



STEPHEN C CLARK

BMedSci(Hons), BM, BS, DM, FFST, MAMSE, RCPATHME, MIOI,
FACS, FESC, FACC, DLM, JP, FRCP, FRCS

PROFESSOR OF CARDIOTHORACIC & TRANSPLANT SURGERY

Cardiothoracic Centre
Freeman Hospital
Newcastle upon Tyne
United Kingdom
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CONTACT

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PERSONAL DETAILS

Nationality : British
Date of Birth : 14th October 1965
GMC Number : 3406881
ICO Certificate : ZA341529
Date of Appointment : 1st December 2000

CURRENT POST

Consultant Cardiothoracic & Cardiopulmonary Transplant Surgeon | Medical Examiner
Newcastle upon Tyne Hospitals NHS Trust

Professor of Cardiothoracic Surgery & Cardiopulmonary Transplantation
Department of Applied Science, Faculty of Health & Life Sciences
University of Northumbria

Chairman of the European Board of Cardiothoracic Surgery
European Association of Cardiothoracic Surgery

Vice President
United Kingdom Chapter, American College of Surgeons

Board Member
European Cardiothoracic Transplant Association, European Society for Organ Transplantation

Magistrate
Criminal Court, North Northumbria Local Justice Area

QUALIFICATIONS

Bachelor of Medical Science
FIRST CLASS HONOURS
University of Nottingham
(July 1987)

Bachelor of Medicine, Bachelor of Surgery
WITH COMMENDATION
University of Nottingham
(July 1989)

Diploma of Fellow of the Royal College of Surgeons
of England
Clinical Surgery in General Section
(May 1993)

Doctorate of Medicine
University of Nottingham
(July 1999)

Intercollegiate Specialty Examination in
Cardiothoracic Surgery
(October 1999)

Fellow of the Faculty of Surgical Trainers
Royal College of Surgeons of Edinburgh
(September 2015)

Fellow of the Royal College of
Physicians of Edinburgh
(June 2016)

Fellow of the American College of Surgeons
(October 2019)

Member of the Royal College of
Pathologists (Medical Examiner)
(November 2019)

Member of the Academy of
Master Surgeon Educators
American College of Surgeons
(October 2021)

Diploma in Legal Medicine
Faculty of Forensic and Legal Medicine
Royal College of Physicians of Edinburgh
(November 2021)

Fellow of the European Society of Cardiology
(December 2021)

Fellow of the American College of Cardiology
(May 2022)

SUMMARY

I am the Professor of Cardiothoracic Surgery and Cardiopulmonary Transplantation at Freeman Hospital, Newcastle upon Tyne and the Faculty of Health and Life Sciences at the University of Northumbria. After qualifying in 1989, I was appointed as a Consultant in December 2000 after training in London, Cambridge, Newcastle and Toronto. I currently practice widely in all forms of adult cardiac surgery including cardiopulmonary transplantation and was the Trust Clinical Director for Quality and Patient Safety between 2016 and 2019.

I am a former Director of Cardiopulmonary Transplantation at Freeman Hospital and an expert for the Parliamentary and Health Service Ombudsman. I am a Medical Examiner for the Newcastle upon Tyne NHS Hospitals Foundation Trust and am the Chairman of the European Board of Cardiothoracic Surgery. I am a Board Member of the European Cardiothoracic Transplant Association within the European Society for Organ Transplantation.

In the past I have been an Assessing Examiner for Intercollegiate Basic Surgical Examinations at the Royal College of Surgeons of England and a College Assessor. I have also acted as a Specialist Performance Assessor for the General Medical Council, a Specialty Advisor in Cardiac Surgery for NICE and a member of the Specialist Advisory Committee in Cardiothoracic Surgery. I have recently concluded my term as a Trustee on the Executive of the Society for Cardiothoracic Surgery in Great Britain and Ireland (SCTS). I am a former member of the SCTS Transplantation Working Group and an Editorial Board Member for the Journal of Cardiothoracic Surgery. I have very recently ended my term as the Clinical Director of Surgery, Anaesthesia and Critical Care for the Cardiothoracic Division.

NON - PROFESSIONAL QUALIFICATIONS 1

Diploma in Medical Law and Ethics
Elearn College, London (May 2020)

Mini-MBA Diploma
(Master of Business Administration)
International Business
Management Institute, Berlin, Germany
(May 2020)

Incorporating individual certificates in:
Economics and International Business,
Essential Management Skills,
Finance/Accounting, Human Resource
Management, Marketing/Communications
and Strategy/Operations

**Certificate in Leadership and
Team Development**
International Business
Management Institute, Berlin, Germany
(May 2020)

**Professional Certificate in Leadership Skills
of Change Management**
*Metropolitan School of Business and
Management, London*
(May 2020)

Certificate in Agile Leadership
*Vienna University of
Economics and Business* (August 2020)
This 4 week course covered 26 hours of study
involving the concept of leadership agility and
successful transformation alongside the
development of an agile mindset. Course work
covered autonomy, decision making,
collaboration and redesign of structures to
facilitate flow of information and transparency
Critical success factors for agile transformation
were developed.

**Advanced Professional Certificate in
Business Administration**
*Metropolitan School of Business and
Management, London*
(September 2020)

Certificate in Crisis Management
International Business
Management Institute, Berlin, Germany
(October 2020)

**Certificate in Basics of
Innovation Management**
International Business
Management Institute, Berlin, Germany
(October 2020)

Certificate in International Law
International Business
Management Institute, Berlin, Germany
(October 2020)

MANAGEMENT & LEADERSHIP 1

Head of the Department of Cardiothoracic Surgery 2005-2008, 2017-2018.

Member of the Institute of Transplantation Clinical Executive Committee 2013-2016

Deputy Director of Cardiopulmonary Transplantation 2010-2011

Director of Cardiopulmonary Transplantation 2012-2016, 2019 to 2022.

