

Academic Clinical Fellowship 2027

Description of ACF Programme: Clinical Radiology
Title: Clinical Radiology Duration: 3 years
Lead NHS Hospital/Trust and contact details:
University Hospitals Southampton NHS Foundation Trust Department of Radiology Southampton General Hospital Southampton SO16 6YD For enquiries about the post please contact: Mr Paul Chapman Radiology Training Programme Manager Tel 023 8077 7222 paul.chapman@uhs.nhs.uk
Research Institution(s) in which training will take place:
University of Southampton Cancer Sciences School University Road Southampton SO17 1BJ Bournemouth University Institute of Medical Imaging and Visualisation Bournemouth Gateway Building St Pauls Lane

Bournemouth BH8 8AJ

Arrangements for protected research time:

The ACF post will encompass 27 months of Clinical Radiology training and 9 months of protected research time. Clinical duties will be back-filled. The job description will ensure protected research time for the ACF. The exact arrangement for protected research time, in terms of weekly split, and its timing, will be arranged between the trainee, Programme Director, Educational Supervisor and Academic Supervisors, and will depend on clinical experience of the trainee, service needs, trainee needs, timing and full/part-time equivalent of clinical cover.

Research Objectives:

1. To undertake the equivalent of 2 years 3 months full time training in Clinical Radiology in accredited posts on the Wessex Deanery Radiology Rotation as well as 9 months research over a 3 year period.
2. To undertake generic research methods training through a programme run by the Faculty of Medicine's NIHR Postgraduate School.
3. To gain relevant training and experience in research design, methods, data analysis and systematic review, and in the methods specific to clinical artificial intelligence, including imaging data curation, model development, internal and external validation, explainability and prospective clinical evaluation.
4. To lead a research project initially generating preliminary data for development of a proposal for an externally funded Clinical Research Fellowship (Doctoral Training)
5. To submit such an application for a Clinical Research Fellowship (Doctoral Training) in national competition such as the Medical Research Council, the Wellcome Trust, the National Institute for Health and Care Research, Cancer Research UK or the Engineering and Physical Sciences Research Council.
6. To submit proposals for externally funded research projects.
7. To present research in national /international conferences.
8. To publish research in peer reviewed high impact radiology journals

Description of research component of programme (up to 500 words):

The academic clinical fellow (ACF) post-holder will be a Specialty Trainee in the Wessex School of Radiology and will conduct research with the Clinical Radiology teams at University Hospital Southampton (UHS) in collaboration with academic departments at the University of Southampton and Bournemouth University. It is expected the ACF will focus on cancer imaging and intervention. For example, we are investigating how we can improve the performance and reporting of ultrasound and MRI for liver cancer detection.

There is also scope to develop a project in artificial intelligence applied to radiology and interventional radiology, for example in image-based prediction of outcome or in the evaluation of AI tools within the clinical workflow, depending on the trainee's interests and aptitude. The ACF will also have the opportunity to work on other existing research programmes within the host organisations, including the Innovation for Translation Research Group, while developing their own project(s) and gaining a broad exposure to core research skills.

University Hospitals Southampton is a major UK teaching hospital and a tertiary cancer treatment and surgical centre for the region. The University of Southampton (UoS) Cancer Sciences School is co-located on the same site as Southampton General Hospital, enabling excellent clinical and academic collaboration. UoS hosts the [Cancer Research UK \(CRUK\) Centre](#), the [National Institute for Health Research \(NIHR\) Experimental Cancer Medicine Centre](#), the [Southampton Clinical Trials Unit](#), the [NIHR Clinical Research Facility](#), and the [Wessex Investigational Science Hub](#).

The Institute of Medical Imaging and Visualisation (IMIV) at Bournemouth University hosts a state-of-the art imaging 3T MRI facility and ultrasound suite and supports several areas of research, and in particular using MRI for cancer detection.

