Job Description

NIHR Academic Clinical Fellowship

Anaesthesia ST1&ST2

The University of Sheffield, in partnership with NHS England North East and Yorkshire, the Sheffield Teaching Hospitals NHS Trust, is pleased to advertise for an exciting opportunity for academic clinical training in Anaesthesia.

Applications are now invited for an Academic Clinical Fellowship in Anaesthesia at ST1 & ST2. The new post has been created as part of the NHS England (NHSE)/National Institute for Health Research (NIHR) programme of Integrated Academic Training. It offers candidates a comprehensive experience of clinical academic medicine working alongside internationally renowned clinicians and researchers.

We are seeking highly motivated, enthusiastic individuals with the potential to excel in both their clinical and academic training and who have the ambition to be part of the next generation of academic clinicians.

The expectation is to use the Academic Clinical Fellowship to develop the candidate's academic skills and prepare for higher degree applications and progression through Integrated Academic Training.

This Academic Clinical Fellowship programme in Anaesthesia will be run by the University of Sheffield, Sheffield Teaching Hospitals NHS Trust, and NHS England Health North East and Yorkshire.

Academic Clinical Fellowships are three-year fixed-term national training posts. They attract a National Training Number and residents undertake 75% clinical and 25% academic training over the term of the post. They are employed by the NHS Trust and have an honorary contract with the University of Sheffield.

ACF residents also undertake a Research Training Programme provided by the University for which funding is provided by NIHR. They are also eligible for a £1,000 bursary per year to support research training activity (e.g. to attend academic conferences).

Academic Clinical Fellowship residents would also normally complete and submit an external funding application for a research fellowship to enable them to complete a higher degree (PhD or research MD) following the completion of their ACF fixed-term post, which would be completed as Out-of-Programme-Research (OOPR) within higher specialty training.

All Academic Clinical Fellowships are run-through posts, regardless of specialty, apart from 'Medical Education' ACFs. A resident entering ACF at ST1 in a specialty with a Core

Training period would therefore be guaranteed continued training to CCT in the eventual specialty, provided they progress satisfactorily through both their academic and clinical training. Run-through status is withdrawn if ACFs do not complete the academic component.

POST DETAILS

Job Title

NIHR Academic Clinical Fellow (ACF) – Anaesthesia

Duration of the Post

Up to 3 years (25% academic, 75% clinical).

Lead NHS Hospital/Trust in which training will take place

Sheffield Teaching Hospitals NHS Trust.

Research institution in which training will take place

School of Medicine and Population Health

The School of Medicine and Population Health (SMPH) at the University of Sheffield is a leading institution that integrates medical education, research, and clinical practice with a strong emphasis on population health. It aims to train the next generation of healthcare professionals and contribute to improved health outcomes through innovative research and collaboration.

As a host for an academic clinical fellowship, fellows benefit from access to state-of-the-art facilities, mentorship from experienced faculty, and opportunities to engage in multidisciplinary research projects. The school focuses on addressing real-world health challenges, making it an ideal setting for fellows who seek to translate academic insights into practical solutions that enhance public health.

Overall, SMPH is committed to fostering a culture of excellence in health research, preparing fellows to become leaders in their respective fields while contributing to the advancement of population health.

Anaesthesia and perioperative medicine research

We are a growing academic department benefiting from several key figures in academic anaesthesia - notably Dr Wiles and Professor Mills. Within the department, we have successfully supervised PhD and BMedSci projects, as well as hosting previous Academic Clinical Fellows and Specialised Foundation Programme residents. We currently have a particular strength in academic publishing, as both an editor and the editor-in-chief of *Anaesthesia* work in the department.

Perioperative research is rapidly developing, with growing recognition of its importance due to the large quantity of care delivered across the UK. Due to this high throughput, small impacts can make large population-level differences while directly benefiting individual patients.

Within the department, clinical academic training can be provided at all levels of medical career progression:

- Medical student SSC modules alongside established projects
- One-year intercalated BMedSci degrees
- 4-month specialised foundation year 2 attachments
- Three-year academic clinical fellow posts
- Full-time MD/PhD research fellowships
- Four-year clinical lecturer posts

Research Protected Time:

The post will be split so that 9 months (25%) are spent undertaking research-related activities and 27 months (75%) in clinical activities. The post allows for flexibility in how the 9 months of research time is taken and will be negotiated with the candidate, the trust, and the deanery while considering the nature of the project.

Academic Clinical Fellowship Training Programme: Research Component

The research component of the Academic Clinical Fellowship is aligned with three priority themes of the University of Sheffield NIHR Integrated Academic Training programme: Acute Care, Multiple Long-Term Conditions (MLTCs), and Digital. Focused on a project investigating the impact of perioperative frailty and comorbidity on patient-centred outcomes after major surgery. Perioperative medicine sits naturally across these themes: the surgical episode is an acute-care event, an increasing proportion of surgical patients present with MLTCs, and the tools used to predict and modify their risk are increasingly digital.