Deputy Clinical Director, Cardiothoracic Services, 2022 to 2023

Clinical Director for Cardiothoracic Surgery, Anaesthesia and Critical Care 2023 to date

Clinical Director for Quality and Patient Safety for Newcastle upon Tyne Hospitals NHS Foundation Trust from April 2016 to June 2019. In this role my duties included Medical Director on call (I was the Silver Commander for the Major Incident declared by the Trust in July 2017), Medical Directors representative on Consultant appointment panels, Disciplinary hearings, Serious Incident Panel, Complaints Panel, Clinical Risk Group, Clinical Policy Group, Sign up to Safety Surgical Workstream Group, Clinical Governance and Risk meetings, Datix review and investigation, Duty of Candour – Trust lead, Corporate Medical Team meetings, Clinical Governance and Quality Committee meetings, Senior Clinical Leaders Committee

Lead for Quality and Safety in the Department of Cardiothoracic Surgery.

I authored the Departmental Manual of Cardiothoracic Surgery and a full Departmental clinical protocol for all aspects of cardiac and thoracic surgery, unifying patient management protocols for all Consultants to ensure consistency of patient care.

I developed patient safety checklists for cardiac, thoracic and transplant surgery as well as TAVI which have been adopted nationally and sanctioned by the SCTS and NPSA. Checklists have been endorsed by the European Association for Cardiothoracic Surgery and adopted across Europe since September 2011.

Lead for the Development of the Cardiothoracic Surgery Nurse Practitioner Programme.

I developed a unique one year academic and clinical training scheme and recruited eight nurse practitioners to provide full time care for ward based patients and the pre-admission clinic. After successful completion of the required clinical competencies and academic courses (including clinical skills course and non-medical prescribing course) this group replaced the junior doctors on our wards from June 2010. The scheme was recognized by winning the **SCTS prize** for best presentation at the cardiothoracic forum in 2011.

In 2019 I qualified as a **Medical Examiner**. In this role I agree the proposed cause of death and the overall accuracy of the medical certificate cause of death, discuss the cause of death with the next of kin/informant and establish if they have any concerns with care that could have impacted/led to death.

I act as a medical advice resource for the local coroner, inform the selection of cases for further review under local mortality arrangements and contribute to clinical governance procedures. I provide much-needed support for bereaved families and improve patient safety.

Medical examiners are employed in the NHS system, with a separate professional line of accountability, allowing for access to information in the sensitive and urgent timescales surrounding death registration – but with independence necessary for the credibility of the scrutiny process.

I am a **Member of the Institute of Leadership (MOL)**.

NON - PROFESSIONAL QUALIFICATIONS 2

Advanced Professional Certificate in Applied Corporate and Business Law
Metropolitan School of Business and Management, London
(October 2020)

Certificate in Machine Learning
Lead Academy, London
(December 2020)

Certificate in Coaching and Mentoring
Level 3 EMBA and ASIC
accredited qualification
Cambridge Management and Leadership School, Cambridge
(December 2020)

Certificate in Fundamentals of Machine Learning in Healthcare
Stanford University, USA
(May 2021)

Leaders of Learning Certificate
Harvard University, USA
(May 2021)

Certificate in Innovation Management
Erasmus University, Rotterdam
(May 2021)

Certificate in Bioethics - The Law, Medicine, and Ethics of Genetics
Harvard University, USA
(May 2021)

Certificate in Inspiring and Motivating Individuals
University of Michigan, USA
(May 2021)

Leadership and Followership Course
Open University
(June 2021)

Building High Performing Teams Certificate
University of Pennsylvania, USA
(June 2021)

MANAGEMENT & LEADERSHIP 2

As part of my professional development I completed a **Mini-MBA Diploma (Master of Business Administration)** with the **International Business Management Institute, Berlin, Germany** in May 2020 incorporating individual certificates in: Economics and International Business, Essential Management Skills, Finance/Accounting, Human Resource Management, Marketing/Communications and Strategy/Operations.

I also completed a **Certificate in Leadership and Team Development**, a **Certificate in Crisis Management** and a **Certificate in Basics of Innovation Management** at the same institution in October 2020.

I gained a **Professional Certificate in Leadership Skills of Change Management** at the **Metropolitan School of Business and Management in London** in May 2020 and an **Advanced Professional Certificate in Business Administration** and an **Advanced Professional Certificate in Applied Corporate and Business Law** from the same institution in September 2020

I completed a **Certificate in Agile Leadership** at **Vienna University of Economics and Business** in August 2020. This 4 week course covered 26 hours of study involving the concept of leadership agility and successful transformation alongside the development of an agile mindset. Course work covered autonomy, decision making, collaboration and redesign of structures to facilitate flow of information and transparency. Critical success factors for agile transformation were developed.

In 2021 I successfully completed the following University certificate courses :

Certificate in Innovation Management from **Erasmus University, Rotterdam**

Certificate in Bioethics - The Law, Medicine, and Ethics of Genetics from **Harvard University, USA**

Certificate in Inspiring and Motivating Individuals from the **University of Michigan, USA**

Leadership and Followership Course at the **Open University, United Kingdom**

Building High Performing Teams from the **University of Pennsylvania, USA**

Developing an Agile Team Certificate from the **University of Colorado, USA**

Conflict Resolution Skills Certificate from the **Division of Continuing Education University of California, Irvine, USA**

In November 2021 I passed the examination for the **Diploma in Legal Medicine (DLM)** of the **Faculty of Forensic and Legal Medicine** of the **Royal College of Physicians of London**.

I am a member of the **Association for Acute CardioVascular Care (ACVC)**

I am an **Affiliate Member** of the **Faculty of Forensic & Legal Medicine** of the **Royal College of Physicians**

In **June 2022** I attended the 3 day **Strategic Leaders Course** of the **Institute for Healthcare Improvement**

In **July 2023** I was chosen (with 2 colleagues) to undertake a formal **Internal Review of the Paediatric Cardiac Transplant Programme** in Newcastle Upon Tyne in response to an NHSBT CUSUM Signal to make recommendations on service improvements.