Research imaging support will be available from the Southampton Imaging and Radiology Research Group and the IMIV. The Southampton Imaging and Radiology Research Group will provide MRI physics and quantitative analysis support and hosts the recently implemented XNAT image-sharing server. Methodological and computational supervision will be available through the University of Southampton School of Electronics and Computer Science, giving access to expertise in machine learning, computer vision and radiomics. The ACF post-holder will have the opportunity to establish imaging research collaborations across the Wessex imaging network.

The trainee will work closely with their academic supervisor to assess and direct their learning needs. They will have the opportunity to attend a variety of courses to gain core research skills.

Description of clinical component of programme (up to 500 words):

Clinical training will take place within the Wessex Deanery Clinical Radiology Training Programme.

The experience offered will cover the training needs of future consultants in all aspects of Radiology as well as academic career development. The post will be spent in a combination of clinical placements across Trusts in the Wessex Deanery including:

Queen Alexandra Hospital, Portsmouth

Royal Bournemouth and Christchurch Hospitals

Poole General Hospital

Salisbury District Hospital

Basingstoke and North Hampshire Hospital

Royal Hampshire County Hospital, Winchester

Dorset County Hospital, Dorchester

University Hospital Southampton

Lymington Hospital

The intended learning outcome of the post is to achieve the standards required by the GMC and RCR for progression of training in Radiology. Clinical Radiology training follows the competency based 2021 RCR curriculum, with a programme length of five years for CCT in Clinical Radiology or 6 years for CCT in Clinical Radiology with Interventional Radiology subspecialisation.

Specifically, the clinical training programme will encompass:

- the diagnostic techniques required to become a technically competent general clinical radiologist and clinical principles in line with the *Royal College of Radiologists Clinical Radiology Specialty Training Curriculum*.
- opportunities to experience the range of special interest areas in Radiology, including interventional radiology and interventional oncology, with further training in these areas depending on trainee preference and aptitude.
- training in the generic professional behaviours including communication and teaching skills necessary for effective practice
- the acquisition of life-long habits of reading, literature searches, consultation with colleagues and attendance at scientific meetings, that are essential for continuing professional development (CPD)
- experience of the practice of clinical governance, quality improvement and audit (specialist and multidisciplinary) through evaluation of practice against the standards of evidence-based medicine, which underpin patient safety and good radiology practice.

The ACF will have a named Educational Supervisor during their training. The supervisor will hold regular appraisals to review clinical progress and prepare a plan for the subsequent period. Annual Review of Competence Progression (ARCP) will be undertaken by the deanery towards the end of each year of training, as outlined in *A Guide to Specialty Training in the UK* (Gold Guide).

Specific support provided to trainee

The Academic Supervisors will be Dr Ganesh Vigneswaran and Dr Jamie Franklin, who will work with clinicians at UHS and academics at UoS and BU to develop a programme of research and research training.

Dr Franklin and Dr Vigneswaran will work in close collaboration with the Training Programme Directors and Head of School, and the Southampton Clinical Academic Training Scheme to ensure the trainee has the best experience possible as well as mentorship and support throughout.

- Experience in a Consultant-led clinical radiology service with placements in secondary and tertiary settings.
- Excellent Workplace, Clinical, Educational and Academic Supervision.
- Access to computer science supervision and to the ITRG research computing environment, with support for imaging data curation, model development and information governance.
- A programme of regular Radiology teaching is delivered to radiology registrars across Thames Valley, KSS and Wessex Deaneries by the South East Imaging Training Academy.
- Special Interest Training and Career Development from ST4 onwards aligned to the trainee's interests and aptitude. Acquisition of clinical competency will always be central to these attachments.
- Study leave.
- Training in setting up new studies and/or clinical trials, governance and management.

Milestones and timing of achievement of academic and clinical competencies

The acquisition of clinical competencies and progression through the ARCP will not be different from that of a trainee in a non-academic post during the clinical component of the ACF.

With respect to academic milestones and timing of achievement, these are broad guidelines since exact timing of achievement will depend on how time is split between clinical and research time (i.e. one block, several blocks or full integrated time):

Year 1	
1.	Identification of topic of interest for research project(s), additional research supervisors if necessary and initial literature review.
2.	Identification of specific learning needs for the project and appropriate courses.
3.	Attendance at appropriate NIHR Training Programme courses and meetings.
4.	Identification of relevant existing retrospective imaging and clinical datasets, and initiation of the associated information governance and data access approvals.

