# Job Description

# NIHR Academic Clinical Fellowship

# Neurosurgery ST1 (1 post)

The University of Sheffield, in partnership with Health Education England Yorkshire and the Humber and the Sheffield Teaching Hospitals NHS Trust, has developed an exciting pathway of academic clinical training opportunities.

Applications are now invited for an Academic Clinical Fellowship in Neurosurgery at ST1 level. This new post has been created as part of the Health Education England (HEE)/National Institution for Health Research programme of Integrated Academic Training and offers candidates a comprehensive experience of clinical academic medicine working alongside internationally renowned clinicians and researchers.

***ST1-level applicants***– You will also need to apply through National Selection for Neurosurgery and meet the appointment and interview requirements for clinical benchmarking to confirm any offer made.

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 the next generation of academic clinicians.

This Academic Clinical Fellowship (ACF) programme in Neurosurgerywill be run by the University of Sheffield, the Sheffield Teaching Hospitals NHS Trust and Health Education England Yorkshire and the Humber.

Academic Clinical Fellowships (ACFs) are 3 year fixed-term national training posts. They attract an NTN(A) and trainees 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 at whose Medical School their academic research is supported.

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

ACF trainees 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).

All Academic Clinical Fellowships are run-through posts, regardless of specialty, with the exception of ‘Medical Education’ ACFs. A trainee entering ACF in a specialty during a Core Training period would therefore be guaranteed continued training to CCT in the eventual specialty, as long as 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) – Neurosurgery

## 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

**Department of Neuroscience**

[www.sheffield.ac.uk/neuroscience](http://www.sheffield.ac.uk/neuroscience)

The Neuroscience Department comprises multidisciplinary groups from Neurology, Neurosurgery, Neuropathology, Neuroimaging and Neuroscience working in both basic and clinical neuroscience. The major areas of research interest include neuro-oncology, neurodegenerative diseases (diseases of the motor system, basal ganglia including deep brain stimulation and dementia), epilepsy (including non-epileptic attack disorder), cerebrovascular (including stereotactic radiosurgery for vascular anomalies) and neuroinflammation.

The Sheffield Translational Brain Tumour Research group research portfolio includes investigation of the mediators of therapeutic resistance in brain tumours at regional, cellular and molecular scales using focussed functional and genome-wide approaches. Strong collaborative links between Neuroscience, Oncology and Metabolism, and Department of Neurosurgery at Sheffield Teaching Hospitals NHS Foundation Trust facilitate excellent access to fresh tumour specimens and robust investigation of novel strategies to develop more effective treatments using a multidisciplinary approach. The development of unique 3-dimensional *ex vivo* patient-derived models of glioblastoma, which recapitulate features of intratumoural heterogeneity, is an area of particular research strength. Within this, the group have pioneered the ‘Sheffield Protocol’ which enables the generation of treatment resistant glioblastoma stem cells from infiltrated brain tissue adjacent to contrast enhancing tumour within *en bloc* partial lobectomy specimens to represent residual disease that is normally left behind after surgery. The group also explore new ways to target DNA damage repair in brain tumours, including through the use of DNA damage response inhibitors – such as PARP inhibitors, which were developed in part through Sheffield research and are now clinically-approved to treat numerous cancer types globally. Excellent collaborations with industry are utilised, including: in the *ex vivo* phenotypic drug screening programme using ultra-high content microscopy of freshly dissociated tumour tissue to prioritise the clinical potential of over 260 approved and experimental compounds, and; partnership with Novocure (market cap $13.5 billion), the world’s leading producer and patent holder for clinical tumour treating fields (TTFields) technology, where the group are developing novel combinatorial strategies based on the DNA damage response modulatory response of TTFields. The development of surgical ‘Phase 0’ / ‘window-of-opportunity’ trials, to establish if candidate therapies are able to successfully exert therapeutic effects beyond the blood-brain/tumour barrier, intra-cavity surgical delivery of targeted therapeutics, and clinical studies to optimise early detection of disease progression are further areas of emerging research for the group.