NON - PROFESSIONAL QUALIFICATIONS 3

Developing an Agile Team Certificate
University of Colorado, USA
(June 2021)

**Setting Expectations and
Assessing Performance Issues Certificate**
University of California, Davis, USA
(July 2021)

Conflict Resolution Skills Certificate
Division of Continuing Education
University of California, Irvine, USA
(August 2021)

Training and Learning On Line Certificate
University of Leeds
(January 2022)

Professional Certificate in Data Analytics
Google
(January 2021)

**Instructional Methods in Health Profession
Education Certificate**
University of Michigan, USA
(February 2022)

NATIONAL ROLES & LEADERSHIP 1

Specialist Advisor for Cardiothoracic Surgery – National Institute for Clinical Excellence 2009 to date – Developed guidance issued on endoscopic vein harvesting for coronary artery bypass grafting, Levitronix ventricular mechanical assist, thoracoscopic exclusion of the left atrial appendage in non-valvular atrial fibrillation (with or without other cardiac surgery) for the prevention of thromboembolism and normothermic ex-vivo preservation of hearts from brainstem dead donors for clinical transplantation.

Specialty Programme Director for Cardiothoracic Surgery – Confidential Reporting System for Surgery (CORESS) 2009- to date

College Assessor for Consultant appointment committees – The Royal College of Surgeons of England 2009 to date

Member of the Reference Committee – General Medical Council – 2009 to 2013

Member of the Lung Cancer Peer Review Group – North Zone – 2009 to 2012

NHSBT – Heart Transplant Assessment Guidelines Committee – 2010-11

NHS Evidence User Research Panel – 2010 to date

Member of the NHSBT Cardiothoracic Advisory Group 2010-2018

Member of the CTAG Working Party – Increasing Heart and Lung Donation in the United Kingdom – 2011

National Institute for Health Research Health Technology Assessment Programme Expert Reviewer 2011 to date. I have reviewed evidence and given opinions on surgery for atrial fibrillation, ultrasound monitoring of endovascular stent leaks and management of aortic transection, the evidence for surgical fixation of multiple rib fractures, the impact of high flow nasal oxygen in recovery after heart surgery and in 2020 reviewed the proposal identifying the optimal model for the delivery of organ perfusion technology for UK solid organ transplantation. In 2021 I reviewed the video assisted thoracoscopic lobectomy versus conventional open lobectomy for lung cancer (VIOLET) multi-centre trial.

Member of the **NIHR Evaluation, Trials and Studies Co-ordinating Centre (NETSCC) College of Experts** and reviewer of proposals for commissioned research for the NIHR Health Services and Delivery Research Programme.

Guideline Development Group on Idiopathic Pulmonary Fibrosis for the NHS National Institute for Health and Clinical Excellence – 2011. The National Clinical Guideline Centre, hosted by the Royal College of Physicians, was commissioned by NICE to develop an evidence-based clinical guideline on the diagnosis and management of suspected idiopathic pulmonary fibrosis, including pulmonary transplantation. I was selected competitively as the co-opted expert onto this committee as a thoracic and pulmonary transplant surgeon. In this role I advised the panel on the aspects of the guideline related to ventilation, mechanical respiratory support with ECMO or Novalung and the role of lung transplantation.

Member of the **Lung Allocation Working Group** for NHSBT in July 2013

Member of the Council of the **North of England Medico-Legal Society** – 2012-2014.

Member of the Clinical Reference Group for Heart and Lung Transplantation (Adult and Paediatric) for the **NHS Commissioning Board** 2013 until its closure in March 2015. Within this group I was the lead for Commissioning for Quality and Innovation and also led the CRG submission for mechanical bridging to lung transplantation.

OTHER QUALIFICATIONS

United Kingdom Civil Aviation Authority
Private Pilots Licence (Aeroplanes)
(July 2009)

Affiliate Member of the Royal Aeronautical Society (ARAs)

Diploma in Aviation Safety
Level 4 IAP accredited Diploma
ITraining International, London
(December 2020)

Member of the Chartered College of Teaching
(January 2021)

Affiliate Member
Faculty of Forensic & Legal Medicine
Royal College of Physicians. London
(December 2021)

NATIONAL ROLES & LEADERSHIP 2

Deputy Chair of the NHSBT Cardiothoracic Advisory Group (with special responsibility for pulmonary transplantation) in July 2013. Re-appointed by NHSBT to this position for an additional and final two year term in 2016.

Member of the Novel Technologies for Organ Transplantation Steering Group 2013/14

Organizer – Commissioning for Quality and Innovation in Adult Cardiopulmonary Transplantation Meeting held in Newcastle in the Institute of Transplantation in January 2014 bringing all transplant units together in the UK for the first time to discuss practice, outcomes, patient experience and activity.

Member of the **Board of Review of the National Organ Retrieval Service (NORS)** in 2014, commissioned by NHSBT to ensure that the service can meet the requirements of the organisations 2020 strategy. The aim of the review is to benchmark the current service, identify shortfalls and make recommendations to ensure equity, timeliness, flexibility and value for money in the context of future activity projections.

Appointed as an **Associate Advisor in Cardiac Surgery** for the **Parliamentary and Health Service Ombudsman** in 2014 to date. I am also a **Professional Advisor** to the **Scottish Public Services Ombudsman**.

Appointed as a **Clinical and Professional Advisor** to the **Care Quality Commission** in 2014 after competitive interview.

Member of the **Perceval Sutureless Valve Steering Committee** from June 2014.

NICE Advisory Committee Member for the **Surveillance Review** of the **CG163 2011 Idiopathic Pulmonary Fibrosis Guideline** in March 2015.

Peer Reviewer for Cardiopulmonary Transplantation Services for NHS England – 2015

NORS Training and Certification Committee of NHS Blood and Transplant – 2015

Author – Cardiopulmonary Transplantation chapter for the **SAC and SCTs Cardiothoracic Surgery UK Workforce Report 2015 and 2018**

Member – NHSBT National Organ Perfusion Protocol Committee. I was the member responsible for drawing up evidence based practice guidelines for lung transplant organ retrieval and preservation for national adoption in December 2015.

Co-Chairman – NHSBT Working Group 2 – NORS Review Implementation Committee. This group was responsible for devising a national framework for training and certification of retrieval surgeons in the United Kingdom and development of the joint theatre practitioner and transplant practitioner roles following the NORS Review. In this committee we devised a training and certification curriculum for surgeons, modernised and developed the NHSBT Organ Retrieval Masterclass course and created job descriptions and training schemes for new roles within organ retrieval teams including a combined scrub nurse for abdominal and cardiothoracic retrieval and the post of transplant practitioner.

