal Brompton/Toronto Adult Congenital Cardiology Fellow. Following a locum consultant appointment in Scotland Lorna took up her Royal Brompton position in 2006. She was the Program Director for 8 years supporting a team of six full-time ACHD cardiology consultants, three ACHD surgeons and three Clinical Nurse Specialists. Before moving to Canada in 2018 Lorna was a council member of the British Congenital Cardiovascular Association (BCCA) and a Nucleus Member of the ESC GUCH working group. During her time as a Staff Cardiologist in Toronto Lorna's clinical and academic remit included Pregnancy-related Cardiology and Transition. In recent years she co-authored the 2018 ESC Pregnancy & Cardiac disease guidelines, co-edited a Springer series book on ACHD Heart failure and co-authored the 2020 Canadian Cardio-obstetric guidelines.

***Abstract:*** The Adult Congenital Heart Disease population is becoming older and more complex. Planned and emergent admissions to high dependency and intensive care are increasing mainly due to re-operation, heart failure and endocarditis. This presentation will focus on how this population is changing and how this impacts on delivery of care. A general overview of contemporary ACHD care will also be discussed including an update on nomenclature and common acute presentations.

**Dr Iain Thomson**

***Biography:*** Iain is a consultant anaesthetist at a large teaching hospital and is departmental lead for regional anaesthesia with an interest particularly in chest wall analgesia. An early adopter of the chest wall fascial plane blocks, he is experienced in provision of these for a multitude of elective and emergency truncal indications and he provides an anaesthesia service for awake breast surgery, usually with paravertebral blocks.

In September 2021, QEUH became a major trauma centre and sees multiple presentations of chest wall trauma each week. In May 2020, Iain set up a block room facility to provide good quality analgesia with parallel theatre processing, but also serves to meet the needs of chest wall trauma patients in critical care or the major trauma ward.

***Abstract:*** There has been an explosion of interest in chest wall fascial plane blocks over the last decade, partly due to their accessibility to non-expert regional anaesthetists.

Additionally, the consequences of bleeding or infection is unlikely to be as severe as with epidurals or paravertebral blocks (PVB), allowing placement in those patients where epidural or PVB is contraindicated. The ongoing debate is whether, how, and for what they work, and are they any better than what we have already?

Largely from a chest wall trauma standpoint this talk will describe 3 blocks, the erector spinae plane (ESP), serratus plane (SPB), and the pectointercostal fascial plane (PIFB)

blocks with how-to tips and suggestions on how these may be useful for cardiac or thoracic surgery.

**Dr Niki Walker**

***Biography:*** Dr Niki Walker is a Consultant Cardiologist specialising in adult congenital heart disease. She is clinical lead of the Scottish Adult Congenital Cardiac Service. Her sub-specialty interests are ACHD intervention and Cardiac Obstetrics.

**Prof Henry Watson**

***Biography:*** *Henry Watson, Emeritus Professor, University of Aberdeen. Until recently consultant haematologist with interest in Haemostasis and Thrombosis.*

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