# Job Description

# NIHR Academic Clinical Fellowship in Platform Science (“-omics”) and Bioinformatics

# Infectious Diseases ST3 (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 for academic clinical training opportunities.

Applications are now invited for an Academic Clinical Fellowship in Infectious Diseases at ST3 level. This new post has been created as part of the Health Education England (HEE)/National Institution for Health Research Trainee Coordinating Centre (NIHRTCC) programme of Integrated Academic Training and offers candidates a comprehensive experience of clinical academic medicine working alongside internationally renowned clinicians and researchers in Platform Science (“-omics”) and Bioinformatics.

***Please note:*** *This is a multi-specialty vacancy, an appointment may not be made in this specialty. There will be 1 ACF post in either Medical Oncology or Infectious Diseases.*

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 Infectious Diseaseswill 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 each year to support research training activity (e.g. to attend academic conferences).

ACF trainees will be supported to develop and submit an external funding application for a research training fellowship to enable them to complete a higher degree (PhD or research MD) following the completion of their ACF fixed-term post. If successful, this fellowship would be completed during Out-of-Programme Research (OOPR) time. As all Academic Clinical Fellowships are run-through posts, the current ST3 post would be guaranteed continued training to CCT, as long as they progress satisfactorily through both their academic and clinical training. Run-through status is withdrawn if ACFs do not complete the initial 9-month academic component.

# POST DETAILS

## Job Title

NIHR Academic Clinical Fellow (ACF) – Infectious Diseases

## 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 Foundation Trust.

## Research institution in which training will take place

Thefellowship will be hosted by a partnership between the South Yorkshire Regional Department of Infection and Tropical Medicine (SYRDITM) and the Departments of Microbiology and Virology at Sheffield Teaching Hospitals NHS Foundation Trust (Royal Hallamshire Hospital and Northern General Hospital sites), and The University of Sheffield Faculty of Medicine, Dentistry and Health (Academic Department of Infection, Immunity and Cardiovascular Disease). The SYRDITM, together with the Department of Genito-urinary Medicine, forms the Communicable Diseases Directorate. Communicable diseases also forms an academic directorate within the STH Academic Directorate of Specialised Medicine.

The SYRDITM is one of the largest infectious disease units in the country and consists of eight substantive NHS consultants and one specialty doctor. In addition, 3 academic consultants participate in ward activity in rotation throughout the year. Current trainees in the Department include 19 infectious disease specialty registrars, which includes one academic clinical lecturer and two academic clinical fellows. All training places are joint appointments with a second specialty: ID/Microbiology, ID/Virology or ID/GIM. A number of trainees are on placement out-of-programme completing higher degrees or clinical leadership fellowships.

SYRDITM has strong links with the Directorate of Laboratory Medicine comprising 7 NHS medical microbiology consultants, who work across NGH, RHH and Weston Park (oncology) Hospital. In addition, there are two consultant microbiologists based at Sheffield Children’s Hospital, who participate in the on-call rota as the laboratory at NGH processes samples from all 4 centres in addition to the considerable community workload. There are 3 NHS clinical virology consultants based at NGH, supporting the regional virology service. There are also good links with Public Health Medicine (PHE).

SYRDITM has close co-operative links with the Department of GU Medicine. HIV care is delivered locally through the active South Yorkshire HIV network which involves both SYRDITM and local and regional GUM departments. In-patient HIV care is delivered jointly by GUM and ID specialists in the SYRDITM.

Major strengths of training in the SYRDITM include local expertise in community-acquired infection, tuberculosis, HIV, viral hepatitis, imported infections, infections in immunocompromised hosts, travel medicine, vaccines and clinical trials. The unit is a national centre for Category 4 pathogen infection management and a regional hub for hepatitis C and multi drug resistant TB management. This is reflected by the numerous specialist clinics offered, active clinical trial, translational and basic science research programmes and representation and leadership on national and international platforms.

**Key Personnel of the Department of Infection, Immunity & Cardiovascular Diseases**

|  |  |
| --- | --- |
| Head of Department | Professor Tim Chico |
| Infection Driving Disease Processes Node leader | [Professor Colin Bingle](https://www.sheffield.ac.uk/iicd/profiles/bingle) |
| Senior Lecturer in Microbiology | [Dr Mark Thomas](https://www.sheffield.ac.uk/iicd/profiles/thomas) |
| Reader in Microbiology | [Dr Jon Shaw](https://www.sheffield.ac.uk/iicd/profiles/shaw) |
| Professor of Infectious Diseases & Immunology | Professor Sarah Rowland Jones |
| Florey Advanced Fellow/Honorary Consultant in Infectious Diseases | [Dr Paul Collini](https://www.sheffield.ac.uk/iicd/profiles/collini) |
| Wellcome Trust Intermediate Clinical Fellow/Honorary Consultant in Infectious Diseases | [Dr Thushan de Silva](https://www.sheffield.ac.uk/iicd/profiles/desilva) (jointly with Imperial College) |
| Florey Advanced Fellow/ Honorary Consultant in Infectious Diseases | Dr Thomas Darton |
| Honorary Professor of Infectious Diseases | Professor Steve Green |
| NIHR Clinical Lecturer in Infectious Diseases & Microbiology | Dr Ruth Payne |