Lead Clinician – Invited External Review of the Cardiopulmonary Transplant Programme – Birmingham University Hospitals NHS Trust – March 2016.

Elected as a **Trustee Member of the Executive Committee of the Society for Cardiothoracic Surgery in Great Britain and Ireland** in 2016-2020. In this capacity I also sit on the Academic and Research Committee as its Trustee member.

Specialty Expert for the **Efficacy and Mechanism Evaluation (EME) Programme, National Institute for Health Research** (Evaluation, Trials and Studies Coordinating Centre) - 2017

PRIZES & AWARDS 1

Nottingham University Exhibition
University of Nottingham 1986

Brian Sanderson Memorial Prize
University of Nottingham 1987

North of England Surgical Society Prize
1996

Geoffrey Giles Memorial Medal
1996

Fellows Surgical Research Fellowship
The Royal College of
Surgeons of England 1996

David Cooper Prize
Society of Cardiothoracic Surgeons
of Great Britain and Ireland 1998

**Ethicon Foundation Fund
Travelling Fellowship**
The Royal College of
Surgeons of England 1999

St. Jude Scholarship
Society of Cardiothoracic Surgeons
of Great Britain and Ireland 1999

Pump Priming Award
The Royal College of
Surgeons of England 2001

Advisory Committee on Clinical Excellence
BRONZE AWARD 2013

Bartholemeuz Oration
Sri Lanka College of Surgeons 2015

Advisory Committee on Clinical Excellence
SILVER AWARD 2016

Dundas Medal
The Royal College of Surgeons of Edinburgh
2018

NATIONAL ROLES & LEADERSHIP 3

Q Fellow – Health Foundation and NHS Improvement July 2018. Member by application of a community of over 2400 people with expertise in making health and care better. Q's mission is to foster continuous and sustainable improvement in health and care, creating opportunities for people to come together as an improvement community to share ideas, enhance skills and collaborate to make health and care better.

It is a network of support for those already knowledgeable in undertaking improvement. Q is delivered by the Health Foundation and supported and co-funded by NHS Improvement.

I am a member of the **Society for Cardiothoracic Surgery in the United Kingdom and Ireland (SCTS) Transplant Sub Committee** since November 2020.

Member of the **Expert Advisory Network of the Royal College of Surgeons of England** since January 2021. This network shapes the future learning agenda of the College with regard to technology, research, innovation and education.

I am a member of the **Society for Cardiothoracic Surgery in the United Kingdom and Ireland (SCTS) Patient Safety Sub Committee** since July 2021.

INTERNATIONAL ACHIEVEMENTS & LEADERSHIP 1

Egyptian Lung Transplant Programme Advisory Team - lead clinician and surgeon 2009

Task Force on Surgical Safety Checklists – Clinical Guidelines Committee Member, European Association for Cardiothoracic Surgery – 2010/11

Istanbul (Turkey) Lung Transplant Program Advisory Team - Surgical Advisor – 2011

Chairman – Sri Lanka Society for Heart and Lung Transplantation – 2015 to date. I have been instrumental in working with local surgeons in Colombo, the Attorney General and Health Minister of Sri Lanka to establish a national program of heart and lung transplantation for the population of Sri Lanka. This has involved detailed work on organ donation legislation, establishment of a network for organ donation and training and mentorship of the surgical team members to prepare for their clinical program.

This work was recognized by the **College of Surgeons of Sri Lanka** by their invitation to me to deliver the **Bartholemeuz Oration** on heart and lung transplantation in November 2015 – the first non-Sri Lankan surgeon ever to be invited to do so.

As a result Sri Lanka performed its first heart transplant case on July 7th 2017 and my contribution was widely cited in the national press reports.

Surgical Techniques in Heart and Lung Donation E Learning Module – developed in 2015/2016 as a joint venture between **NHSBT and the Netherlands Transplant Service** this comprehensive educational tool provides certification in cardiothoracic retrieval for surgeons across Europe. I led this program with my colleague, Dr M. Erasmus. The development of this project took a year of collaborative working to achieve. The module is reality based and interactive supported by video clips, photographs and drawings. It includes the latest techniques in machine perfusion. It can be accessed at www.heartlungdonation.org. Further information on the module can be found at <https://www.esot.org/events-education/events/9068/programme>

I am a **Faculty member** of the **Mentorship Program** of the **International Society of Heart and Lung Transplantation**.

I am a member of the **Association for Acute CardioVascular Care (ACVC)**

ACADEMIC EVALUATION

Web of Science Researcher ID :
N-1748-2019

ORCID ID : **0000-0002-2193-4705**

ResearchGate (RG) Score : **41.32**

The **RG Score** measures scientific reputation based on how my work is received by my peers. The algorithm looks at how peers receive and evaluate my scientific contributions.

My RG score is higher than 97.5% of all ResearchGate members scores for comparison.

This metric stopped being calculated in July 2022.

Total Research Interest score : **1435.5**

This is higher than 95% of all researchers on ResearchGate and higher than 93% of researchers in the speciality of Cardiothoracic Surgery.

Google Scholar Statistics :

Number of Citations - **3841**

H Index : **30**

i10 Index : **63**

CLINICAL RECOGNITION

**Travelling Scholarship
International Society of Heart and Lung
Transplantation 2005**

**Member of the Faculty of
Medical Leadership and Management
2013 to date**

**Advisory Committee on Clinical Excellence
Bronze Award – 2013**

**Nominee – Newcastle upon Tyne Hospitals
NHS Foundation Trust
Personal Touch Award – 2015**

**Advisory Committee on Clinical Excellence
Silver Award – 2016**

Greatix – Learning from Excellence Awards
from staff regarding my clinical care at
Newcastle upon Tyne Hospitals
NHS Foundation Trust:

August 2017

October 2017

June 2018

March 2019

June 2019

August 2019

January 2020

Twice in September 2020

December 2021

INTERNATIONAL ACHIEVEMENTS & LEADERSHIP 2

In 2011 I was asked to develop the **International and Inter-Society Co-ordination Committee** of the **International Society of Heart and Lung Transplantation** to promote co-operation, education and trouble-shooting activities for transplant units worldwide. This was a result of my involvement with lung transplant programs in Egypt and Turkey on behalf of our Trust. In 2012 this committee (also known as **I2C2**) came to fruition and now is a major Committee within ISHLT responding to cardiopulmonary transplant related issues around the world, providing a conduit for inter-society activities such as joint meetings and as a facilitator for developing units in countries outside of North America, Western Europe and Australasia. I acted as the co-chairman of this Committee with Andreas Zuckermann, a transplant surgeon from Austria with whom I collaborated to develop this concept to fruition from its initial founding principles. My term ended in 2018.

