# Job Description

# NIHR Academic Clinical Fellowship

# Histopathology ST1 (ST2/ST3) (1 post)

# NIHR Research Theme Platform Science and Bioinformatics

The University of Leeds, in partnership with Health Education England Yorkshire and the Humber and the Leeds 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 (ST2/ST3) level** in the **NIHR Research Theme Platform Science and Bioinformatics.** *This is a multi-specialty vacancy; an appointment may not be made in this specialty. There will be 1 ACF post in either Histopathology or Medical Microbiology*. Please note: Applicants looking for an ST2/ST3 Histopathology ACF post are encouraged to apply to this vacancy at ST1; if successful your experience can be assessed upon commencing in post enabling you to work at the appropriate ST level. This new post has been created as part of the Health Education England and National Institute for Health Research (NIHR) Academy Integrated Academic Training programme 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 the next generation of academic clinicians.

This Academic Clinical Fellowship (ACF) programme in Histopathologywill be run by the University of Leeds, the Leeds 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 will join the vibrant Leeds Clinical Academic Training scheme and undertake the 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 at ST1 in a specialty with 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) – Histopathology (NIHR Research Theme Platform Science and Bioinformatics)

## Duration of the Post

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

## Lead NHS Hospital/Trust in which training will take place

Leeds Teaching Hospitals NHS Trust; Histopathology ACFs will be based at St James’s University Hospital (SJUH), Leeds.

## Research institution in which training will take place

The research work will be carried out within **Pathology and Data Analytics** at the **Leeds Institute of Medical Research at St James’s (LIMR)**, School of Medicine, University of Leeds

## Research Protected Time:

ACFs would have day release training to attend and complete an accredited postgraduate programme in health research methodology at the University of Leeds (24 contact days plus additional private study usually completed in one year). Arrangements for research blocks or weekly research days, constituting 25% FTE academic time (and comprising a total of 9 months over the 3 year ACF post), are managed by local agreement with the academic supervisors within the Leeds Institute of Medical Research and clinical training programme director. This period of research will be used to obtain specific experience and knowledge in the research area of interest, obtain pilot data and apply for an external doctoral research fellowship.

## Academic Clinical Fellowship Training Programme: Research Component

Pathology and Data Analytics at the University of Leeds is led by Prof Quirke and is the largest academic Histopathology group in the UK with an excellent record of attracting and progressing careers of early pathology academics. Research in the department is focused on enhancing our ability to use data to create new wisdom for patient management in the light of the current data explosion in clinical databases, pathology, molecular pathology and digital pathology.

The United Kingdom has embarked on major genomics programmes UK Biobank and the 100,000 genomes project, now extending to 5 million genomes which we are involved in via a collaboration with UK Biobank and the Bowel Cancer GECIP. We are also funded to undertake a CRUK Grand Challenge on investigating the microbiome in bowel cancer (£2.5M of £20M of total grant) in association with 7 internationally leading centres, the EME INTACT trial which includes the role of the microbiome on anastomotic leaks and a series of initiatives on digital pathology, machine learning and artificial intelligence with £17.1M (£10.1M from Innovate UK). This is in addition to industrial funding on immune-oncology and data analytics (Roche) and participation in the Leeds NIHR Biomedical Research Centre.

The **ACF in NIHR Research Theme Platform Sciences and Bioinformatics** will undertake research into bowel cancer. 1.9M cases of bowel cancer occur annually worldwide; 25% present with advanced metastatic disease requiring chemotherapy/radiation treatment. We also use these treatments preoperatively in both rectal and increasingly colonic cancer, following the Foxtrot trial, the pathology/digital pathology of which was run by Leeds. Roughly 40% will not significantly respond but at present we are unable to identify them or the underlying cause.  Earlier prediction of non-response may enhance individual patient care with reduced iatrogenic morbidity and lower NHS costs. Excellent science and training in digital pathology, molecular and imaging pathology, the microbiome and translational programmes is available at Leeds. Profs Grabsch, Kather and Quirke have published on translational machine learning in digital pathology including in Nature Cancer and have industrial collaborations AI with Roche Diagnostics (patent applied for) and Heterogenius (Dr Derek Magee).