The University of Sheffield and Sheffield Teaching Hospitals have a track record of high-impact perioperative research aligned with these themes. Sheffield contributes to national studies through the NIHR-funded Perioperative Quality Improvement Programme (PQIP) and has been active in work on frailty, multimorbidity, and postoperative outcomes. Our previous ACFs and department have contributed to:

- Development of predictive analytics for postoperative outcomes in patients with multimorbidity and frailty.
- Evaluations of perioperative rehabilitation for unfit surgical patients with MLTCs.
- Research methodology and data integrity within anaesthesia.

Successful applicants can draw on the strong research infrastructure that underpins the Sheffield IAT programme. For acute-care and trauma projects, the Centre for URgent and

Emergency care research (CURE) hosts the NIHR Yorkshire and Humber Applied Research Collaboration (ARC) urgent care theme and maintains CUREd+, a linked emergency-care and prehospital dataset, with access to the National Major Trauma Registry and regional links to Yorkshire Ambulance Service. This is directly relevant to trauma and emergency perioperative research. Decision-analytic modelling and evidence synthesis are available through the NIHR Sheffield evidence synthesis centre (EnSygN) and can be supported by health economists in SCHARR. For digital projects, fellows can access Data Connect (a Trusted Research Environment housing linked NHS datasets), the Centre for Machine Intelligence, the Insigneo Institute for in silico medicine, and opportunities to engage with the £4M South Yorkshire Digital Health Hub, aligning perioperative work with the national goals of analogue to digital and hospital to home. For MLTC projects, the Healthy Lifespan Institute (HELSI), consisting of over 180 researchers across 30 departments, supports frailty and ageing research in a region where socioeconomic deprivation is high, driving early-onset multimorbidity in the surgical population.

The Academic Anaesthesia department at STH benefits from a faculty varied in expertise and dedicated research time to support a variety of projects to suit the interests of the candidate. Potential projects include:

- Prediction of patient-centred outcomes in perioperative MLTCs.
- Using electronic health records and machine learning to identify high-risk surgical patients with multimorbidity, linked within a Trusted Research Environment.
- Optimising postoperative pathways in frail adults.
- Mixed-methods study evaluating perioperative care bundles for frailty.
- AI-supported shared decision-making.
- Development of digital tools to support perioperative risk communication.
- Acute-care and trauma perioperative outcomes research using the CUREd+ dataset and the National Major Trauma Registry.
- Mixed-methods research into health inequalities in obstetric anaesthesia, using the NIHR Challenge Maternity Disparities Consortium.

The department now holds a collaborative Sheffield–York database amalgamating cardiopulmonary exercise testing data, patient demographics, surgical details, and patient-centred perioperative outcomes in major surgery. We believe this to be among the first of its kind in the UK, and it offers a unique opportunity to combine retrospective and prospective analyses of short- and long-term outcomes across operated and non-operated populations. There is potential to collaborate with the Healthy Lifespan Institute (HELSI) to investigate interventions that improve quality of life in this population. Bridging the MLTC and Digital themes, a project of this nature will enable the ACF to progress to advanced learning opportunities in big-data analysis.

Given the nature of anaesthesia, we work collaboratively throughout the hospital, creating opportunities for academic collaboration. Our expertise within the department provides

distinctive opportunities for cross-specialty projects in trauma, emergency medicine, surgical specialties, and obstetrics.

Research time can be taken flexibly to meet the needs of the candidate, the project and the employing trust, but options include a concentrated 9-month full-time block or time staggered throughout the second and third year. Both provide the opportunity to undertake modules from the master's in clinical research, with the potential to undertake the full degree (subject to further funding). This provides training in quantitative and qualitative research design and analysis, with opportunities for more advanced training in statistics, economic evaluation, and qualitative research. The fellow will also undertake a research project aimed at achieving a peer-reviewed publication and conference presentation, with the potential to form the basis of a funded doctoral fellowship application.

We have successfully supported several ACFs with residents going on to pursue further academic achievements, and the school has an excellent track record of supporting doctoral fellowship applications.

Academic Clinical Fellowship Training Programme: Clinical Component

Anaesthesia and Operating Services comprises over 800 staff and 115 consultant anaesthetists who cover five hospitals in Sheffield: Royal Hallamshire, Northern General, Jessop's Wing Maternity Unit, and Weston Park Cancer Hospital. There are also well-established working relationships with The Sheffield Children's Hospital, with several shared faculty members. Anaesthetic training in the region benefits from the most geographically compact area in the UK, with easy access to urban and rural lifestyles. The **South Yorkshire Anaesthetic Training Programme** prides itself on its friendly and supportive network of educators and consistently performs well in the National Education Training Survey, making it a highly competitive rotation.

