NHS ENGLAND THAMES VALLEY
Academic Clinical Fellow in Emergency Medicine
ST1, ST2, ST3 or ST4
Research Area: Digital

Please note that there is only one post available either in Emergency Medicine (this post) or Sport and Exercise Medicine (ST3) or Infectious Diseases with Medical Microbiology (ST3). Shortlisted Candidates for these specialties will be interviewed by one panel and the best candidate appointed.

The area of research that the ACF is expected to work in is Digital. This is a condition of the post set by NIHR.

Background

Academic Clinical Fellowship (ACF) posts are awarded by the NIHR to University/NHS Trust/Deanery partnerships nationally through a formula mechanism, and by competition. These 3-year posts form part of the NIHR Integrated Training Pathway, further details of which can be found on the NIHR website http://www.nihr.ac.uk/IAT.

NHS England (NHSE) Thames Valley, in partnership with the University of Oxford, has established an Academic School, the Oxford University Clinical Academic Graduate School (OUCAGS) (https://www.oucags.ox.ac.uk/). All academic trainees become a member of the School and through it have access to a wide range of clinical academic training and funding opportunities as well as mentorship. All ACF posts are allocated an NTN (a).

The objectives of the ACF programme are to combine specialist training with research training and to identify an area of academic and clinical interest in which a doctoral fellowship application or postdoctoral funding application (if a doctorate is already held) is prepared. ACFs who are unsuccessful in securing doctoral or postdoctoral funding by the end of their ACF will return to clinical training in accordance with the NIHR Guidance for Recruitment and Appointment 2025.

Please note: in addition to the academic interviews, candidates will be required to attend and pass a clinical interview at the relevant level for the specialty in which they wish to train, unless they already hold an NTN in that specialty. Offers made will therefore be conditional upon meeting the required standard in the clinical interview.

About NHSE Thames Valley
We are the local NHSE office for Thames Valley covering Berkshire, Buckinghamshire and Oxfordshire. Our vision is to ensure the delivery of effective workforce planning and excellent education and training to develop a highly capable, flexible and motivated workforce that delivers improvements in health for the population of Thames Valley. NHSE Thames Valley is responsible for the training of around 2000 Foundation and Specialty trainees.

NHSE Thames Valley is a relatively small organisation with a defined geographical area which serves as a single unit of application. In the majority of cases successful candidates will be asked to preference their choice of location for either one or two years. Some programmes will require successful candidates to indicate a location and specialty. Future placements will usually be based on individual training and educational needs. **Please note that applications are to the NHSE Thames Valley as a whole. This may mean that you may be allocated to any geographic location within NHSE Thames Valley depending on training needs.**

2025 ACF Entry into ST1, ST2, ST3 or ST4

Outline of the ACF Post in Emergency Medicine
The ACF in Emergency Medicine has been established jointly with the Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences at the University of Oxford, with which the research component of the post will be affiliated. The NIHR Incubators have been established to support capacity building and multidisciplinary career development in priority areas where critical mass is low. Emergency Medicine has been identified by the NIHR as a national priority for investment. The NIHR Incubator for Emergency Care was launched in June 2019 after a proposal by the Royal College of Emergency Medicine (RCEM). It is a national portal established to coordinate academic training within the field of Emergency Care, and is led by RCEM, in partnership with the College of Paramedics and the National Ambulance Research Steering Group. Please see https://www.nihr.ac.uk/documents/emergency-care-incubator/25829.

A key goal of the Academic Clinical Fellowship (ACF) programme is to provide the applicant with appropriate research experience and training, to enable the successful application for an externally funded Clinical Training Fellowship, usually of 3-year duration and leading to a higher research degree or equivalent further postgraduate experience. If at the end of the ACF post, funding applications are not successful and clinical competencies are met, a place will be available on the clinical training programme.

The ACCS ACF would be expected to intercalate the majority of their 9 months academic time in blocks either before or during their ACCS ST3 year. The HST ACF would be expected to intercalate the majority of their 9 months academic time in blocks before their HST ST6 year. Details of the rotation will be tailored to the educational needs of the ACF within the constraints of the HETV rotation.

All ACFs are supported to undertake a Postgraduate Certificate in Health Research or three individual modules from the Evidence Based Healthcare Programme. ACFs are also expected to play an active part in the OUCAGS Forum by presenting their work.

