

Job Description
NIHR Academic Clinical Fellow in Response Mode:
General Surgery, Cardio-thoracic Surgery and Vascular Surgery
University of Bristol

1. Job title & entry level(s):

Academic Clinical Fellow

General Surgery: ST1, ST2, ST3

Cardio-thoracic Surgery: ST1, ST2, ST3

Vascular Surgery: ST1, ST2, ST3

2. Duration of post:

3 years (FTE)

Candidates working Less Than Full Time (LTFT) or would like should notify the relevant Local Office at point of offer of your intention to work LTFT and this will be considered against the national eligibility criteria.

3. Hospitals in which training will take place:

This training post is based in Severn Region. Rotations have not been confirmed at this stage. Should you wish to explore this in more detail, please get in touch with the Training Programme Director.

4. Research institutions in which training will take place:

University of Bristol - <https://www.bristol.ac.uk/medical-school/study/clinical/>

5. Timetabling of clinical and research time:

75% clinical 25% research in a flexible way during the working week or months in accordance with pre-agreed arrangements between the clinical and academic supervisors.

6. Description of research component of programme

General Surgery

The General Surgery Academic Clinical Fellowship (ACF) offers an outstanding opportunity to work within a diverse team of world-leading academic surgeons and methodologists whose work aims to transform patient care by increasing evidence-based surgery and inspiring and training a new generation of research active surgeons. Specific expertise includes optimising the design and conduct of surgical trials, the development and evaluation of surgical and perioperative care complex interventions and surgical innovation. Specific collaborations include the Surgical & Orthopaedic Innovation theme of the Bristol NIHR Biomedical Research Centre, the Royal College of Surgeons of England Surgical Trials Centre, the Bristol Trials Centre (BTC), the Bristol Surgical and Perioperative Care Complex Intervention Collaboration (BriSPOCC), the Breast Cancer Evidence, Advancement and Optimisation Network (BEACON) with Queen's University Belfast, and University of the West of England. The post holder will be based in Bristol Medical School within the Faculty of Health Sciences.

This post is for general surgical trainees with any subspeciality interest (e.g. upper or lower GI, oncoplastic breast surgery or emergency general surgery). The ACF will have the opportunity to gain expertise and experience in quantitative and qualitative research methodologies and will be encouraged to work towards the development of an externally funded doctoral fellowship application with appropriate clinical and methodological support. Senior clinical academics include Professor Natalie Blencowe (upper GI and emergency general surgery), Professor Angus McNair (colorectal surgery) and Professor Shelley Potter (oncoplastic breast and reconstructive surgery and surgical oncology). Projects will be agreed by mutual agreement with an appropriate supervisor based on clinical and research interests.

Cardiothoracic Surgery

The Cardiothoracic Academic Clinical Fellowship (ACF) provides a structured environment in which trainees can develop their academic careers and progress towards externally funded doctoral research training (PhD). This will be achieved through early exposure to advanced analytical methodologies, including the application of machine-learning techniques to large-scale clinical datasets.

The Bristol Heart Institute maintains extensive, prospectively collected clinical and genetic databases, most notably the Outcome Monitoring After Cardiac Surgery (OMACS) programme. OMACS facilitates the routine collection of trial-quality data on in-hospital complications and long-term outcomes for all consenting adult and paediatric cardiac surgery patients. In parallel, biological samples including blood, urine, pericardial fluid, and cardiac tissue are collected systematically at the time of surgery, providing a unique resource for translational and clinical research.

The Bristol Heart Institute is also a key partner in the NIHR Health Informatics Collaborative (HIC), a national partnership of NHS Trusts and affiliated universities established to facilitate the secure sharing of high-quality clinical data for research. Within the HIC infrastructure, comprehensive baseline clinical information is derived from both surgical datasets, principally the National Adult Cardiac Surgery Audit (NACSA), and complementary non-surgical sources, including biomarker repositories and pathology databases.

A major focus of the research programme will be the development and validation of machine-learning algorithms using the NACSA dataset, which contains clinical information on approximately one million major cardiac surgical procedures performed within the NHS and is linked to national mortality records, enabling robust long-term outcome analyses. NACSA forms part of the National Clinical Audit and Patient Outcomes Programme, commissioned by the Healthcare Quality Improvement Partnership (HQIP), funded by NHS England, and coordinated by the National Institute for Cardiovascular Outcomes Research (NICOR).

Machine-learning approaches have considerable potential to transform the assessment and improvement of outcomes following cardiac surgery. More accurate prediction of postoperative risk can enhance shared decision-making, support targeted quality-improvement initiatives, optimise resource allocation, and strengthen accountable healthcare systems through more precise population-level risk stratification.