In 2013 I was appointed as a member of the **Society of Thoracic Surgeons (STS) Workforce on Patient Safety** and was the only European member on this North American committee. My term ended in 2020.

Appointed as **Chairman** of the Anastomotic Dehiscence Group for the **Consensus Statement on the Definition of Airway Complications after Lung Transplantation** from the **Standards and Guidelines Committee of the International Society of Heart and Lung Transplantation** in 2017/8.

Member of the **Steering Group of the European Society for Organ Transplantation Ex Vivo Lung Perfusion Registry** from May 2015. As a founding member of this committee we developed this Registry to record European practice in ex vivo lung perfusion, track clinical outcomes and compare perfusion protocols. We developed the clinical governance structures, database fields, corporate and societal sponsorship and development to bring this valuable resource to fruition.

Chairman – Sri Lanka Society for Heart and Lung Transplantation – 2015 to date

Member of the **International Board of Reviewers** of the Council of the European Society for Organ Transplantation (ESOT) in 2017.

Member of the **Editorial Board of the Journal of Cardiothoracic Surgery** – since 2020

Vice President - United Kingdom Chapter - American College of Surgeons – since 2020

Academic Editor and Member of the **Editorial Board of the Journal of Cardiovascular Development and Disease** – since 2021

In June 2021 I was elected by members of the European Society for Organ Transplantation to join the **Board of the European Cardiothoracic Transplant Association**

In December 2021 I was awarded **Fellowship of the European Society of Cardiology (FESC)**

In January 2022 I became an expert on the **International Society for Heart and Lung Transplantation Expert-Link program**. This is a micro-mentoring program developed by the Early Career and Trainee Committee to help members find answers and share experiences with others in the field of advanced heart and lung failure, transplantation, mechanical circulatory support, and pulmonary vascular disease.

In May 2022 I was awarded **Fellowship of the American College of Cardiology (FACC)**

In November 2022 I was appointed to the **Steering Committee for Cardiothoracic Transplantation** for the **European Society for Organ Transplantation for the Transplant Learning Journey (TLJ 3.0) Consensus Conference** on machine perfusion.

MEDIA WORK

I have been interviewed by the following media organisations in relation to cardiothoracic surgery and transplantation either in print or on television :

Northern Echo
The Journal
Chronicle Live
BBC Look North
BBC News 24
Channel 5
Sky News
Radio 5 Live
BBC Scotland
RTE Ireland
The Sunday Times
ITV News
The Times
The Times (Sri Lanka)
The Times of India
Deccan Chronicle (India)
BBC Radio
Daily Mirror
Daily Mail
ITN News

EDUCATION & TRAINING ROLES 1

Chairman of the Specialist Training Committee – Northern Region 2004-2008

College Tutor for Cardiothoracic Surgery, Freeman Hospital 2003 to 2012

Educational Supervisor – For ST1, CT1 and the Peri-CCT National Transplant Fellows

Medical Supervisor for two Surgical Care Practitioners, one undertaking a Postgraduate Diploma at Teesside University and another for the Non-Medical Prescribing Course – University of Northumbria 2009 – 2010.

Supervisor for a Nurse Practitioner undertaking an MSc in Advanced Practice in Health and Social Care with the University of Cumbria.

Author - National Standards for Cardiothoracic Organ Retrieval Training – March 2011

Course Organizer and Faculty member of the Cardiothoracic Transplantation section of the **NHSBT/British Transplantation Society Organ Retrieval Masterclass** at Oxford University 2013 to 2015.

Member of the **Specialty Advisory Committee in Cardiothoracic Surgery** for the Joint Committee on Surgical Training (JCST) – Appointed in 2014 until the end of my term in 2019. I held special responsibility for national training in cardiopulmonary transplantation and am the liaison member for the Yorkshire and Humber Region. During my tenure I was involved in the process of curriculum change with the GMC in relation to areas of the curriculum related to heart and lung failure. I developed a quality assurance program for the National Transplant Fellowship program including a process of formal evaluation, a national educational agreement and established an educational fund after collaboration with industry partners. I also undertook the first formal evaluation of the national program measuring the success of the national Fellowship training scheme demonstrating a high level of satisfaction with training and of employment at Consultant level in the UK.

Elected as a **Fellow of the Faculty of Surgical Trainers – The Royal College of Surgeons of Edinburgh – 2015**

SSC Student Medical Supervisor 2009 to date – one student supervised by me won a **Prize from the Royal College of Surgeons of Edinburgh** to support her elective for the audit work undertaken under my supervision (on re-admission to cardiac ITU). Her work was also selected for presentation as a poster at the SCTS Annual meeting in 2011. Another student supervised by me won the **2011 SSC Student Poster Prize**, University of Newcastle Medical School for our audit of Aspirin administration after cardiac surgery. My student (from the Malaysian branch of the University of Newcastle Medical School) won the **SSC Student Medical Photography Prize** in 2015 with a photograph of a quadruple valve replacement for Carcinoid syndrome – the fourth reported case in the world.

British Thoracic Society Lung Transplantation e-Learning Website Video – Speaker on pulmonary transplantation – September 2011.

In 2014 I devised and organized the annual **International Surgical Aspects of Cardiopulmonary Transplantation Course** held over two days in the Newcastle Surgical Training Centre. This course was the first of its kind in the world and gave surgeons in training didactic teaching and hands on cadaveric surgical training experience in heart and lung transplantation, VAD implantation, ex vivo lung perfusion and ECMO. Delegates have attended from the UK, Norway, Russia, Germany, Spain, Brazil, Ukraine, Singapore and India. The course has evaluated exceptionally well and has been held annually, interrupted only by the COVID19 pandemic. In 2022 the course was accepted into the **European Association for Cardiothoracic Surgery Academy** portfolio of courses. The course has received local television and newspaper coverage.

