

## Job Description

### NIHR Academic Clinical Fellowship

### Respiratory Medicine ST4 (1 post)

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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 ST4 level. This new post has been created as part of the NHS England (NHSE)/National Institution 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, 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 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).

The Clinical Academic Programme at Sheffield has recently introduced a competitive ACF pump-priming award. Trainees can apply for up to £2000 for initial costs for work aimed at achieving a research fellowship.

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

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### Job Title

NIHR Academic Clinical Fellow (ACF) – Respiratory Medicine

### 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

The academic component of this post is hosted by the University of Sheffield Division of Clinical Medicine.

**Current staffing of unit:** The department has over 50 academic staff with a range of research expertise spanning fundamental, translational and clinical science. Clinical academics working within the unit include Professor Steve Renshaw, Professor Alison Condliffe, Dr Roger Thompson and Professor Alex Rothman. Respiratory scientists include Professor Colin Bingle, Dr Lynne Prince and Dr Lisa Parker. Areas of research interest within the department include respiratory infection, innate immunity in lung diseases and pulmonary vascular disease.

**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 program. Opportunities exist to focus on specific diseases (for example, COPD or pulmonary hypertension), underpinning biology (for example, neutrophil or macrophage biology) or to develop expertise in lung imaging.

An example project would be using innovative approaches to develop new therapies for Chronic Obstructive Pulmonary Disease. COPD is caused by the action of neutrophil proteases on the lung and this project would focus on understanding how neutrophil function can be controlled to prevent lung damage in COPD. Professor Stephen Renshaw (Bateson Centre Director) has world leading expertise in models of inflammation and in screening new drugs that could be used to treat inflammation. He is also a clinician working in acute respiratory medicine, seeing patients with COPD. Professor Alison Condliffe is an expert on respiratory immunity, with particular expertise on respiratory infection and on neutrophil

biology, particularly neutrophil priming. Dr Lynne Prince is a neutrophil biologist, with expertise on mouse models of lung inflammation, including COPD. Together Renshaw, Condliffe and Prince have identified potential therapies for COPD that are poised for further development. There are no disease modifying drugs in COPD, with pharmacotherapy aimed at relief of symptoms and prevention of exacerbations. Work in Sheffield has identified a number of potential therapeutic approaches that might be effective in treating COPD. These approaches drive inflammation resolution by targeting the neutrophil, leading to healing of inflammation in diverse models. Candidate therapeutics include ErbB inhibitors (Rahman et al, eLife 2019) and tanshinone IIA (Robertson et al., Science Translational Medicine 2014) among others. The fellow would choose from one of the potential therapeutic candidates and test these in mouse models of COPD, as a prelude to securing funding for moving into experimental medicine studies in man. Mechanistic studies will be performed in parallel, understanding how these compounds might have their effects, searching for better next-generation COPD therapies.

Another example project would be focussed on the use hyperpolarised gas MRI to investigate breathlessness, drawing upon technology pioneered in Sheffield by Professor Jim Wild and now entering clinical practice. Hyperpolarised gas MRI provides sensitive regional information relating to lung structure and function and avoids use of ionising radiation. Metrics generated by hyperpolarised gas MRI scans have potential to provide diagnostic information beyond that of CT or traditional lung function tests. MRI scans may provide novel outcome measures for intervention trials in pulmonary vascular disease and interstitial lung disease. Sheffield is actively involved in exploring the utility of lung MRI in COPD, ILD, cystic fibrosis and post-Covid breathlessness with opportunities for highly impactful further work as this technology becomes more widely available.

Another example would be focussed on the use of minimally invasive devices and remote monitoring technology to measure haemodynamics, physical activity and quality of life in patients with pulmonary arterial hypertension. These studies seek to evaluate the capacity of such technology to provide an early indication of clinical efficacy following an increase in drug therapy. If successful, this approach would provide the capacity to evaluate dose-response and time to effect in clinical studies and facilitate individualised therapy for patients.

## **Academic Clinical Fellowship Training Programme: Clinical Component**

STH is the regional centre for cardiothoracic services in South Yorkshire. The Academic Directorate of Respiratory Medicine 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. Nationally commissioned services for difficult asthma and interstitial lung disease exist within the training network. Local training is available in thoracoscopy, advanced bronchoscopy techniques, thoracic ultrasound, and non-invasive ventilation. The Royal Hallamshire Hospital houses the largest tertiary referral centre for Pulmonary Hypertension in Europe with over 1500 patients on treatment. Specialist training in right heart catheterisation and cardiac MR imaging is supported and encouraged. In addition to structured regional training days, there are two Yorkshire Thoracic Society meetings each year. Weekly clinically focused PH educational meetings are run by Dr Roger Thompson (former NIHR ACF and CL) and general education meetings while on the STH respiratory wards include a respiratory grand round, weekly ward-based teaching sessions and a weekly x-ray meeting. The 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.

## Post Details

### **JOB TITLE: NIHR Academic Clinical Fellowship in Respiratory Medicine**

#### **BRIEF OUTLINE:**

This is a 3-year full-time training post. The clinical programme is designed to provide training from ST4 level with a period of 9 months protected research time.

#### **Objectives of the Training Programme:**

1. To commence higher specialty training.
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.

#### **Successful candidates:**

The exit from this post will typically be to an externally-funded research training 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 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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### **Academic Leads and Supervisors:**

Professor Stephen A Renshaw  
Sir Arthur Hall Professor of Medicine  
Division of Clinical Medicine  
School of Medicine and Population Health  
University of Sheffield

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### **Head of School (South):**

Dr Steve Bianchi, [stephen.bianchi@nhs.net](mailto:stephen.bianchi@nhs.net)

### **Training Programme Director (clinical):**

ST4+ Dr Sriram Iyer, [sriram.iyer2@nhs.net](mailto:sriram.iyer2@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)

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## **Further Information**

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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**

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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>