The ACF will be embedded with established computer scientists, specialist pathologists, a statistician and bioinformaticist. The project involves creating and validating new machine learning algorithm(s) on routine Haematoxylin and Eosin sections to predict non-response to therapies on our unique collection of 31 UK colorectal cancer clinical trials datasets. Starting with a hypothesis training set from MRC Focus1 trial (randomisation between oxaliplatin or irinotecan) the algorithm will be developed and validated on Focus2-4 and the preoperative therapy Foxtrot trials. We have access to the clinical trial outcomes and depth/extent of response. A back-up plan would be to investigate non-response to radiotherapy in MRC CR07/Aristotle if chemotherapy does not yield predictive algorithms. Bespoke training will include principles and practice of machine learning, digital pathology, GI pathology and computing. These algorithms may be transferable to upper GI trials.

## Academic Clinical Fellowship Training Programme: Clinical Component

The post holder will be based at St James’s University Hospital (SJUH) Wellcome Trust Brenner building for their academic activities and at SJUH Bexley Wing for their NHS duties as their training demands, but in agreement with the Academic TPD may spend some time in district general hospitals in order to obtain suitable training. These placements are arranged after discussion with the post holder to accommodate their training objectives as much as is possible within the overall West, East & North Yorkshire Histopathology training scheme. The purpose of the clinical training is to enable the trainee to become an independent diagnostic practitioner, as a minimum competent and as an ideal outstanding, with FRCPath qualification, certified completion of training from the GMC as well as all the organisational and interpersonal knowledge and skills required to accomplish that since this is the basis to becoming an outstanding academic.

The post holder will enter into the West, East & North Yorkshire Histopathology training programme, at the appropriate point according to their experience (ST1 to ST3). The NHS Department is sited in new purpose built facilities in the new £200M Oncology wing at SJUH opened in 2007. There are 35 consultants organized into teams that deliver site specialized histopathology. 44,000 surgical requests and >100,000 cytology requests are received per annum making Leeds one of the largest histopathology service in the UK. Approximately 800 adult autopsies are performed per year. Leeds is a major cancer centre providing secondary, tertiary and quaternary services to West Yorkshire and beyond. It hosts a Year 1 Histopathology School and FY2 academic posts providing the full range of postgraduate teaching. We also run an Academy of Medical Sciences Inspire programme that the ACF’s are expected to facilitate as well as intercalated BSc and MRes undergraduate students that ACF’s may be required to co-supervise.

The appointees will be expected to participate in the surgical and cytology rota and will report cases under supervision. This includes participation in the surgical cut-up. There is also a rota for post mortems, which include perinatal and neuropathological cases. Participation in the postgraduate training programme is mandatory as is attendance at black box meetings.

One day per fortnight during term time is set aside for postgraduate training and consists of slide seminars, postgraduate lectures and discussion of topics. This alternates between SJUH and the Royal Hallamshire Hospital, Sheffield. There are a full range of multidisciplinary team meetings in both hospitals and research seminars in LIMR at the Wellcome Trust Brenner Building.

The facilities for postgraduate NHS education are excellent and include seminar rooms with full audiovisual facilities on all sites, 3 multi-header microscopes of 8, 10 and 20 heads as well as many 2 headed microscopes. We have an advanced digital pathology facility: see [www.virtualpathology.leeds.ac.uk](http://www.virtualpathology.leeds.ac.uk/).

Appraisal of progress will be an integral part of the STR training programme, as per the Gold Guide and the individual will undergo an interim academic review in December each year and a formal academic review as part of their annual ARCP.

# CONTACTS

**Academic Supervisors:**

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## Training Programme Director (clinical):

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## Academic Training Programme Director

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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 Academy webpage

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