Description of the research component of the programme and Emergency Medicine research opportunities

The area of research that the ACF is expected to work in is Digital. This is a condition of the post set by NIHR and their description of this area is:

> "The theme is looking to encourage training and research around the development and delivery of digital health and care interventions, digital research methodology and 'big data' analysis. Research could include the use of Artificial Intelligence and machine-learning approaches and emerging digital technologies such as non-contact sensors, smartphones, and computer tablets. This theme could also include research in data analytics and predictive analytics, precision medicine (genomics), and virtual & augmented reality. This theme is focused on delivering equitable, cost-effective digital health interventions to deliver patient benefits as well as the wider use of large data sets and how this is used in research, including digital analysis methods."

The successful applicant will be encouraged to develop their own research project which will compliment and build upon existing research activity within Thames Valley. Emergency Medicine research has rapidly expanded and developed in the Thames Valley Region in recent years, supported by the regional NIHR Trauma and Emergency Care (TEC) Group (formerly the NIHR Injuries and Emergencies Group). This organisation oversees regional recruitment to a large number of NIHR portfolio studies, with strong engagement and representation from all five hospital sites within the region. In addition, the Thames Valley Emergency Medicine Research Network (www.TaVERNresearch.org) is a new collaboration between the five regional Emergency Department research teams which aims to promote cross-site sharing of resources, information and opportunity, and to foster the development of early-stage and non-portfolio studies in the region. Current areas of research include pain, mental health, and evaluation of digital imaging technologies.

A number of organisational collaborations and affiliations will support and enhance this research post:

- The Oxford University Trauma and Emergency Care (OxTEC) group (led by Professor Matthew Costa, NIHR Lead for Trauma and Emergency Care) is sited within the Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences (NDORMS) and forms the academic locus of Emergency Medicine within the University of Oxford. The group currently employs around 40 researchers delivering a £30 million portfolio of clinical studies. It has a strong track record in clinical academic training with 3 of its first 4 ACFs having subsequently completed PhDs and been appointed to Clinical Lectureships. OxTEC recently appointed Dr David Metcalfe as Associate Professor in Emergency Medicine and has capital funding to support further appointments to senior posts in the emergency medicine from August 2024. Particular areas of overlap between OxTEC and the Digital theme include:

    o Development and validation of clinical prediction rules and risk calculators.
    o Use of routinely collected administrative datasets ("big data") to improve the configuration of services within emergency care.
    o Use of technology (such as electronic follow-up) to improve the efficiency of multi-centre randomised controlled trials of complex interventions.

- Emergency Medicine Research Oxford (EMROx) is a research group based in Oxford University Hospitals NHS Foundation Trust, which manages the delivery of over 40 studies across the emergency care spectrum, and is the trust centre for primary emergency medicine research with over £2 million secured in grant funding to date. Its portfolio includes a dedicated cross-specialty Artificial Intelligence and Digital Diagnostics research group with a particular focus on the use of AI-assisted imaging in acute healthcare settings. Led by Professor Alex Novak and Dr Sarim Ather, this group is closely aligned with the newly-established Thames Valley and Surrey Secure Data Environment (SDE), and hosts a number of clinical studies and trials involving this rapidly developing technology that are currently underway, including multiple industry collaborations:

  - A multicase multireader study to evaluate the use of AI-assisted image analysis on the ability of clincians to detect fractures on plain X-Ray (FRACT-AI)
  - A suite of projects based around the evaluation of the ability of clinicians and radiologists to interpret CT Head images aided by e-learning and AI-assisted image analysis (STEDI2, AI-REACT, ACCEPT-AI)
  - Multicase multireader studies to evaluate the use of AI-assisted image analysis in chest X-Ray interpretation (Lunit CXR, GE Critical Care Suite);
  - Development and clinical evaluation of an algorithm to predict the presence of Pulmonary Embolism using admission imaging, biochemical and clinical data (OPERA)
  - Evaluation of the utility of photon-counting CT in acute care pathways under the acute theme of the Acute Multidisciplinary Imaging and Intervention Centre (AMIIC)

- The Academic Centre for UrgenT and Emergency Care (ACUTECare), led by Professors Chris O'Callaghan and Dan Lasserson supports collaborative research across the acute care sector in Oxford (www.ouh.nhs.uk/acutecare-research) and sits with in the digital/multimorbidity divisions of the Oxford Biomedical Research Centre. Current projects include the evaluation of remote monitoring devices in community care settings. Collaborations with Professor James Fullerton (Clinical Pharmacology and Acute General Medicine) include evaluations of diagnostic technology in acute infection.