The Neurodegenerative Disease group research portfolio includes genetic, cellular, molecular and clinical research into common disorders including motor neuron diseases, Parkinson’s disease, Huntington’s disease and the ageing brain and dementia. The research focus is strongly translational and is primarily located in a 2,800m2 research facility, the Sheffield Institute for Translational Neuroscience (SITraN, http://sitran.org/) which was officially opened by Her Majesty The Queen, in November 2010. Research programmes include clinical research aimed at the identification of biomarkers; disease sub-classification and stratification; personalized medicine, neuroprotective clinical trials and research aimed at innovation and improvement of symptomatic management of neurological disorders. SITraN houses a Centre for Genome Translation which integrates genetics and genomics data to sub-classify our diseases of interest, to predict drug responses and to identify new therapeutic targets.

There are strong collaborative links with other Neuroscience groups within The University of Sheffield, including: the neuroradiology group which focuses on neurodegenerative processes (including state-of-the art 31P-MR Spectroscopy); the Bateson Centre with major strengths in small invertebrate and vertebrate model systems for neurodegenerative disease (https://www.sheffield.ac.uk/bateson); the Cognitive Neuroscience and Neuroimaging groups in the Department of Psychology; and with several research groups at the School of Health And Related Research (ScHARR, https://www.sheffield.ac.uk/scharr) including Public Health, Health Services Research and development of assistive technologies. There are also strong links with the Institute for In Silico Medicine (INSIGNEO, https://insigneo.org/).

In 2017, Sheffield was awarded a National Institute for Health (NIHR) Biomedical Research Centre which is entirely dedicated to improving the treatment and care of people living with chronic neurological disorders (http://sheffieldbrc.nihr.ac.uk/). One year BRC research fellowships are available.

Research activity within the Department is supported through a broad portfolio of research funding. This includes project and programme grant support from major UK funding organizations such as the Wellcome Trust; Medical Research Council; NIHR; EU and multiple neurological and psychiatric disease related charities. Substantial funding from biotechnology and pharmaceutical companies supports our translational and clinical research programmes. The Department of Neuroscience attaches great importance to career development. We have an excellent track record of attracting prestigious external fellowship awards and six of these fellows have recently progressed to faculty positions within the Department.

The Department of Neuroscience currently has over 200 members of staff and graduate students.

## Research Protected Time:

Research protected time will be based on a block release system to allow dedicated protected time away from clinical duties for academic research.

The clinical programme is designed to provide training from ST1 level for a period of 3 years and confers a run-through to Neurosurgery specialty training CCT as a clinical-only trainee (subject to attainment of the requisite clinical competences) for a further five years.

**Objectives of the Training Programme:**

1. To undertake specialist training in Neurosurgery.

2. To undertake a generic programme in research methodology.

3. To identify an area of academic and clinical interest upon which to base an application for an externally-funded MD/PhD programme.

4. To complete the MRCS examination (if this has not already been completed by the time of appointment).

**Relationship between Academic and Clinical Training**

The post-holder will be part of the South Yorkshire specialist registrar rotation in Neurosurgery. The post forms an integral part of the clinical neurosurgical training programme led by Training Program Director Mr Nick Phillips. A selection of placements will be undertaken in discussion with Dr Saurabh Sinha (Deputy Training Programme Director) and Professor Bandmann (Academic Training Lead for Neuroscience). The Academic Training Lead for Neurosurgery is Mr Yahia Al-Tamimi. Further details of the UKCRC/MMC integrated academic training pathway can be found at www.nihr.ac.uk/

Academic training will be based in the Department of Neuroscience, University of Sheffield.

## Academic Clinical Fellowship Training Programme: Research Component

**Main Activities & Responsibilities:**

This is a 3 year full time training post carrying a NTN(a) in Neurosurgery. The successful applicant will have evidence of academic achievement and ideally have research experience. They should be aiming to pursue a career in academic neurosurgery.