SOCIETY MEMBERSHIPS

Society of Cardiothoracic Surgeons of Great Britain and Ireland

The International Society for Heart and Lung Transplantation

European Association for Cardiothoracic Surgery

Society of Thoracic Surgeons International Member

Association of Aviation Medical Examiners

Royal Aeronautical Society

North of England Medico-Legal Society

International Society for Minimally Invasive Cardiothoracic Surgery

European Society for Organ Transplantation

European Cardiothoracic Transplant Association

Sri Lanka Society for Heart and Lung Transplantation

Faculty of Surgical Trainers Royal College of Surgeons of Edinburgh

American Heart Association

American College of Surgeons

Indian Society for Heart and Lung Transplantation

European Society of Cardiology (Working Group on Cardiovascular Surgery)

World Society of Cardio-Vascular & Thoracic Surgeons

Magistrates Association

Surgical Palliative Care Society

Association for Acute Cardiovascular Care

Medicolegal Society

EDUCATION & TRAINING ROLES 2

Faculty member – Birmingham Review Course in Cardiothoracic Surgery – 2015 to date
Newcastle Thoracic Robotic Surgery Course – 2016 to date
Pre-hospital and Emergency Room Thoracotomy (PERT) Course :
Royal College of Surgeons of England – June 2016 to date
Bypass, Balloon Pumps and Assist Devices Course :
Royal College of Surgeons of England 2006 to 201
Cardiac Surgical Emergencies Training Day – 2010 to date, Freeman Hospital

Faculty Member - European Cardiothoracic Transplant Association meeting (European Society of Organ Transplantation) in Barcelona in October 2016

Member of the International Society for Heart and Lung Transplantation **Heart Failure and Transplantation Council Education Workforce** for 2017 and 2018

External Assessor for Health Education England – Review - Yorkshire Cardiothoracic Training Programme 2018

In December 2020 I obtained a **Certificate in Coaching and Mentoring** (Level 3 EMBA and ASIC accredited qualification) from **Cambridge Management and Leadership School, Cambridge**

In May 2021 I gained a **Leaders of Learning Certificate** from **Harvard University, USA**.

In July 2021 I gained a **Setting Expectations and Assessing Performance Issues Certificate** from the **University of California, Davis, USA**

In October 2021 I was selectively admitted as a **Member of the Academy of Master Surgeon Educators** by the **American College of Surgeons**

In January 2022 I completed a **Certificate in Training and Learning Online** with the **University of Leeds**.

In February 2022 I completed a **Certificate in Instructional Methods in Health Profession Education** with the **University of Michigan, USA**

In January 2023 I became an **Associate Member of the Academy of Medical Educators**

In February 2023 I was awarded with my co-authors a **Highly Commended** citation in the **Excellence in Education** category of the **NHS Blood and Transplant and British Transplantation Society UK Awards for Excellence in Organ and Tissue Donation and Transplantation** for our work developing a state of the art digital resource for patients being assessed for heart and lung transplantation developed in partnership with colleagues from the Media Production Faculty at the University of Northumbria and funded by a £90,000 grant from Newcastle Hospitals Charity. In March 2023 this work was awarded the **Best Heart and Lung Transplant Team Award** by the **Society for Cardiothoracic Surgery in Great Britain and Ireland**.

In 2023 I was selected competitively for the **European Society of Organ Transplantation (ESOT) Mentorship Program** as one of 6 international mentors. I was assigned to guide a young surgeon training in hepatobiliary transplantation from Lithuania. The ESOT Mentorship Programme aims to provide transplant professionals with the opportunity for close interaction and expert guidance at a key stage of their career. The program is conducted by the ESOT Education Committee in collaboration with the Young Professionals in Transplantation Committee with the aim of empowering emerging transplant professionals and nurturing future leaders in transplantation. I am a **Faculty member** for the **ESOT HESPIRIS Foundation Course**.

In 2024 I was invited to join the **EACTS Core Curriculum Taskforce for Cardiac Surgeons** to harmonise the standard of cardiac surgery training with the development of a curriculum and outline the core competencies required of resident surgeons and training delivery, which can be voluntarily adopted by any European country. This will form the framework for a “European Training Requirements” (ETR) as outlined by the European Commission.

RESEARCH & ACADEMIC 1

INNOVATION

Mechanical Proximal anastomosis devices
2005 – largest personal experience
in the UK with these devices.

TAVI – joint lead cardiothoracic surgeon
2009 to 2017

VAD – joint lead cardiothoracic surgeon
2005
First surgeon in the UK to implant
the Micromed Debakey VAD.

Minimally invasive AF surgery – joint lead
cardiothoracic surgeon since 2009
First surgeon in the UK to perform bilateral
thoroscopically assisted Bauer MAZE
operation.

Ex Vivo Lung Perfusion - member of the
research group since 2009

Lung transplantation from
non heart beating lung donors
First surgeon to implant lungs from a
DCD donor in the UK - 2012.

First case of minimally invasive mitral valve
repair in Newcastle - 2013.

Part of the surgical team to perform the
first ever robotically assisted
thoracic surgery in the UK.
I was the operating surgeon for
the first two cases ever performed in 2014.

Sutureless aortic valve replacement - 2015.
I am an International Proctor for
the Livanova (Sorin) Perceval
sutureless aortic valve prosthesis
and Scientific Director of the
UK Perceval Users Group.

Transmedics Organ Care System – 2016. I
obtained a £250,000 grant to establish a
Transmedics program at Freeman Hospital
to evaluate this technology for
high risk cardiac transplantation cases.
I am a fully certified operator of the OCS
system.

Carcinoid heart disease service –
performed 4 of the 7 quadruple valve
replacements for this condition
reported in the World literature.

First surgeon to undertake mitral valve
repair with the Chord X artificial
chordae system in Newcastle.

First surgeon to undertake an
Edwards Intuity Elite sutureless
aortic valve replacement in Newcastle.

First surgeon to undertake a heart transplant
in the United Kingdom using the Xvivo
Heartbox donor heart preservation system

PLEASE SEE ATTACHED PUBLICATIONS & PRESENTATIONS LIST

In 2014 I was appointed as **Professor of Cardiothoracic Surgery and Cardiopulmonary Transplantation** in **Department of Applied Science** of the **Faculty of Health and Life Sciences** at the **University of Northumbria** in Newcastle.