**NHS Consultants in the Departments of Infectious Diseases and Microbiology**:

Infectious Diseases

Professor Stephen Green Clinical Lead

Dr Julia Greig HIV Lead

Dr Anne Tunbridge ID Training Programme Director

Dr Ben Stone Hepatitis Lead

Dr Katherine Cartwright OPAT Lead

Dr Rachel Foster Joint post with acute medicine, NGH

Dr Chris Durojaiye Joint post with Royal Derby Hospital

Dr Jody Aberdein Joint post with acute medicine, NGH

Dr Alicia Vedio Specialty Doctor

Medical Microbiology

Dr Helena Parsons Clinical Lead

Dr Laura Prtak Microbiology/Virology Training Programme Director

Dr Rob Townsend

Dr David Partridge Research lead for Laboratory Medicine

Dr Lisa Ridgway Chair, Hospital Infection Society

Dr Gayti Morris Joint post with Sheffield Children’s Hospital

Dr Christine Bates Director of Infection Prevention and Control

Dr Sarah Thompson Sheffield Children's Hospital

Clinical Virology

Dr Mohammad Raza Clinical Lead

Dr Alison Cope Director of Medical Education

Dr Cariad Evans

In addition, to the joint trainees in ID/MM, ID/MV and ID/GIM, there are 4 standalone trainees in medical microbiology and 1 in clinical virology.

## Academic Clinical Fellowship Training Programme

**Objectives of the Training Programme**

1. To continue clinical training in infectious diseases with a second specialty from ST3 level.
2. To undertake the NIHR Research Training Programme in research methodology through modules of the MSc in Clinical Research and other continuing professional development courses.
3. To identify an area of academic and clinical interest upon which to base an application for an externally-funded PhD/MD application (or post-doctoral training fellowship if already holding a PhD).

**Relationship between Academic and Clinical Training**

The clinical programme is designed to provide training from ST3 level through to completion of CCT. In the first two years the successful candidate will rotate through the departments of infectious diseases, microbiology and virology to complete ‘Core Infection Training’. During the 3 years of the ACF programme, the candidate will conduct a 9 month research attachment, during which time there is no out of hours on-call commitment. After progression to Higher Specialist Training, time will be split between ID and the second speciality: internal medicine, microbiology or virology.

All components of the clinical infection training are based at STH on either the Royal Hallamshire or Northern General sites; occasionally internal medicine attachments are undertaken in other hospitals in South Yorkshire and microbiolgy/virology training posts will also be completed at the Sheffield Children’s Hospital.

Academic trainess will be based in the Department of Infection, Immunity and Cardiovascular Disease in the Medical School on K/L floor of the Royal Hallamshire Hospital tower block. Laboratory facilities and the Clinical Research Facility are located nearby. Additional work or projects may be undertaken in other university departments including the Department of Molecular Biology and Biotechnology based in Firth Court on Western Bank.

## Research Protected Time:

**Main Activities & Responsibilities:**

This is a 3-year full-time training post carrying an NTN(A) in Infectious Diseases, with run-through to completion of CCT.

The successful applicant will have evidence of academic achievement and ideally have research experience and an intercalated BSc. They should be aiming to pursue a career in academic infectious diseases.

**Research Component**

The successful candidate will be supported in developing an area of research that draws on existing platform science strengths in microbiome profiling, RNAseq and epigenetics. Potential projects could focus on applying platform science methodology to explore respiratory tract mucosal immunity and/or pathogen diversity in vulnerable populations. For example, live attenuated influenza vaccine (LAIV) can be used to explore the immunological mechanisms behind the enhanced severity of respiratory viruses in immunosuppressed individuals, as well as possible contribution to HIV-associated chronic airway defects in alveolar macrophages and other immune subsets. Projects could also focus on nasopharyngeal and lung microbiome profiles that differ between HIV-positive and negative / immunosuppressed individuals or apply next-generation sequencing and bioinformatics methods to characterize respiratory pathogens in hospitalised populations. Creation and development of other appropriate infection themed platform science-based research ideas will be encouraged, however, especially those with ~~a~~ translational patient, public or global health applications.

**Report to:** Dr Paul Collini and chosen academic supervisors.

The Fellow will be based within the Department of Infection, Immunity and Cardiovascular Disease (IICD). IICD contains several units focused on host pathogen interactions and members who are part of the Florey Institute. Researchers from infectious diseases, microbiology, respiratory medicine and gastroenterology working mainly on mucosal infections comprise the infection driving disease node <https://www.sheffield.ac.uk/iicd/research/iddp/index>.

Research in the node employs cutting-edge techniques in *in vitro* and *in vivo* studies with a variety of pathogens performed across species ranging from fish to man. The research interests of the node range from basic science to clinical infection, with a particular focus on molecular and cellular pathogenesis, innate and acquired immunity.