- Other collaborations within NHSE-TV include research led by Dr Ravi Shashikala at Stoke Mandeville Hospital (SMH, Buckinghamshire Healthcare NHS Trust) who has contributed actively to digital health-related Emergency Medicine research projects and is SMH lead for the STED12 study.

- Further cross specialty collaborations include NHS Blood and Transplant, led by Professor Simon Stanworth and Dr Nikki Curry, based around investigation of the use of blood transfusions in critically ill patients for example in trauma, critical care, and cardiac by-pass surgery, and the Wellcome Centre for Human Genetics based on

investigation into the genetic basis of immune responses in sepsis led by Professor Julian Knight (GAiNS2).

Description of the clinical component of the programme.
The posts of the rotation are approved for training by the GMC. The posts attract National Training Numbers and provide training towards a Certificate of Completion of Training (CCT).

The ACF post may be awarded to doctors starting at ST1, ST2, ST3 or ST4 level. Successful applicants must have the essential competences to enter training at an equivalent level to Acute Care Common Stem (ACCS) ST1, ST2, ST3 or Higher Specialist Training in Emergency Medicine. Details of these essential competences and qualifications are detailed in the person specifications which are available from NHSE (https://specialtytraining.hee.nhs.uk/Recruitment/Person-specifications).

The trainee's work will be monitored for satisfactory progress and subject to annual reviews in the form of ARCPs. Progression on the programme will be dependent upon these reviews.

The programme is designed to support academic clinical training alongside clinical core training in Emergency Medicine. It is anticipated that completion of this three-year programme will allow doctors to progress to Emergency Medicine Higher Specialist Training. At the end of the ACF post, as long as all the required clinical competences are met, the trainee will take up a place within the clinical training programme without the need for further competitive entry.

The Postgraduate Dean has confirmed that this post has the necessary educational and staffing approvals.

Hospitals in which training will take place
The programme is based in several different trusts throughout NHSE Thames Valley and so trainees may find themselves employed by any of the following Trusts and placed in any of the following hospitals:

Trust	**Hospitals and Locations**
Oxford University Hospitals NHS Foundation Trust	John Radcliffe Hospital, Oxford Horton Hospital, Banbury https://www.ouh.nhs.uk/hospitals/
The Royal Berkshire Hospital NHS Foundation Trust	Royal Berkshire Hospital, Reading http://www.royalberkshire.nhs.uk/
Milton Keynes University Hospital NHS Foundation Trust	Milton Keynes University Hospital, Milton Keynes http://www.mkuh.nhs.uk/
Frimley Health NHS Foundation Trust	Wexham Park Hospital, Slough https://www.fhft.nhs.uk/
Higher Specialty Training includes also:	Stoke Mandeville Hospital, Aylesbury https://www.buckshealthcare.nhs.uk/visiting-your-

Buckinghamshire Healthcare NHS Trust	hospitals/visiting/stoke-mandeville-hospital/

Rotations
Expected rotation arrangements for this programme are:

Acute Care Common Stem (ACCS):

- Acute Care Common Stem training aims to provide trainees with a broad base of training in Acute Medicine, Anaesthesia, Emergency Medicine and Intensive Care Medicine.
- Depending on prior experience, trainees will be attached to each of the four specialties for six months.
- The ST3 year will be spent in Emergency Medicine and Paediatric Emergency Medicine
- Trainees will be expected to rotate within the Deanery. Rotations depend on vacancies available and the training needs of the individual.

Higher Specialist Training (HST):

- Higher specialist training in emergency medicine involves 36 months of clinical training in Emergency Medicine, rotating annually to different hospitals in the region.

Please note: rotations may have to change in response to clinical need within a Trust.

Teaching
The primary aim of the three-year programme is to deliver ACF academic training alongside the EM curriculum and to provide trainees with the opportunities to gain the necessary competences.

The Deanery is committed to developing postgraduate training programmes as laid down by GMC, Colleges and Faculties and by COPMED - the Postgraduate Deans Network. At local level specialty tutors work with the EM head of school, TPDs and Directors of Medical Education in supervising these programmes. Trainees will be expected to take part in these programmes (including audit) and to attend meetings with their nominated educational supervisor.

All posts within the training programme are recognised for postgraduate training by the General Medical Council (GMC) in accordance with their standards for training.

Study leave is granted in accordance with Deanery/Trust policy and are subject to the maintenance of the service.

Curriculum

The clinical competencies required at the completion of this ACF post are described in the curriculum for Acute Care Common Stem, found on the ACCS UK website: https://www.accs.ac.uk/accs. For ST3 onwards please see the RCEM curriculum at Curriculum | RCEM.

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