In September 2019 I was appointed **Visiting Professor of Surgery** in the **Faculty of Medicine and Health Sciences, University College Sedaya International Medical School, Kuala Lumpur, Malaysia**

I am an **Associate Clinical Lecturer** affiliated with the **Institute of Cellular Medicine** at the **University of Newcastle** since 2000 to date. Prior to my Consultant appointment I was First Assistant in Cardiothoracic Surgery with the Department of Surgery, University of Newcastle establishing many academic connections and affiliations during that time.

In 2001 I received a '**Pump Priming**' Award from the **Royal College of Surgeons of England** to undertake research on reperfusion injury after lung transplantation.

Research

I was the local lead for the **Evaluation of Ventricular Assist Devices (EVAD) Study** in 2006/7.

I am the local **Principle Investigator** for the following national multi-centre NHS portfolio studies :

- **Arterial Revascularisation Study (ART).**
- **Transfusion Indication Threshold Reduction Study (TITRE2).**
- **A Randomised controlled trial to investigate the clinical and cost-effectiveness of adding an ablation device-based MAZE procedure as a routine adjunct to elective cardiac surgery for patients with pre-existing atrial fibrillation (AF) (AMAZE Trial).**
- **Evaluation of Xience Prime vs Coronary Artery Bypass Surgery for Effectiveness of Left Main Revascularisation (EXCEL Study).**
- **Evaluation of Safety and Efficacy of the Basal Annuloplasty of the Cardiac Externally Device in the Treatment of Functional Mitral Regurgitation (BACE Study)**
- **Sorin Universal Registry on Aortic Valve Replacement (SURE) Study**
- **Perceval Sutureless Implant versus Standard Aortic Valve Replacement (PERSIST) Trial**
- I am a co-investigator in the **Ex-Vivo Lung Perfusion (EVLP) Study** and the **Lost Lung Study**, the latter having recently been funded by a grant from NHSBT/MRC.
- **Mitral Trans-Apical Neochordal Echo Guided Repair (TRACER) Trial** of the Harpoon neochord delivery device for mitral regurgitation.
- **Collaborator for the UK-REBOA Trial (Resuscitative Endovascular Balloon Occlusion of the Aorta for Trauma)**
- **Quality of Life after Cardiac Surgery Study (QUACS)**
- **Tight K Study** - Prevention of dysrhythmias on the cardiac intensive care unit - does maintenance of high-normal serum potassium levels matter?
- **Efficacy of physical activity tele-coaching to optimise daily physical activity levels in lung transplant recipients**
- **Non-ischemic preservation of donor heart in heart transplantation – a randomized, controlled, multicentre trial**

MEDICOLEGAL WORK



Extensive experience in medical expert work including Coronial reviews and testimony.

Clinical negligence work undertaken for both Claimants and Defendants with experience of report writing, conferences with Counsel and court appearances.

Diploma in Legal Medicine from the Royal College of Physicians of Edinburgh 2021

Author of the chapter on Cardiothoracic Surgery in Clinical Negligence (Ed Powers, Bloomsbury) 2023

Full Member of the MedicoLegal Society, London

RESEARCH & ACADEMIC 2

In 2003/4, I was selected to be a reviewer of abstract submissions for the **Annual Meeting of the Society for Cardiothoracic Surgery of Great Britain and Ireland** and have continued in this role each year to date. From 2005 I was appointed as the **Lead Reviewer in Transplantation on the Program Committee** for this meeting, a post I held until 2017 leading a team of five reviewers of submitted abstracts in cardiac surgery and in transplantation and participating in annual Program Committee meetings at the Royal College of Surgeons of England.

In 2007, 2010, 2014, 2017-2023 I was chosen as an **abstract reviewer for the International Society of Heart and Lung Transplantation (ISHLT)**.

I was chosen to serve on the **Program Committee** for the 2012 annual meeting of **ISHLT** to be held in Prague, the subsequent meeting in 2013 in Montreal, the 2016 meeting in Washington and in 2018.

In 2017 I was appointed as **Liaison for the Ethics, Economics and Policy subgroup** on the **Abstract Selection Committee** for the 2018 meeting in Nice.

I was selected as a reviewer of submitted abstracts for the 2011, 2013, 2015, 2017, 2019 and 2021 **European Society of Organ Transplantation** annual meetings.

In 2013, I was the organizer of the **Society for Cardiothoracic Surgery in Great Britain and Ireland University** course on **Heart Failure Surgery – From Cell to Device**. This day long meeting included an eminent International Faculty and preceded the main Annual Meeting of the Society.

I was selected as a reviewer of submitted abstracts each year from 2014 to 2023 for the **European Association of Cardiothoracic Surgery** annual meetings.

Reviewer of abstracts for the 2022 **European Society for Cardiology** annual meeting.

I was selected as a reviewer of submitted abstracts for the 2015 **European Society for Organ Transplantation** annual meeting held in Brussels.

I am a member of the **International Valvular Surgery Study Group (IVSSG)** which is a steering group of 17 academic surgeons from eight countries with expertise in sutureless aortic valve replacement surgery. The group is responsible for monitoring of an international registry, data quality and control and interpretation of the information. The group addresses scientific priorities, analysis and quality.

Member of the **Program Committee for the International Society for Minimally Invasive Cardiothoracic Surgery – 2015-2017**

Abstract reviewer for submissions to the **British Transplantation Society** for the Annual Meeting held in Glasgow in 2016

Reviewer of scientific grant applications for the **Swiss National Science Foundation** in 2016/17.

I was appointed as an assessor for applications for the **Joint American College of Surgeons/Royal College of Surgeons Research Fellowship** in 2002 by the Royal College of Surgeons of England.

I am an assessor of research awards for the **Scottish Hospital Endowments Research Trust**.

Assessor of applications for the **Research Fellowship Scheme 2006-2008, 2014 – 2015, 2016-2017, 2017-2018, 2019 and 2021 for the Royal College of Surgeons of England**.