**Research**

The ACF will undertake a 9 month research period with the aim of developing pilot data to support an external PhD fellowship application e.g. to NIHR, MRC or Wellcome Trust. The research project will align with one of the key themes within the NIHR Sheffield Neuroscience BRC and/or the Sheffield Teaching Hospitals Neuroscience Academic Directorate related to neurosurgery (neuro-oncology, epilepsy – including surgical management, neurodegeneration – including deep brain stimulation, neuroinflammation, cerebrovascular disease). Projects can be within any part of the translational research pipeline. The specific details can be finalised following appointment in consultation with Professor Oliver Bandmann and potential academic supervisors. A wide range of academic training opportunities are available. The 9 month research period will be undertaken either as 3 three-month blocks or one 9-month block within the 3-year post.

**Teaching**

The post-holder will contribute to the undergraduate and postgraduate teaching programmes of the School and will also be involved with the assessment of students and have personal mentoring responsibilities for a small group of students on the MBChB programme.

**Accommodation and support for the post**

Office space will be made available within the Academic Neurosurgery Unit. Laboratory space will be made available as required.

**Successful candidates:**

The exit from this post will typically be to an externally-funded research fellowship, leading to award of a PhD and subsequently application either for 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 trainees in speciality medicine.

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 Programme Director for Neurosurgery through the system for appraisal and mentoring of academic trainees. Whilst no guarantee of an appropriate post is possible, every effort will be made to accommodate such individuals within the local training schemes.

**REPORT TO:**

Professor Oliver Bandmann and chosen academic supervisors.

## Academic Clinical Fellowship Training Programme: Clinical Component

## All acute in-patient investigation and treatment is carried out at the Royal Hallamshire Hospital. During the three-year flexible training period you will gain experience in clinical and operative management of neurosurgical patients as outlined in the Curriculum for Neurosurgery.

## You will participate in out-patient clinic activities both at the Sheffield Teaching Hospitals and Sheffield Children’s Hospital. You will also be required to participate in ward based in-patient care, including the supervision of junior colleagues as you progress in the ACF.

During the ACF you will gain clinical exposure to associated specialities including neurology, neuro-intensive care and an allied surgical speciality, such as paediatric surgery.

**On-call rota**

You will be required to join the on call rota during the clinical training component of this programme.

**Mortality & Morbidity Meeting**

There is a monthly meeting at which you are expected to contribute.

**STH TRUST NEUROSCIENCES ACADEMIC DIRECTORATE**

**Clinical Neurosciences Royal Hallamshire Hospital**

**The South Yorkshire & North Trent Clinical Neurology Network and the STH Academic Directorate of Neuroscience**

**Neurology Services are commissioned by NHS England as specialised services. The service provider is the Academic Directorate of Neuroscience, which includes Neurology, Neurosurgery, Stereotactic Radiosurgery and Neurophysiology and is based at the Royal Hallamshire Hospital, Sheffield, serving a population in excess of 2.2 million.**

**At present, 35 Consultant Neurologists, including five Professors who hold Honorary NHS Consultant contracts and 3 professors who hold honorary University contracts, provide neurological services. In addition, the Consultant Neurologists from Lincoln attend Sheffield one day a week. Clinics are held at the Royal Hallamshire and Northern General Hospitals in Sheffield and in DGHs at the following locations: Doncaster, Mexborough, Lincoln, Rotherham, Worksop, Chesterfield, Barnsley, Bakewell and Chapel-en-le-Frith.**

**Specialist clinics include those for people with Epilepsy, Memory & Movement Disorders, Multiple Sclerosis, Neuromuscular Disease, Motor Neurone Disorders, Vascular Diseases, Headache, Ataxia & Gluten Sensitivity, Neurogenetics and Sleep Disorders. There are also joint clinics with Ophthalmology, Rheumatology and an Epilepsy/Obstetric Clinic as well as multidisciplinary Wilson disease and Huntington’s disease clinics.**

**There are a total of 52 neurological and 44 neurosurgical inpatient beds, including a six bedded hyper acute stroke unit, plus 20 Neuro Critical Care beds and a Day Case Investigation Unit. Inpatient facilities exist within the directorate for managing acute neurological emergencies, neurological rehabilitation and the investigation of neurological inpatients. Supporting services include Physiotherapy, Occupational Therapy, Speech Therapy and Clinical Neuropsychology Services. There are ten Specialist Registrars, two F1 trainees and five Senior House Officers in Neurology.**