Anaesthesia and Operating Services provides emergency and elective care for the following specialties:

- Major general
- Upper gastrointestinal
- Hepato-pancreato-biliary
- Vascular
- Transplant
- Orthopaedics and trauma
- Major trauma and resuscitation
- Urology
- Gynaecology
- Plastics and burns
- Head and Neck/ENT/Maxillofacial
- Neurosurgery
- Cardiothoracic
- Obstetrics
- Paediatrics
- Acute and chronic pain

Candidates completing the Academic Clinical Fellowship, satisfying both the academic and clinical competencies for stage one Anaesthetic training (Stage 1 training | The Royal College of Anaesthetists) will be granted run-through training to ST4.

The programme is based in hospitals in South Yorkshire including:

- Sheffield Teaching Hospitals NHS Foundation Trust
- Sheffield Children's Hospital
- Barnsley Hospital NHS Foundation Trust
- Doncaster Royal Infirmary Hospital
- Rotherham NHS Foundation Trust

Please note that Academic Clinical Fellowships are run via core anaesthetic training pathways, not Acute Care Common Stem.

Residents will predominantly be working at Sheffield Teaching Hospitals, but delivery of the clinical components will require rotation through both district general hospital and teaching hospital environments.

Anaesthesia

The first year of training will be entirely clinical while the candidate obtains their initial assessment of competence and completes a rotation through critical care as per normal anaesthetic training. This rotation will be completed in a district general hospital within the region before coming to Northern General Hospital to continue the rest of their stage one training alongside their academic time.

The initial three months of training is supernumerary while obtaining the initial assessment of competence before joining the appropriate on-call rota at the respective placement. Once completed, the resident will continue to work towards the stage one curriculum.

Clinical anaesthetic training in stage one is three years (four years if ACCS); therefore, the ACF covers the first two years of training over three years, including the protected academic time. The remaining year of stage one anaesthetic training will be completed as a standard training programme before entering higher specialty training, assuming all competencies are met.

Post Details

JOB TITLE: NIHR Academic Clinical Fellowship in Anaesthesia and Perioperative Medicine

BRIEF OUTLINE:

The clinical programme is designed to provide training from either ST1 or ST3 level for a period of 3 years.

Objectives of the Training Programme:

1. To undertake Core Anaesthetic Training with ongoing progression available for completion of specialist training in Anaesthesia (single specialty).
2. To undertake a programme in research methodology, leading to a PG Cert.
3. To identify an area of academic and clinical interest upon which to base an application for an externally funded PhD programme.

Successful candidates:

Completion of this post will result in entry to higher specialty training. It is expected that the resident will pursue an externally funded research fellowship while in specialty training, leading to the award of a PhD or MD. Subsequently, the candidate will be eligible and supported to apply for either a Clinical Lecturer post or a Clinician Scientist Fellowship.

Unsuccessful candidates:

If the post-holder does not achieve the expected clinical competencies, this will be handled in the same way as for all other residents in speciality training.

If the post-holder fails to achieve academic competencies or is unsuccessful in obtaining research funding, they would be anticipated to return to a clinical training post. This will be discussed in good time with the Training Programme Director through the system for appraisal and mentoring of academic residents. Whilst no guarantee of an appropriate post is possible, every effort will be made to accommodate such individuals within the local training schemes.

CONTACTS

Academic Leads and Supervisors:

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Academic Training Programme Director

Professor Janet Brown

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Further Information

For informal enquiries about the programme, contact Jason Mann (jason.mann@nhs.net)

For more information on Sheffield, see https://www.sheffield.ac.uk/medicine-dentistry-health/study/clinical-academic-training

For more information on NIHR clinical academic training, see http://www.nihr.ac.uk/IAT

Because of the nature of the work for which you are applying, this post is exempted from the provisions of Section 4 (2) of the Rehabilitation of Offenders Act 1974 by virtue of the Rehabilitation of Offenders Act 1974 (Exceptions) Order 1975.

Applicants are therefore not entitled to withhold information about convictions, which for other purposes are "spent" under the provisions of the Act, and in the event of employment any failure to disclose such convictions could result in dismissal or disciplinary action by the University. Any information given will be strictly confidential and will be considered only in relation to an application for positions to which the Order applies.

For further information about the Academic Clinical Fellowship programme, please refer to the NIHR (National Institute for Health Research) Integrated Academic Training (IAT) page on https://www.nihr.ac.uk/explore-nihr/academy-programmes/integrated-academic-training.htm#one

Person Specifications

Applicants for this post will be required to meet the relevant Clinical eligibility criteria for the appropriate specialty and level listed at: -

Please note - (applicants applying for Surgical, Medical or Psychiatry specialties at ST3 or above may be required to consult the relevant Core Training person specification):-

https://medical.hee.nhs.uk/medical-training-recruitment/medical-specialty-training/person-specifications

AND the Academic eligibility criteria listed at:

https://medical.hee.nhs.uk/medical-training-recruitment/medical-specialty-training/person-specifications