The ACF provides an outstanding platform for developing expertise in clinical data science and undertaking high-impact research in risk prediction and outcome modelling in cardiac surgery. Academic supervision will be provided by Professors G. D. Angelini and Massimo Caputo, who will support the Fellow's academic development, oversee project delivery, and provide mentorship to facilitate progression to a competitive doctoral research fellowship

Vascular Surgery

This ACF offers an exciting opportunity to work and be trained within the Department of Vascular Surgery within a collaborative research team of academic surgeons and anaesthetists & peri-operative care physicians. This programme will prepare the candidate with the necessary academic surgical experience to apply for research council and NIHR fellowships and grants. It will provide the necessary experience and training opportunities for the individual to gain competencies required to pursue an academic career in surgery. There is multi-disciplinary support for career development and the Department has an established track record of successfully achieving high quality grant funding and fellowships for surgeons of all specialties.

The research opportunities focus upon developing improved evaluation of surgical and peri operative care interventions. The candidate will have opportunities to specifically develop systematic review and meta-analysis skills, data analysis and interpretation (qualitative and quantitative according to needs), critical appraisal of the literature and writing skills, outcome research methods and methodology of randomized controlled trials in surgery. These skills will be taught, practiced and applied to new surgical trials and pilot studies and there are apprenticeship opportunities to be involved in the design and conduct of on-going, pilot studies and full RCTs in surgery and peri-operative care.

The educational opportunities will include the development of supervisory and teaching skills working with special study components undergraduate students and post graduate training in healthcare evaluation methodology.

7. Description of clinical training component of programme

General surgical training

General surgical training in the Severn region, delivered through the NHS England South West School of Surgery, provides a structured pathway from Core Surgical Training (CST) to Higher Specialty Training (ST3–ST8). Core trainees rotate through a range of surgical specialties, developing fundamental operative, clinical and professional skills while gaining experience in emergency and elective surgery. Progression to specialty training offers comprehensive exposure to upper gastrointestinal, colorectal, breast, endocrine, hepatopancreatobiliary and emergency general surgery across major teaching hospitals and district general hospitals in the region. Training is supported by high-quality regional teaching, simulation, skills courses and multidisciplinary learning, alongside regular workplace-based assessments and curriculum progression through the Intercollegiate Surgical Curriculum Programme (ISCP). Trainees benefit from strong academic links with the University of Bristol, opportunities to undertake research and quality improvement projects, and supportive educational supervision. The programme aims to produce skilled, compassionate and independent general surgeons equipped to deliver high-quality patient care and assume future consultant leadership roles.

Cardiothoracic Surgery Training

Cardiothoracic surgical training within the Severn region is recognised nationally for its excellence and consistently attracts high-calibre applicants, achieving full recruitment across training programmes. The Academic Clinical Fellowship (ACF) is based at the Bristol Heart Institute, one of the UK's leading tertiary cardiothoracic centres, providing exposure to a broad spectrum of adult cardiac, congenital cardiac, and thoracic surgery. Trainees rotate through each of these subspecialties before selecting their preferred area of higher subspecialisation, ensuring the acquisition of comprehensive clinical experience and a strong foundation in all aspects of cardiothoracic surgery.

The clinical training programme is closely integrated with the academic component and is specifically designed to enable trainees to develop as clinician-scientists without compromising their surgical progression. ACFs maintain the Bristol Heart Institute as their principal training base throughout the programme, allowing continuity of research activity, sustained supervision, and seamless integration between clinical and academic commitments. This structure facilitates regular interaction with academic supervisors, participation in multidisciplinary research meetings, journal clubs, grant-development workshops, and collaborative research projects, while ensuring continuity of mentorship and peer support.

Clinical training is delivered within a high-volume tertiary referral centre managing the full spectrum of complex cardiothoracic disease. Trainees gain experience in advanced operative techniques, perioperative decision-making, multidisciplinary team working, and the management of complex adult cardiac, congenital, and thoracic surgical patients. The breadth and complexity of the clinical workload provide exceptional opportunities to develop operative competence alongside the critical appraisal and analytical skills required of future academic surgeons. The Bristol Heart Institute has a long-established culture of academic excellence and currently supports two Academic Clinical Lecturers, an Academic Clinical Fellow, two clinical PhD fellows, and three MD research fellows, creating a vibrant, collaborative, and intellectually stimulating academic environment. Academic trainees benefit from close interaction with established clinical academics, statisticians, data scientists, and translational researchers, promoting interdisciplinary collaboration and providing exposure to the full spectrum of clinical and laboratory-based research.

Trainees within the Severn Deanery consistently perform to a high standard in national professional examinations and achieve excellent clinical outcomes, reflecting the quality of both the educational programme and the clinical training environment. Importantly, the programme has an established track record of developing successful academic surgeons. Three recent Academic Clinical Fellows have progressed to Academic Clinical Lecturer appointments and, following completion of higher surgical training, have subsequently secured Senior Lecturer–Consultant positions. This demonstrates a clear, well-supported, and successful pathway from Academic Clinical Fellowship through doctoral research and higher academic training to independent clinical academic leadership.

