Job Description

NIHR Academic Clinical Fellowship

Respiratory Medicine IMT1/2 (1 post)

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 Respiratory Medicine at IMT1/2 level. This new post has been created as part of the NHS England (NHSE)/National Institute for Health Research Trainee 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 Respiratory Medicine will be run by the University of Sheffield, Sheffield Teaching Hospitals NHS Trust and NHS England North East and Yorkshire.

Academic Clinical Fellowships (ACFs) are 3-year fixed-term national training posts. 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 are also 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, except ‘Medical Education’ ACFs. A trainee entering ACF at IMT1 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 Run-through status is withdrawn if ACFs do not complete the academic component.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) – Respiratory Medicine

Duration of the Post

Up to 3 years. This is a full-time training post. The clinical programme is designed to provide training from IMT1/2 level with a period of 3 months protected research time each year (25% academic, 75% clinical).

Lead NHS Hospital/Trust in which training will take place

Sheffield Teaching Hospitals NHS Trust.

Objectives of the Training Programme

1. To obtain a higher specialist training post in Respiratory Medicine. Assuming IMT is completed successfully, ACF trainees will run through into their higher specialty at ST4 level.
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 PhD programme.

Research institution in which training will take place

The academic component of this post is hosted by the University of Sheffield, School of Medicine and Population Health.

Current staffing of unit: The department has 35 consultant respiratory physicians, spanning the Northern General and Royal Hallamshire Hospital sites, and includes a large and active academic programme. There are three established clinical academics in respiratory medicine – Professor Stephen Renshaw, Dr Roger Thompson and Dr Gillian Tomlinson – with strong track records of fellowship and grant funding, supervision and high-quality outputs. Key research themes include inflammation, infection, pulmonary vascular disease and lung imaging, with recent successes including an MRC award (Renshaw, Thompson) and a Wellcome Discovery Award (Renshaw).

Research Protected Time: The successful applicant will perform 9 months of research.

Academic Clinical Fellowship Training Programme: Research Component

The fellow will be encouraged to explore potential areas of interest with supervisors across the Department and to develop an independent research programme. Opportunities exist to focus on specific diseases or underpinning biology or to develop expertise in lung imaging.

An example project would be Molecular Phenotyping of BAL Cells Linked to Regional Lung Imaging in ILD (Supervisors: Roger Thompson/Gillian Tomlinson. Clinical experts: Steve Bianchi/Nick Weatherley/James Eaden. Imaging expert: Professor Jim Wild, MR physicist). Building on Sheffield's hyperpolarised xenon MRI programme (POLARIS) and its established

interstitial lung disease (ILD) clinical service, this project would aim to characterise transcriptional signatures of bronchoalveolar lavage cells from patients with ILD and link these to regionally resolved imaging biomarkers of gas exchange and perfusion. The hypothesis is that molecularly distinct cell populations could be identified using hyperpolarised gas imaging, providing mechanistic insight into disease heterogeneity. The project would leverage existing MRI infrastructure, the ILD clinic's regular access to BAL samples, and Sheffield's bioinformatics capability, with potential to guide stratification strategies for anti-fibrotic or immunomodulatory therapy.

Another example project would be RNA-Binding Protein Regulation of Neutrophil Phenotypes in COPD (Supervisors: Steve Renshaw, Roger Thompson, Lynne Prince). Neutrophilic airway inflammation drives morbidity in COPD, yet neutrophils remain resistant to corticosteroids. Drawing on established expertise in ELAVL1 biology and neutrophil phenotyping, this project would characterise targets linked to ELAVL1 identified by ongoing work on peripheral blood and sputum neutrophils from COPD patients at baseline and during exacerbation. Human neutrophil samples are readily available under existing ethical approvals at Sheffield. Identification of targets that regulate RNA-binding proteins could provide anti-inflammatory therapeutic options.

A third potential project would be Hyperpolarised Gas MRI as a Biomarker of Disease Severity and Treatment Response in Bronchiectasis (Supervisors: Hani Abo-Leyah, Jim Wild, Roger Thompson). Bronchiectasis is a heterogeneous condition for which objective, regionally resolved measures of airways disease are lacking; current assessment relies heavily on CT imaging and spirometry, neither of which captures lung functional impairment. This project would apply hyperpolarised xenon MRI to characterise regional ventilation defects and gas exchange in patients with bronchiectasis of varying aetiology and severity and explore whether imaging biomarkers correlate with clinical outcomes including exacerbation frequency and quality of life. Sheffield's POLARIS group has established imaging protocols applicable to airway disease, and the respiratory department runs dedicated bronchiectasis clinics with an established patient population. This would be among the first systematic applications of hyperpolarised gas MRI in bronchiectasis, opening a novel research niche with clear potential to inform future interventional studies, particularly with the emergence of new inhaled and systemic therapies.

In addition to the above examples, there are research-interested clinicians in pleural disease, CF, COPD, asthma, interstitial lung disease, bronchiectasis and sleep/ventilation with potential to develop exciting projects in any of those areas. Contact the academic lead (Dr Roger Thompson) for further information.

Academic Clinical Fellowship Training Programme: Clinical Component

Respiratory Medicine is a single Directorate across Sheffield, with a presence on both the Northern General and Royal Hallamshire Hospital sites, and Academic Directorate status within Sheffield Teaching Hospitals. There are currently 35 consultant respiratory physicians. The Northern General Hospital currently houses 4 base wards (108 beds) together with a 12-bedded regional Cystic Fibrosis Unit, and is affiliated with thoracic surgery, radiology, pathology, neurology, rheumatology, paediatrics and oncology services. Specialist areas include occupational lung disease, bronchiectasis, cystic fibrosis, lung cancer, pleural disease, sleep disordered breathing and neuromuscular disease, alongside nationally commissioned services for difficult asthma and interstitial lung disease. The Royal Hallamshire Hospital houses the nationally designated Pulmonary Vascular Disease Unit, the largest tertiary referral centre for pulmonary hypertension in Europe with over 2000 patients

on treatment; specialist training in right heart catheterisation and cardiac MRI is supported and encouraged. Joint clinics are held with haematology, rheumatology and immunology. Local training is available in thoracic ultrasound, pleural procedures, thoracoscopy, advanced bronchoscopy techniques and non-invasive ventilation. In addition to structured regional training days, there are two Yorkshire Thoracic Society meetings each year, weekly clinically focused PH educational meetings, a respiratory grand round, weekly ward-based teaching sessions and a weekly x-ray meeting. The higher specialist TPD (Dr Sriram Iyer) offers strong support for clinical academic trainees, including bespoke job plans to facilitate completion of specialist training and encourage research training fellowship applications.

Clinical posts on this training programme will be in Sheffield Teaching Hospitals, and at one or more district hospitals of Barnsley, Rotherham, Doncaster or Chesterfield. This will encompass core respiratory training combined with continued demonstration of competency in GIM.

Successful candidates:

The exit from this post will typically be to an externally-funded research training 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

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Further Information

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

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 IMT training: https://www.imtrecruitment.org.uk/recruitment-process/am-i-eligible