NHS
Cambridge
University Hospitals
NHS Foundation Trust

UNIVERSITY OF CAMBRIDGE

Academic Clinical Fellowship

In

Vascular Surgery

(ST3)

One post

Entry: August 2027

Job title	Academic Clinical Fellow in Vascular Surgery
Post(s)	ACF-2027-14-007 – Response Mode Post 7 – Ophthalmology OR Urology OR Vascular Surgery

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

Duration and Outcome

This post will be appointed at ST3 level 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

The unit has an international reputation for its clinical and research work. It has an excellent reputation for its adoption of novel therapies and associated clinical research. There are very strong links with other areas of radiology and cardiovascular medicine and several joint research programmes. There are ample academic opportunities:

1. Affiliate Assistant Professor Jonathan Boyle has a strong track record in both basic science and clinical vascular surgical research. Current interests are related to quality improvement for critical limb ischaemia https://www.vsqip.org.uk/resources/quality-

improvement/vsgbi-pad-quality-improvement-programme/ , surgical outcomes related to the National Consultant Information Programme (NCIP) https://gettingitrightfirsttime.co.uk/associated_projects/ncip/ and the Outcome and Registries Programme with reference to device performance in aortic aneurysm repair.

2. The department has had a historical research interest in molecular imaging, developing novel risk-stratification criteria to identify high risk patients, conducting drug-response trials with the aid of in-house developed non-invasive imaging techniques. Currently, Magnetic Resonance Imaging has been the modality of choice to this effect in clinical studies; to unravel high resolution morphology of atherosclerotic tissues, it's underlying inflammation and associated biomechanics. The long-term collaboration with University Department of Radiology (neuroradiology section) has been pivotal in this regard. Excellent collaboration with an in-house team of biomechanical engineers allows development and utilisation of advanced biomechanical assessment tools useful in vascular surgery research which has great potential to solve complex problems such as issues with stent graft designing, understanding biomechanical reasons of stent graft failures and role of biomechanical forces in pathogenesis of vascular disease.

3. Clinical trials of international repute on management of venous disease are carried out by Mr Manjit Gohel, who is a world-leader in management and research into venous disease. Assessing efficacy of conventional therapies such as compression bandaging, injection foam sclerotherapy; and use of novel techniques such as radiofrequency ablation in management of patients with venous ulcers secondary to venous insufficiency is the primary focus of this theme (multicentre studies, published in NEJM). The use of thrombolytic treatment and subsequent venous stenting in patients with extreme case of deep venous thrombosis is an emerging research interest within this theme.

4. Established and experimental molecular imaging techniques have recently been used to conduct large prospective clinical and preclinical studies. Radionuclide imaging (using positron emission tomography) has been recently used for assessing inflammation of atherosclerosis in patients with lower limb peripheral arterial disease. The efficacy of drug eluting stents has also been recently investigated within the context of restenosis after angioplasty procedures, using near-infrared fluorescence intravascular imaging. Further work using multi-spectral optoacoustic imaging is currently being developed, in collaboration with the department of cardiovascular medicine. This research is led by Mr Mohammed Chowdhury (a recent NIHR academic clinical lecturer, and previous NIHR ACF in the department) with active collaborations at Harvard, MIT, and TUM.

5. Mr A Singh (NIHR ACL, previous NIHR ACF) has completed his PhD investigating the genetics of underlying aortopathy through a multi-omics approach. There are strong links with the Wellcome-MRC Stem Cell Institute with expertise using stem cells and genetic

engineering to understand aortopathy variants. This technology can be used as a basis for 3D disease models aimed at understanding biology and determining aortic wall failure risk. Furthermore, there is an opportunity to explore large-omics datatset in a bioinformatics orientated project.

The successful candidate would have the opportunity to be exposed to these varying facets of research and being actively involved with their programmes of choice. During the period of the ACF, the trainee would be able to develop an area of interest, along with close clinical and academic support, with the intent of submitting for longer-term grant funding to support their continued academic development.

Description of the Clinical Training Component

Addenbrooke's Hospital is the designated arterial centre with an overall catchment area of around 1.8m. The unit has high volume case load performing around 150 aortic interventions, and 100 carotid procedures, per annum making it one of the most active units in the country. Clinical rotations within Addenbrooke's would be organised to allow vascular and core surgical competencies to be achieved dependent on the successful applicant's needs.

There are 12 consultants, a dedicated vascular middle grade rota and a team of 2-3 Foundation years doctors. The post would form part of the core surgical trainee/middle grade emergency on-call rota depending on requirements for core and higher surgical training competencies.

There are strong, close, working relationships with Interventional Radiology, with a complex EVAR clinical service, and an established deep venous stenting programme. Dedicated multidisciplinary diabetic foot services are established in CUH. The unit is supported by an excellent, 6-scientist Vascular Studies Unit, and a large, dedicated Vascular Ward, and a hybrid operating theatre.

The hospital is at the heart of the Cambridge Biomedical Campus: http://cambridge-biomedical.com/. Cambridge is a thriving city with a world-famous university and excellent cultural and family attractions.

Further Information and Contacts

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

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