Throughout the programme, trainees receive structured educational supervision, regular appraisal, and personalised career guidance to ensure they achieve the competencies required for both completion of surgical training and progression towards independent academic careers. The integrated clinical and academic training model provides an outstanding platform for developing the next generation of academic cardiothoracic surgeons capable of delivering excellence in patient care, research, innovation, and medical education.

Vascular Surgery Training

Years of core training CT1-2 and/or specialty training ST3 level in consultation with the training programme directors within the Severn PGME. Assigned educational and clinical supervision will be provided by the acute hospital trust for each clinical placement.

Rotation Information (CT1-2)

The Severn Region Core Surgical Training Programme is a two-year core training programme in Core Surgical Training that will allow the successful applicant to demonstrate completion of Core Training, subject to satisfactory progression.

Severn is a large region with a defined geographic location from Gloucester/Cheltenham in the north through to Taunton in the south. The Severn programme has been highly rated (in the top 2 from trainee feedback in the GMC survey over

the last 4 years) and has a long-established educational program running alongside high-quality placements. There is a strong educational component to the programme with provision of human factor, clinical skill, core knowledge and simulation training. The deanery established an introductory bootcamp early and has seen its model replicated across the UK. A high number of CT's in this region achieve their preferred ST3 rotation at the first sitting. Standard eligibility criteria for CST apply and can be accessed through the JCST website.

Core trainees in the Severn region are placed in Bath, Swindon, Bristol (both North Bristol and University Hospitals Bristol) hospitals, Taunton and Cheltenham/Gloucester. General surgery as well as cardiothoracic, plastic, paediatric and neurosurgical themed rotations are provided with scope for a vascular themed ACF rotation. This, following discussion, could be located in North Bristol and Taunton/Cheltenham and would include no less than 12 months in each geographical location. A number of different rotations are available with 6 months of vascular surgical exposure (depending on prior experience) to ensure entry criteria for ST3 applications.

Rotation Information (ST3 +)

The Vascular Surgery rotation covers both South West Peninsula and Severn PGME. The regional training scheme in Vascular Surgery is based at 6 training centres. The trainees rotate through different training hospitals on an annual basis starting on the first Wednesday in April or October. The trainee will perform 12 months of training in elective and emergency general surgery during their first two (of a total of six) years of Vascular Surgery training.

Training Hospitals:

- Derriford Hospital, Plymouth Hospitals NHS Trust
- Royal Devon and Exeter Hospital, Royal Devon and Exeter NHS Foundation Trust
- Treliske Hospital, Royal Cornwall Hospitals NHS Trust
- Musgrove Park Hospital, Taunton and Somerset NHS Trust
- Cheltenham General Hospital, Gloucestershire Hospitals NHS Foundation Trust
- Southmead Hospital, Bristol Foundation Trust

Further information on Vascular Surgery training is available from the ISCP website.

8. Academic Supervisor / Academic Programme Director:

Integrated Academic Training Lead(s):

- Professor Shelley Potter (shelley.potter@bristol.ac.uk)
- Dr Helen Winter (helen.winter@uhbw.nhs.uk)

Academic Lead:

- General Surgery: Professor Shelley Potter (shelley.potter@bristol.ac.uk)
- Cardio-thoracic Surgery: Professor Gianni Angelini (G.D.Angelini@bristol.ac.uk)
- Vascular Sugery: Professor Robert Hinchliffe (robert.hinchliffe@bristol.ac.uk)

9. Clinical Training Programme Director:

- General Surgery:
 - Core: Miss Philippa Orchard (Philippa.Orchard@nbt.nhs.uk)
 - Higher: Mr Jonathan Randall (Jonathan.Randall@uhbw.nhs.uk)
- Cardio-thoracic Surgery (+ locally funded):
 - Dr Shafi Mussa (Shafi.Mussa@uhbw.nhs.uk)

- Vascular Sugery:
 - Core: Miss Philippa Orchard (Philippa.Orchard@nbt.nhs.uk)
 - Higher: Mr Tim Beckitt (Tim.Beckitt@nbt.nhs.uk)

10. Deanery contact for further information:

Recruitment Hotline: 01454 252 610

Recruitment Inbox: England.acfreruitment.sw@nhs.net

11. Useful websites for further information:

NIHR Integrated Academic Training Website: <http://www.nihr.ac.uk/IAT>

BMA Junior Doctor Pay Scales (link to latest pay Circular): <https://www.bma.org.uk/pay-and-contracts/pay/junior-doctors-pay-scales/pay-scales-for-junior-doctors-in-england>

University Clinical Academic Training website: <https://www.bristol.ac.uk/medical-school/study/clinical/>

This job description was prepared in July 2026