Year 2	
1.	Academic competencies in utilising current software for database building, statistical analyses and reference management; understanding principles of data handling, confidentiality and sharing for pilot study data collection; processing, cleaning & analysis of data in collaboration with existing studies; submitting applications within the research governance framework.
2.	Obtaining ethical committee and NHS Research & Development proposals for exploratory project if required.
3.	Sample and image collection, including annotation and linkage of imaging data to clinical outcomes.
4.	Model development and internal validation, with attention to explainability and to accepted reporting standards for prediction models and clinical AI.
5.	Attendance at relevant internal and external training courses.
6.	Identification of potential funding targets.
Year 3	
1.	External validation where feasible, data analysis, and publication and presentation of research.
2.	Application for Clinical Research Fellowship (Doctoral Training).
How post links in to the NIHR approved Research Training Programme at your locality:	
Mandated attendance at NIHR training programme courses provided by the Faculty covering aspects such as trial design, GCP, statistics, grant and paper/abstract writing, time management etc. Attendance and presentation at host Academic Trainees meetings.	
Trainee centredness:	
The trainee will have a personalised academic training plan that articulates with the clinical training plan, facilitated by regular liaison between the trainee, Academic Supervisor, Educational Supervisor and Programme Director. Academic representation on ARCP panels will be ensured. The trainee will meet regularly with their Academic Supervisor to ensure that goals are being met in addition to regular Educational Supervisors meetings. The trainee will be encouraged to develop their own project within the academic group's research programme, helped by close supervision. Integration of subspecialist clinical skills and research topic will be encouraged and facilitated.	
Quality assurance of the programme:	

- Regular review from Academic Supervisor, reporting to the Head of the Unit and Academic Training Lead for University.
- Feedback from Clinical and Educational supervisors
- Successful transition at ARCP and feedback from Training Programme Director
- Completion of NIHR courses and course work through accredited modules where applicable
- Academic outputs of trainee including presentations, posters and papers
- Submission of application for a Clinical Research Fellowship (Doctoral Training)
- Success in the Clinical Research Fellowship (Doctoral Training) application

Mentoring Arrangements:

The trainee will have initial academic and induction and orientation meetings where goals for the ACF will be discussed.

Subsequently, there will be at least monthly meetings with academic supervisors to provide ongoing supervision and feedback, with 6-monthly progress reviews which will also feed into the annual clinical ARCP.

An independent mentor will be appointed with whom the trainee will be able to discuss any issues of supervision/primary mentorship and the overall quality of the programme.

Academic Lead (University) for the IAT Programme:

Name: Professor Elaine Dennison

Position: Professor of Professor of Musculoskeletal Epidemiology

Address:

MRC Lifecourse Epidemiology Unit

Southampton University

Southampton General Hospital

Southampton SO16 6YD

UK

Telephone: 02380777624

Email: emd@mrc.soton.ac.uk

Academic Supervisors (University) Details:

Dr Ganesh Vigneswaran MBBS BSc PhD FRCR (IR)

Associate Professor of Interventional Radiology and Medical AI

University of Southampton

AI Lead, Innovation for Translation Research Group (ITRG)

Email: g.vigneswaran@soton.ac.uk

Dr Jamie Franklin

Associate Professor and Head of IMIV, Bournemouth University

Tel: 01202964104

Email: jfranklin@bournemouth.ac.uk

Education Supervisor (Trust) Details:

Wessex School of Radiology (TBC)

Clinical Supervisor(s) Details:

Will vary throughout training depending on clinical attachments

Deanery Programme Training Director Details:

Dr Georgina Adam

Consultant Radiologist

Department of Radiology

Email: georgina.adam@uhs.nhs.uk

Deanery Programme Manager Details:

Ysabel Hensford – Education Programme Manager

england.radiology.wx@nhs.net

Confirmation that ACF posts attract an NTN(a):

This post will attract an NTN