



UNIVERSITY OF
CAMBRIDGE

Academic Clinical Fellowship

In

Infectious Diseases

(ST3 or IMT3/ST4)

One post

Entry: August 2027

Job title	Academic Clinical Fellow in Infectious Diseases
Post(s)	ACF-2027-14-009 – Prevention and Public Health Post 1 – Infectious Diseases OR Obstetrics and Gynaecology OR Renal Medicine
NIHR Priority Research Theme	Post ACF-2027-14-009 has been awarded under the research theme Prevention and Public Health The appointee will be expected to develop a research programme in that theme area.

These posts will attract an Academic National Training Number – NTN(a)

Duration and Outcome

This post will be appointed at ST3 (dualled with Medical Microbiology or Medical Virology) or IMT3/ST4 (dualled with General Internal Medicine) levels and is funded for three years. The principal aim of the ACF scheme is to allow academically gifted clinical trainees the opportunity for 25% protected research training and during that time to formulate and submit an application for an externally funded Research Training Fellowship (RTF) (e.g. Medical Research Council, Wellcome Trust, British Heart Foundation). If candidates are unsuccessful in obtaining funding for an RTF/PhD, they can transfer into non-ACF ST3+ posts and pursue full-time clinical sub-specialty training. It is anticipated that all successful ACFs completing RTFs would be in a strong position to compete for Clinical Lecturer posts following award of their higher research degree, as per the Integrated Academic Training programme.

NHS Organisation(s) in which training will take place

Addenbrooke's Hospital, Cambridge University Hospital NHS Foundation Trust

Research Institution(s) in which training will take place

University of Cambridge and Cambridge University Hospital NHS Foundation Trust.

Day release or block release for protected research time?

It is anticipated that the successful applicant will be available for research on a block basis (e.g. 3-9 months durations) comprising 25% WTE over three years. This will be subject to negotiation.

Description of the Research Component

Research can be undertaken with one of the many world-leading infectious disease research groups across Cambridge, including groups based in the Department of Medicine, Cambridge Institute for Medical Research (CIMR), Cambridge Institute of Therapeutic Immunology and

Infectious Disease (CITIID), MRC Laboratory of Molecular Biology (LMB), Department of Genetics, Department of Veterinary Medicine and Wellcome Sanger Institute. Examples of the breadth of research opportunities available are given below.

Virus–host interactions and immunity

Cambridge has major strengths in understanding virus–host interactions, antiviral immunity and viral pathogenesis. Professor Mark Wills studies immune responses to persistent viral infections, particularly human cytomegalovirus (HCMV). Professor Michael Weekes uses quantitative proteomic and functional genomic approaches to investigate innate immune sensing, host restriction and immune evasion by intracellular pathogens, particularly HCMV. Professor Paul Lehner uses functional genetic and proteomic technologies to investigate mechanisms of viral immune evasion and host defence, while Dr Nicholas Matheson studies virus–host interactions and the regulation of immunometabolism. Professor Ravi Gupta studies viral evolution, drug resistance and immune escape, particularly in HIV and respiratory viruses, and Professor Sam Wilson investigates how viruses including coronaviruses and influenza viruses adapt to humans and the molecular mechanisms that determine viral pathogenesis. At the MRC Laboratory of Molecular Biology, Professor Yorgo Modis investigates the molecular mechanisms by which cells sense and repress viruses and retroelements.

Bacterial infection, host susceptibility, pathogen genomics and AMR

Cambridge has particular strengths in bacterial pathogenesis, host susceptibility, pathogen genomics, genomic epidemiology and antimicrobial resistance. Dr Jeanne Salje combines genomics, bacterial physiology and cell biology to investigate how obligate intracellular bacteria survive within host cells and cause disease, with a particular focus on *Orientia tsutsugamushi*, the causative agent of scrub typhus. Professor Sergey Nejentsev investigates the genetic and functional mechanisms underlying susceptibility to infectious diseases, particularly tuberculosis, while Professor Lalita Ramakrishnan investigates the pathogenesis of tuberculosis and host susceptibility to mycobacterial infection using complementary human and zebrafish approaches.