**There are 14 Consultant Neurosurgeons with special interests including: skull base, pituitary, complex spinal surgery, neuro-oncology, epilepsy and paediatric neurosurgery. Consultant Neurosurgeons provide out patient sessions at other hospitals in the area, including Lincoln and Doncaster. Sheffield currently has 10 Specialist Registrars in neurosurgery, seven of whom are in rotation with Hull.**

**The National Centre for Stereotactic Radiosurgery has been based within the Directorate since 1985, under the direction of four Consultant Neurosurgeons with a special interest in radiosurgery. There is a substantial infrastructure provided by Neuroradiologists, Physicists, Technicians and Radiographers. There are close links with adult and Paediatric Neuro-oncologists, based both at Weston Park Hospital, a designated Cancer Unit, and the Sheffield Children’s Hospital.**

**There is also a comprehensive Neurophysiological Service, including video and ambulatory EEG, EMG and evoked responses, intra-operative recording, provided by six Consultant Neurophysiologists.**

**The Consultant Neuroanaesthetists play an important role in managing patients in the Neuro Critical Care Facilities, in addition to supporting theatre and diagnostic activities.**

**There is access to extensive neuroradiological investigational and interventional facilities, including MR and CT imaging and digital angiography, with dedicated Neuroradiologists, plus support from the University’s Academic Unit of Radiology.**

**In-patient rehabilitation facilities exist within the directorate at the Royal Hallamshire site and in Osborne 4 Ward at the Northern General Hospital. Supporting services include physiotherapy, occupational therapy, speech therapy and clinical neuropsychology.**

**Three honorary Consultant Neuropathologists, from the University’s Department of Neuroscience, provide neuropathology services, including peripheral nerve and muscle studies.**

**Nurse specialists and members of the Professions Allied to Medicine provide an extensive outreach service for patients with neurological disabilities, including an outpatient head injury rehabilitation service.**

**There are three Consultant Paediatric Neurologists based at the Sheffield Children’s Hospital, at which full operative facilities exist for Paediatric Neurosurgery.**

# CONTACTS

## Academic Leads and Supervisors:

Professor Oliver Bandmann

Academic Lead for Neurology

Professor of Movement Disorders Neurology

SITraN

Tel 0114 2222295

[o.bandmann@sheffield.ac.uk](mailto:o.bandmann@sheffield.ac.uk)

Academic, Educational and Clinical supervisors will be assigned following appointment to align with the individual’s needs

## Training Programme Director (clinical):

Clinical Programme Director Mr Saurabh Sinha (saurabh.sinha@nhs.net)

## Academic Training Programme Director

Professor D O Anumba [d.o.c.anumba@sheffield.ac.uk](mailto:d.o.c.anumba@sheffield.ac.uk)

Chair of Obstetrics and Gynaecology

Honorary Consultant in Obstetrics & Gynaecology/Subspecialist in Fetomaternal Medicine

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**Further Information**

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) on <https://www.nihr.ac.uk/explore-nihr/academy-programmes/integrated-academic-training.htm>

**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):-

<http://specialtytraining.hee.nhs.uk/Recruitment/Person-specifications>

AND the Academic eligibility criteria listed at:

<http://specialtytraining.hee.nhs.uk/Recruitment/Person-specifications>

**How to Apply**

For more information about applying to ACF vacancies in Health Education England Yorkshire and the Humber please visit:-

<http://www.yorksandhumberdeanery.nhs.uk/recruitment/our_vacancies/academic_recruitment>

Applications will only be accepted through the Oriel online application system:-

<https://www.oriel.nhs.uk>

Applications open: 10:00 on 1st October 2021

Applications close: 16:00 on 3rd November 2021

After the application deadline no applications will be accepted. There will be no exceptions to this deadline. You are advised to complete and submit your application ahead of the deadline to allow for any unforeseen problems.

**Please note:**  All applicants who do not already hold a National Training Number (NTN) or Deanery Reference Number (DRN) in the GMC specialty to which they are applying for will be required to undertake the national clinical recruitment process and attend an assessment/interview for that GMC specialty as appropriate.

Interviews will be held online. The date will be confirmed to applicants via the Oriel application system.