

Job Description for NIHR Academic Clinical Fellowship in Vascular Surgery (Digital) < ST1-ST3>

1. Job Title.

NIHR Academic Clinical Fellowship in Vascular Surgery (Digital)

2. Duration of post.

3 years

3. Research institutions in which training will take place

King's College London

4. Timetabling of clinical and research time

The post is three years long with nine months of protected research time integrated into the clinical rotation timetable. Integrated medical training rotations are the same as for non-academic positions, as are the rotations in vascular surgery. Research time is usually split into three-month blocks or a two-month block, four month block and three-month block.

5. Description of research component of programme

Research Theme – Digital

The Digital research theme supports clinically led research at the interface of vascular surgery, health data science, medical imaging and biomedical engineering. The successful ACF will carry out research aligned with their interests and training needs, addressing areas of unmet clinical need for patients with aortic aneurysms and peripheral arterial disease through routinely collected health data, imaging or computational methods. Projects will be designed to be feasible within the protected academic time and to provide preliminary data and methodological training for a subsequent doctoral fellowship application.

The ACF will receive multidisciplinary supervision from clinicians, data scientists, imaging researchers, engineers and methodologists. Patient and public involvement and engagement will inform project development, interpretation and plans for clinical translation.

Research areas

Potential areas of research include:

- Analysis of longitudinal electronic health records and linked clinical and imaging data to model disease trajectory and personalise risk assessment in vascular conditions including aortic aneurysms and peripheral arterial disease. This work will involve application of artificial intelligence and natural language processing methods in vascular research.
- Quantitative and radiomics based AI assisted analysis of vascular imaging to improve disease characterisation and assessment of treatment.
- Patient specific computational modelling and digital twin approaches relevant to vascular disease and intervention.
- Co-design and evaluation of digital tools for use by patients, clinicians and healthcare services.

The Digital research theme is embedded within a mature research environment and is currently supported by over £4 million of active competitive research funding, including a £1.1 million BHF Programme Grant, a BHF Clinical Research Training Fellowship in digital twin modelling and a King's Health Partners funded

Cardiovascular Biobank. The ACF will benefit from collaborations with the AI Centre, PharosAI, Cogstack and international partners including VASCUL-AID. The precise project will be agreed with the successful candidate and shaped by their experience, academic interests and intended longer term research trajectory.

Suitability of partnership

Our environment provides trainees with excellent opportunities to learn core digital research skills, apply them with PPI/E partners and other end users, pathways to clinical uptake and development of scalable digital products. Our evolving training capability includes:

- [The Innovation Scholars Programme](#): flexible CPD accredited training in big data and AI for healthcare professionals. > 7000 users have engaged in the last year.
- [King's Health Partners Digital Health Academy](#): dedicated digital health training in co-design, entrepreneurship, value-driven innovation and healthcare software development
- Centres for Doctoral Training include [Data Driven Health](#), [Digital Twins for Healthcare](#) and [Safe & Trusted AI](#)

IATs benefit from King's new and established digital infrastructure that includes: the [KHP Digital Health Hub](#) an accessible national multi-disciplinary resource supporting training, co-creation, translation and the acceleration of digital health technologies (UKRI, £2.6M, 2023), [PharosAI](#), a university/NHS joint-venture providing an end-to-end cancer AI innovation and product development ecosystem (DSIT Research Ventures Catalyst, £18.9M, 2025); the [AI Centre for Value Based Healthcare](#) (AI4VBH) (InnovateUK/DHSC); [NIHR Biomedical Research Centre at the Maudsley BRC](#) including the [Centre for Translational Informatics](#); [DATAMIND](#) the HDRUK Hub for Mental Health Informatics Research; our MedTech venture builder the [London Institute for Healthcare Engineering](#) (UKRPIF). King's [Institute for AI](#), connects health to research into the safe and trusted application of AI. [The Applied Informatics](#) theme (NIHR ARC SL) evaluates adoption of digital innovations in health and social care, and PPI/E engagement through groups such as the Next Generation Medical Imaging PPI Group.

Digital is a cross-cutting theme for many prior trainees. ACFs (35) have produced >960 number of scientific outputs, progressed to PhD (21; 9 at King's) and of these 14 have moved into academic roles. 86% remain research active and secured competitive fellowships totalling £12.3M including MRC, BHF and Wellcome.

CLs (22 in total, 14 at King's, 100% research active) include Lead Computational Oncology Group, Imperial (CL 2013); NIHR Clinician Scientist (£1.4M funding, CL 2013); and a Clinical SL (CL 2019), with funding awards including via CRUK City of London Centre and BHF Centre of Research Excellence.

Innovative/interdisciplinary approaches

King's is a leader in delivering innovative ways of working to deliver at scale across the critical NHS/university/commercial sector interface, exemplified by AI4VBH (10 NHS, 4 university and 19 commercial partners), LIHE, KHP Digital Health Hub and PharosAI. King's has delivered innovative research tools including the Clinical Record Interactive Search ([CRIS](#)) and the [RADAR-base](#) mHealth platform. The open-source [FLIP/AIDE](#) platforms developed by AI4VBH that underpin the safe delivery of AI research at scale in multiple NHS partner Trusts, and the development of products that overcome variations in local practice and can be deployed widely in the NHS. Our AI-driven evidence synthesis expertise underpins the SOLACE-AI programme (£4.1m, Wellcome, Advancing Evidence Synthesis for Climate and Health), and a growing network of digital spinouts includes the [CogStack](#) clinical data retrieval and extraction platform and [Hypervision Surgical](#), developing hyperspectral- imaging-guided surgery tools.

6. Description of clinical training component of programme

Surgery is based at Guy's and St Thomas' NHS Trust which is part of the London Vascular higher surgical training rotation and provided the ACF passes ARCP, they will continue into specialist training within this

region. Examples of Core surgical posts that the successful candidate will rotate through will include vascular surgery, general surgery and cardiothoracic surgery

Clinical Milestones: The ACF will be exposed to general surgical practice with some sub-specialty exposure, which may be more than one for the purposes of the clinical experience. They will be attached to consultant surgeons / senior lecturers at the sites involved in the programme and will be expected to maintain a clinical competency to the same level as an equivalent clinical trainee and also undergo the same appraisal and review processes. ACFs will need to keep a procedural and WBA log book in electronic format and a diary of day to day clinical activities for review by supervisors. The assessment of the clinical goals of trainees will be competency based and equivalent to non-academic trainees. Appraisal of the trainee will be done jointly by both the academic and clinical supervisors. This will give the trainee a holistic and comprehensive overview and feedback, as well as help ensure support and training is appropriately tailored to the individual's needs.

Mentoring: There is a mentorship scheme for all Academics (who all attend a King's College London course for mentors and trainees). ACFs will also join this scheme and be assigned a senior clinical academic and an additional mentor within the division of surgery, who may be on a different campus, to provide pastoral and intellectual support. We feel the role of dual mentorship is important in the support of the academic and the increasing diversity of ideas and needs.

7. Academic Programme Director name

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Academic Supervisor

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8. Clinical Programme Director name

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9. Programme contact for further information (phone or email)

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10. NHSE contact:

Specialty Team <https://lasepgmdesupport.hee.nhs.uk/support/home>

Recruitment Enquiries - <https://lasepgmdesupport.hee.nhs.uk/support/home>

11. Useful websites for further information [IAT Guide](#) | [NIHR](#)

<https://www.nihr.ac.uk/explore-nihr/academy-programmes/integrated-academic-training.htm>

12. Confirmation that the post attracts an NTN (A)

Yes

This job description was prepared on 31-July-2026