Professor Ewan Harrison combines large-scale pathogen sequencing, molecular epidemiology, microbiome analysis and clinical data to investigate pathogen evolution and transmission, with particular interests in *Staphylococcus aureus* and respiratory infection. Dr Kate Baker combines microbial genomics, epidemiology and molecular microbiology to investigate bacterial pathogen evolution, transmission and antimicrobial resistance. Professor Julian Parkhill uses population genomic and phylogenetic approaches to study the emergence, transmission and evolution of bacterial pathogens, including their adaptation to host, antibiotic and vaccine selection pressures. At the Wellcome Sanger Institute, Professor Stephen Bentley uses large-scale bacterial genome sequencing to investigate the evolution, transmission and antimicrobial resistance of major bacterial pathogens.

Epidemiology, global health and parasitology

Cambridge offers opportunities spanning clinical and molecular epidemiology, global health, surveillance and the development and evaluation of interventions against infectious disease. Dr Lydia Drumright takes a multidisciplinary approach to infectious disease epidemiology, integrating classical and molecular epidemiology with clinical informatics, statistical and mathematical modelling, and behavioural and environmental sciences. Dr Florian Marks combines epidemiological and clinical research with global public health, with particular interests in vaccine-preventable diseases, antimicrobial resistance, vaccine effectiveness and the epidemiology and control of enteric infections. Professor Julian Rayner uses high-throughput approaches to understand interactions between *Plasmodium* parasites and human cells and to identify and prioritise new therapeutic and vaccine targets.

These examples are not exhaustive. Further research opportunities are available through [Cambridge Infectious Diseases](#) and its extensive network of investigators across the University, Cambridge University Hospitals, the Wellcome Sanger Institute and other partner organisations.

Description of the Clinical Training Component

The candidate will join the Combined Infection Training programme for the first two years. More information about the Combined Infection Programme can be found at: <https://heeoee.hee.nhs.uk/medicine/higher-specialty-programmes/infectious-diseases>. Periods of General Internal Medicine or Medical Microbiology or Medical Virology training will interdigitate with infection training.

The regional Infectious Diseases unit is located at Addenbrooke's Hospital, Cambridge, where we have close links with Medical Microbiology & Virology, and with Orthopaedics, Cardiology, Neurology, Haematology, Transplantation and Paediatrics. Infectious Diseases is a very interesting and varied specialty that encompasses all infections in adults and is not restricted to a single organ or system. Infections can present in many different ways in patients of all backgrounds, including community acquired infections, travel-related illness, extra-pulmonary or drug-resistant tuberculosis, infections in immunocompromised patients including HIV, and hospital-associated infections. The appointee will be exposed to a very varied and interesting portfolio of clinical experiences.

In Infectious Diseases, making the correct diagnosis often involves considerable detective skill in history taking, physical examination and interpretation of laboratory data. Treating serious infections in acutely ill patients is very satisfying because the vast majority of patients make an excellent recovery. The appointee will be expected to contribute to both outpatient and inpatient work with out-of-hours duties covering infection-related problems within the hospital and a telephone advice service for other hospitals and GPs in the region. If training is dualled with

Internal Medicine, the appointee will also be expected to contribute to the Internal Medicine Registrar rota. This will include night shifts, on-take cover and post-take ward rounds. There is also a rota for covering Ambulatory Care in the early evenings, and at weekends.

We co-ordinate a Regional HIV network with colleagues in Genito-Urinary Medicine for patients with HIV infection. We provide an Out-patient Parenteral Antibiotic Therapy (OPAT) service that treats many patients who have cellulitis or orthopaedic infections. We also provide a consultation service for complicated inpatients of other teams in which we are often the problem solvers for difficult-to-diagnose illnesses from hospitals across the east of England.

Further Information and Contacts

Clinical Academic Training Office (CATO) at the University of Cambridge

CATO Director Professor Alasdair Coles
Email: ajc1020@medschl.cam.ac.uk

ACF Programme Director Dr Virginia Newcombe
Email: vfjn2@cam.ac.uk

Academic Training Lead Professor Mike Weekes
Email: mpw1001@cam.ac.uk

Other Contacts

Training Programme Director Dr Elinor Moore
Email: elinor.moore@nhs.net

NHS England East of England 2-4 Victoria House, Capital Park, Fulbourn, Cambridge, CB21 5XB
Email: england.recruitment.eoe@nhs.net

NIHR <http://www.nihr.ac.uk/IAT>