RESEARCH & ACADEMIC 3

Assessor of applications for **Hunterian Professorships 2007** for the Royal College of Surgeons of England.

Reviewer of Basic Science Grant applications for **Heart Research UK 2008, 2013 and 2016**.

I am a reviewer of original research papers for the following peer reviewed journals:

The Annals of Thoracic Surgery
The Journal of Heart and Lung Transplantation
Laboratory Animals
Expert Opinion in Pharmacotherapy
Journal of Cardiothoracic Surgery
Medical and Biological Engineering and Computing
Pulmonary Pharmacology and Therapeutics
European Journal of Cardiothoracic Surgery
Interactive Journal of Cardiovascular and Thoracic Surgery
Diabetes and Vascular Disease Research
International Journal of Artificial Organs
European Journal of Cardiothoracic Surgery
The Surgeon – The Journal of the Royal College of Surgeons of Edinburgh
Journal of Cardiovascular Surgery
Risk Management and Healthcare Policy
Transfusion Medicine
Journal of Anaesthesia and Surgery
Transplantation
British Medical Journal
Annals of Case Reports
Journal of Cardiothoracic Surgery
Annals of the Royal College of Surgeons of England
PLOS ONE
International Journal of Case Reports and Images
Journal of Cardiovascular Development and Disease
Journal of Cardiac Surgery
Journal of Medical Artificial Intelligence
Cureus Journal of Medical Science

Book reviewer for the **British Medical Journal Medical Book Competition 1998 - 2020**. I acted as a chairman for the 1999 British Medical Association medical video competition.

Contributor to **Deciding Right** (guidance and app) developed by the **North England Strategic Clinical Network and St. Oswald's Hospice**. This work was supported by NHS England and an NHS Innovations Award. I was involved in developing the end of life guidance for patients being treated with medical devices such as AICDs and VADs.

Appointed as a **Review Editor** for the Nature journal **Frontiers in Heart Surgery** in 2015 to date

Appointed by election by the members to the **Society for Cardiothoracic Surgeons of Great Britain and Ireland** and sit as a member of its **Academic and Research Committee**.

Awarded the **Dundas Medal** by the **Royal College of Surgeons of Edinburgh** with Dr M. McKenna for our work establishing a Palliative Care service within the Heart and Lung Transplant Program at Freeman Hospital, Newcastle in August 2018.

Judge for the **Health Service Journal Value Awards 2019 - Surgical Services Initiative of the Year**

In 2021 I was appointed to the **Editorial Board** of the **Journal of Cardiothoracic Surgery** and also the **Journal of Cardiovascular Development and Disease** and in 2023 to the journal, **Cardiovascular Science**

RESEARCH & ACADEMIC 4

In January 2022 I completed a 37 week course leading to the award of a **Professional Certificate in Data Analytics** from Google. This involved the completion of courses in sharing data through the art of visualization, data analysis with R programming, processing data, data foundations, analyzing data to answer questions, preparation of data for exploration and making data-driven decisions.

In November 2023 I was appointed to the **Editorial Board** of the journal **Cardiovascular Science**.

PROFESSIONAL EXAMINATIONS

In 2002 I was elected to serve on the **Court of Examiners** for the MRCS examinations with **The Royal College of Surgeons of England**.

I retired from the Court in October 2010 after serving the maximum term and was nominated to become an **Assessing Examiner with the Intercollegiate Committee for Basic Surgical Examinations (ICBSE)** – a post I began in March 2011 to maintain the highest standards during Intercollegiate MRCS examinations by evaluating both the examination and examiners. I completed my term in 2014.

From 2003 to 2005 I was a member of the **Panel of Examiners** for the Intercollegiate MRCS examination (Basic Sciences) with **The Royal College of Surgeons of Edinburgh**.

I was an examiner for MB BS Stage 2 assignments for the Faculty of Medical Sciences, University of Newcastle from 2004 onwards.

I have acted as an Examiner for final MB,BS examinations, University of Newcastle from 2009 to date.

Examiner – PhD Thesis entitled **Identification of Heart Donors using Biochemical Markers** (V. Dronavalli) for the **University of Birmingham** in May 2015.

Member of the Board for the European Cardiothoracic Surgery Examination – 2016 to date. In this role as an examiner I was the Chairman and Lead for the Fellowship (Part 2) of the Board of Cardiothoracic Surgery Examination and write, select and administer questions for the examination.

I wrote the new entry requirements for the EBCTS examination and contributed to the writing of the European curriculum document with special responsibility for the End Stage Heart and Lung Disease section.

In 2019 I was appointed as **Chairman of the Board** after a competitive selection process.

Examiner – PhD Thesis entitled **A Randomised Study comparing Vein Integrity and Clinical Outcomes (VICO) in Open Vein Harvesting and Two types of Endoscopic Vein Harvesting for Coronary Artery Bypass Grafting** (B. Krishnamoorthy) for the **University of Manchester** in February 2017.

Examiner – PhD Thesis entitled **Understanding Reperfusion and the Donor and Recipient Immune Response In Lung Transplantation** (A. Ball) for the **University of Manchester** in July 2018.

LEGAL WORK & CLINICAL NEGLIGENCE

I have over 20 years of experience in medical expert work including Coronial reviews and testimony in Court.

I undertake clinical negligence work for both Claimants and Defendants (approximately a 50:50 split) with experience of complex case analysis, report writing, conferences with Counsel and court appearances. I am able to provide reports on causation and prognosis. I complete approximately 25 reports annually.

Alongside clinical negligence work I also review cases of personal injury affecting the chest wall, heart, great vessels and lungs. For personal injury I provide reports exclusively for claimants.

I hold the **Diploma in Legal Medicine** from the Royal College of Physicians of Edinburgh (2021)

I am the author of the chapter on **Cardiothoracic Surgery in Clinical Negligence** (Ed Powers, Bloomsbury) 2023.

I am a full Member of the MedicoLegal Society, London

In October 2024 I was appointed as a **Justice of the Peace** for England and Wales by The Lord Chief Justice, The Right Honourable the Lord Burnett of Maldon, on behalf and in the name of His Majesty King Charles the Third, pursuant to section 10 of the Courts Act 2003. I serve as a **Magistrate** in the **Criminal Court** in the **North Northumbria Local Justice Area**.