Job Description

NIHR Academic Clinical Fellowship

Histopathology ST1

The University of Sheffield, in partnership with NHS England North East and Yorkshire 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 Histopathology at ST1 level. This new post has been created as part of the NHS England (NHSE)/National Institute for Health Research (NIHR) programme of Integrated Academic Training and 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.

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

Academic Clinical Fellowships (ACFs) are 3-year fixed-term national training posts. They attract an NTN(A) and residents undertake 75% clinical and 25% academic training over the term of the post. Residents are employed by the NHS Trust and have an honorary contract with the University at whose Medical School their academic research is supported.

Academic clinical fellows 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).

ACF residents are expected to 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. This degree would be completed as Out-of-Programme Research (OOPR).

All Academic Clinical Fellowships are run-through posts, regardless of specialty, except for ‘Medical Education’ ACFs. A trainee 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 Run-through status is withdrawn if ACFs do not complete the academic component.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) – Histopathology

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 (SMPH)

Based in the Faculty of Health at the University of Sheffield, SMPH encompasses the full range of clinical research from fundamental and discovery science to translational research, clinical trials and population health, health economics and healthcare decision making.

In the 2022 Research Excellence Framework, 87% of the department's research was rated as world-leading or internationally excellent. SMPH attracts more than £50 million annually in external research support. There are established collaborations between research groups and with UK and International partners. There is close collaboration between the NHS histopathology department and SMPH. Histopathology supports more than 50 clinical studies including:

- GUSTO – This multicentre prospective randomised controlled trial is investigating gene expression subtype-guided neoadjuvant therapy in muscle-invasive bladder cancer. Molecular pathology and translational sample analysis for the trial takes place in Sheffield.
- EVIDENT – This observational study investigates ex-vivo drug sensitivity testing across multiple cancer types and involves close links between the University and the histopathology department for fresh tissue sampling and clinical/pathological interpretation of study results.
- INVEST – This phase 1 trial is assessing safety and tolerability of intra-vesical atezolizumab in bladder cancer. There is an associated translational research programme examining drug penetration and markers of treatment response.

Cancer research is one of the research themes in SMPH. Pioneering work at the University of Sheffield in 2005, funded by Yorkshire Cancer Research, established how PARP inhibitors could be used as personalised therapy for cancer with BRCA mutations. This discovery led to the establishment of two funds by Yorkshire Cancer Research specifically for researchers at the University of Sheffield. The Pioneers Fund focuses on five research themes: Cancer prevention and early diagnosis, digital health, big data and advanced diagnostic technologies, translational and precision medicine, improving outcomes for cancer patients and enhancing patient experience and voice. The More Life to Live Fund has funding streams focused on: Reducing the risk of developing cancer, improving early

diagnosis and screening, improving treatments and reducing cancer-related health inequalities.

These funding schemes, together with pre-existing excellence in cancer research, foster a dynamic and innovative environment for prospective clinical academic histopathologists with an interest in cancer research. There is a cancer-specific seminar series and a broader regular research meeting to showcase work in the department. SMPH provides clinical academic training at all levels of medical career progression:

- Medical student SSC modules alongside established projects
- Medical Student Extended Clinical Placements
- One-year intercalated BMedSci or MSc degrees
- 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.

Academic Clinical Fellowship Training Programme: Research Component

The research component will be based in the Division of Clinical Medicine under the Supervision of Dr Jon Griffin (Senior Clinical Lecturer and Consultant Histopathologist). The ACF will work with tissue samples from clinical trials to develop novel biomarkers for personalised urological pathology. There is a mix of laboratory and molecular biology research as well as bioinformatics, digital pathology and data science within the group. Resources for biomarker discovery and validation include samples from the GUSTO, INVEST, IMPRoVE, STAR and SORCE trials. Data from the 100,000 Genomes Bladder Cancer Research Group is also available. There are existing collaborations with the Computer Vision group in Computer Science, the EVIDENT ex-vivo project, industry partners and the academic urology and oncology units. Potential projects include:

- Characterisation of the pre-treatment tumour immune microenvironment in bladder cancer using digital pathology and multiplex immunofluorescence to discover new biomarkers of response to neoadjuvant therapy.
- Investigating structural variants (e.g. kategis, chromothripsis, rigma, pyrgo and ecDNA) as biomarkers of cancer progression.
- Discovery and validation of digital pathology features of tumour biology (hypoxia, DNA damage, gene expression subtypes) from multi-modal datasets.
- Development of immunocompetent ex-vivo models of kidney and/or bladder cancer for high-throughput testing of novel immunotherapies.

The research time will be concentrated in a 9-month full-time block in the second year. This will involve bespoke training in laboratory and data analysis methods. The 9-month project will generate data for conference presentations, peer-reviewed publications and form the

basis of a doctoral fellowship application. It is recommended that this block is taken after passing the FRCPath part 1 examination to give a good grounding in clinical histopathology. The ACF will also have the opportunity to undertake modules from the master's in clinical research. This provides training in quantitative and qualitative research design and analysis, with opportunities for more advanced training in statistics and economic evaluation.

SMPH has a strong track record of supporting early career clinical academics from medical school through to senior clinical lecturer appointments. There is a dedicated clinical academic training team, mentoring and support.

Academic Clinical Fellowship Training Programme: Clinical Component

The 5-year Histopathology training programme provides comprehensive training culminating in the award of CCT and eligibility to work as a consultant histopathologist. The training programme in South Yorkshire receives good resident satisfaction scores in the GMC Training Survey. The FRCPath part 2 1st time pass rate is ~70% over the last 4 years compared to a national average overall pass rate of 48%.

The programme is based in South Yorkshire and Bassetlaw Pathology, with most training at Sheffield Teaching Hospitals NHS Foundation Trust. All major general histopathology specialities are based at the Royal Hallamshire Hospital site, and there is comprehensive training in macroscopy, microscopy, intraoperative/frozen section diagnosis, MDT working, molecular pathology and autopsy pathology. In addition, many tertiary and national referral specialities are based in the Royal Hallamshire Hospital Histopathology department. These include neuropathology, ophthalmic pathology, cardiac pathology, gestational trophoblastic disease, oral and maxillofacial pathology, and electron microscopy. Paediatric pathology training is delivered by Sheffield Children's Hospital, autopsy training is undertaken at Sheffield Medico-Legal Centre and 6 months of general histopathology training is provided at Chesterfield Royal Infirmary.

Over the five-year training programme, residents rotate through subspeciality placements and are encouraged to develop areas of subspeciality interest in later stages of training. There is regular departmental teaching including a slide club and consultant-led subspeciality sessions. Training facilities are excellent and include digital pathology workstations for residents and a 20-head multiheader microscope. Residents attend the regional teaching programme together with residents from West and Central Yorkshire. This comprises 15 full day sessions annually. In ST1, residents will attend national and regional teaching comprising 3-4 weeks of additional protected teaching.

Post Details

JOB TITLE: NIHR Academic Clinical Fellowship in Emergency Medicine

BRIEF OUTLINE:

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

Objectives of the Training Programme:

1. To complete integrated cellular pathology training and pass the FRCPath part 1 examination

2. To undertake a generic programme in research methodology and receive training in laboratory and data analysis methods

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

Successful candidates:

The exit from this post will typically be to an externally funded research fellowship, leading to the 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 Training Programme Director (TPD) 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.

CONTACTS

Academic Leads and Supervisors:

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Training Programme Director (clinical):

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Academic Training Programme Director

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Further Information

For informal enquiries about the programme, contact Steve Goodacre, jonathan.griffin@sheffield.ac.uk

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