In the Florey Institute there is a strong focus on *S. aureus*, *S. pneumoniae* and *S. pyogenes* pathogenesis, while broader IICD clinical interests include meningococcal disease, other Gram-negative pathogens, rhinovirus, influenza virus and HIV-1/2. There is specific interest and expertise in understanding how viral infections interact with core bacterial infections and how this regulates inflammatory pathways. Molecular microbiology focuses on bacterial signal transduction systems, regulation of glycosylation, secretion systems and the identification of novel virulence determinants and vaccine targets.

Within the infectious diseases academic team, there is currently a specific interest in translational biology using healthy volunteer models of cutaneous and lung inflammation as well as the use of samples from patients with HIV, chronic lung diseases or vaccine recipients. These models include the use of human challenge studies to address specific host-pathogen interaction questions in additional to their use in the discovery, evaluation and development of vaccines, diagnostics and therapeutics.

Department specific educational activities include a popular regular seminar series and weekly Department Research in Progress (DRiP) meetings. The fellow would also join the Florey Institute’s programme of seminars, public engagement and cross-faculty collaborative activities.

IICD is highly research active but also contributes substantially to the school’s teaching activities. In addition to teaching infectious diseases and medical microbiology to medical and dental students, members of the department train and supervise clinical (MD/PhD) and non-clinical fellows and graduate students (PhD/MSc). IICD receives a high level of funding from the Wellcome Trust, MRC, BBSRC, NIHR and research charities.

The department is well equipped with laboratory space, facilities and technical staff, and all academics have access to core facilities including sequencing, proteomics, expression analysis, confocal microscopy, multi-channel FACS, category 3 laboratories, a clinical research facility, and mathematical/statistical support.

**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 an academic clinical lecturer post and/or an intermediate or advanced 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 for Infectious Diseases 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.

## Clinical Component

The specialty of Infectious Diseases provides the opportunity for a career including challenging and constantly varied clinical scenarios to intellectually stimulating research into diseases of major global significance. Training in this specialty has the advantages of a clearly objective-based curriculum and offers dual programmes in Infectious Diseases combined with training in General Internal Medicine, Medical Microbiology, or Virology. Additional training is included as appropriate in Intensive Care, Genitourinary Medicine, and Public Health Medicine.

The essential (generic) training tracks in the curriculum are designed to produce competency in:

* Community-acquired infection and its management,
* Geographic and travel medicine,
* The management of immunocompromised patients including HIV/AIDS,
* Antimicrobial therapy,
* Management of hospital-acquired infection including infection in the Intensive / High dependency setting,
* Understanding of the role of microbiology services in the management of infection,
* Research methodology and its application to clinical practice,
* Various optional subjects such as virology, clinical pharmacology, public health, epidemiology, vaccinology and international work.

The challenge to rationalise antimicrobial use in the light of increasing resistance, to combat clinical problems of healthcare-acquired infection and worldwide pandemics of HIV, hepatitis and malaria and to respond to emerging infection problems such as MERS CoV, and epidemics of infections like Ebola makes infectious diseases an exciting and ever-changing specialty central to maintaining good local, national, global and planetary health.

**Teaching**

The post holder will contribute to the undergraduate and postgraduate teaching programmes of the University of Sheffield Faculty of Medicine, Dentistry & Health 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 department. Laboratory space will be made available as required.

# CONTACTS

## Academic Leads and Contacts

**Academic Lead for Infectious Diseases:**

Dr Paul Collini

Florey Advanced Fellow & Hon Consultant Infectious Diseases

Florey Institute & Department of Infection, Immunity and Cardiovascular Diseases (IICD),

Room LU108, University of Sheffield Medical School,

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**Director of Clinical Academic Training, Sheffield Medical School & South Yorkshire and Humber Deanery:**

Professor Dilly Anumba

Chair of Obstetrics and Gynaecology

Honorary Consultant in Obstetrics & Gynaecology/Subspecialist in Fetomaternal Medicine

Department of Human Metabolism

Academic Unit of Reproductive and Developmental Medicine

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

**Dr Trevor Rogers**

[susan.grange@yh.hee.nhs.uk](mailto:susan.grange@yh.hee.nhs.uk)

**Training Programme Director, Infectious Diseases (clinical):**

Dr Anne Tunbridge,

[anne.tunbridge@sth.nhs.uk](mailto:anne.tunbridge@sth.nhs.uk)

# 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) Trainee Coordinating Centre (NIHRTCC) page on <https://www.nihr.ac.uk/funding-and-support/funding-for-training-and-career-development/training-programmes/integrated-academic-training-programme/integrated-academic-training/academic-clinical-fellowships/>

# 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> to be updated by recruitment team

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](https://www.oriel.nhs.uk/)

Applications open:           10:00 on 8th October 2018

Applications close:           16:00 on 5th November 2018

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 in Sheffield during the interview window of 10th to 21st December. Finalised dates are to be confirmed.