

2-YEAR SPECIALISED FOUNDATION PROGRAMMES AT City St George's, University of London (CSG)

1. INTRODUCTION

There are 12 programme themes with each theme offering a place for 1 resident. A total of 12 programmes is available.

Successful applicants are recruited to a specific 4-month academic F2 post e.g., Academic Renal Medicine. This post sits within a generic 2-year foundation programme with 5 other clinical placements, balanced to enable acquisition of foundation competencies. Applicants should note that clinical placements are subject to change dependent on service need and provisional until confirmed by the employing Trust.

2. DETAILS OF TRAINING PROGRAMMES

Programme Reference	Programme Theme	Based at
2627/SGUL/01	Renal Medicine	St George's Hospital
2627/SGUL/02	Primary Care	St George's Hospital
2627/SGUL/03	Rheumatology	St George's Hospital
2627/SGUL/04	Critical Care Medicine	St George's Hospital
2627/SGUL/05	Paediatric Orthopaedics	St George's Hospital
2627/SGUL/06	Neurosurgery	St George's Hospital
2627/SGUL/07	Paediatrics	St George's Hospital
2627/SGUL/08	Emergency Medicine	St George's Hospital
2627/SGUL/09	Vascular Surgery	St George's Hospital
2627/SGUL/10	Cardiology	St George's Hospital
2627/SGUL/11	Infectious Diseases	St George's Hospital
2627/SGUL/12	Clinical Pharmacology	St George's Hospital

3. POSTS

Information regarding specific programmes is provisional and may be subject to change. Precise details of rotations are subject to service delivery requirements of the NHS and subsequent confirmation by the employing Trust.

Programme – Renal Medicine – based at St George’s Hospital

Reference: 2627/SGUL/01

<i>Type of programme</i>	
Research	
<i>Employing trust:</i>	<i>Academic placement based at:</i>
St George's University Hospital NHS Foundation Trust	City St George's, University of London
<i>Brief outline of department</i>	
The Renal and Transplantation Unit at St George's Hospital provides tertiary renal care for Southwest London and Surrey, supported by a team of 9 nephrologists and 8 renal transplant surgeons. The unit delivers dialysis to over 420 patients and performs approximately 150 kidney transplants annually. It leads several innovative interdisciplinary services, including weekly kidney–heart failure cardio-renal-metabolic clinics. Within the Department of Medicine at City St George's, University of London, two renal academics contribute to research and education. Professor Debasish Banerjee, Head of Department, leads clinical trials and research on cardiovascular complications in chronic kidney disease, in collaboration with Dr Anderson (President, British Heart Failure Society) and colleagues in Cardiology. Statistical support is provided by Dr Irina Chis Ster. His research is funded by the British Heart Foundation, NIHR, and other charitable organisations. Dr Vasantha Muthuppalaniappan focuses on medical education and clinical research and serves as the academic lead for the second year of the MBBS programme.	
<i>Structure of academic project/what expected</i>	
The specialised F2 resident in Renal Medicine will undertake a 4-month placement under the supervision of Professor Debasish Banerjee, focusing on clinical research into cardiovascular complications of chronic kidney disease. Training will include patient-based research and exposure to vascular imaging techniques such as brachial artery flow-mediated dilatation, carotid intima-media thickness, carotid-femoral pulse wave velocity, ECG monitoring, and laboratory assessments. The programme emphasises regulatory compliance and the conduct of clinical research. Previous residents have achieved first-author publications in peer-reviewed journals, presented at national and international conferences, and secured research training grants and NIHR Integrated Academic Training posts in renal medicine. Opportunities are available for clinical audit or descriptive research projects, and residents are encouraged to participate in teaching. They may also enrol in the Postgraduate Certificate in Healthcare Research Skills and Methods at City St George's, University of London.	
<i>Clinical commitments during academic placement</i>	
There will be no routine service commitment but there will be involvement in patient care through clinical studies.	

Departmental academic teaching programme (if applicable)

Weekly Academic Meeting with opportunity to present research data. Residents will also have opportunities to teach medical students.

Academic Lead:

Professor Debasish Banerjee dbanerje@citystgeorges.ac.uk

Programme – Primary Care – based at St George’s Hospital

Reference: 2627/SGUL/02

Type of programme

Clinical and Educational Primary Care Research

Employing trust:

St George's University Hospital NHS Foundation Trust

Academic placement based at:

School of Health and Medical Sciences,
Population Health Research Institute/
Primary Care Education Section
City St George’s, University of London.
Public Health Research Institute/Institute
of Medical and Biomedical Education
City St George’s, University of London.

Brief outline of department

Appointees will be hosted within the Population Health Research Institute PHRI (sgul.ac.uk) with supervision jointly from both PHRI and Division of Medical Education Primary Care Education Section - PCES). PHRI produces highly rated clinical research focusing on primary care epidemiology, cardiovascular disease, type 2 diabetes, women and children’s health, environmental epidemiology and primary care behaviour change trials. This thriving, friendly, multidisciplinary institute runs a busy research programme with 12 professors, seven academic clinical GP fellows, an academic clinical lecturer in primary care, MD/PhD students, backed by social scientists, epidemiologists, statisticians, psychologists, and academic physiotherapists. PHRI has strong expertise in primary care data analyses, complex behavioural interventions, randomised controlled trials, cohort studies, systematic reviews, co-design, health services research, preventive medicine. and ethnic and social inequalities. Past academic residents have been involved with some of these ongoing research projects or collaborated with the [Institute of Infection and Immunity](#) on the intersection of primary care and migrant health.

Clinical academics in the 17 strong [Primary Care Education Section \(PCES\)](#) have a breadth of research skills and expertise in clinical education, beyond primary care. Eliot Rees co-edited a [clinical education research methods textbook](#) and offers guidance in project design, delivery, and dissemination. We have expertise in evidence synthesis including systematic reviews ([Guckian et al. 2021](#), [Grafton-Clarke et al. 2022](#), [Gordon et al. 2020](#)), meta-analyses ([Rees et al. 2016](#)), scoping reviews ([Daniel et al. 2021](#)) and realist syntheses ([Owen et al. 2025](#), [Al-Bedaery 2022](#)). We have strong expertise in qualitative research methods ([Eastwood et al. 2023](#), [Rees et al. 2022](#), [Ibison 2020](#)), evaluation ([Al-Bedaery et al. 2022](#)), designing large scale surveys ([Rees et al. 2022](#) , [Harrison et al. 2022](#)), mixed-methods studies

([Baig et al. 2024](#), [Ibison 2020](#)), and big data research in clinical education ([Rees et al. 2016](#)).

Current clinical educational research areas align with NHSE and NIHR research priorities: healthcare costs ([Ibison and Driscoll](#)) educational policy in NHS ([Ibison and Al-Bedaery](#)) inclusive clinical teaching ([Al-Bedaery](#)), learning in the workplace ([Al-Bedaery](#), [Rees](#)); patient safety ([Driscoll](#)), primary care simulation ([Driscoll](#)), workforce ([Ibison](#), [Rees](#)); remote consulting ([Rees](#), [Ibison](#), [Al-Bedaery](#)); assessment ([Rees](#)) and widening participation ([Rees](#)).

All appointees are members of George's Academic Training ([St George's Academic Training \(GAT\) \(sgul.ac.uk\)](#)) where they can network and learn with other trainees. SGUL has an annual Research Conference and an annual Education conference at which appointees are encouraged to present. They are also encouraged to present at the [Society for Academic Primary Care](#) local and national conferences, or conferences relevant to research interests.

Structure of academic project / what expected

The Primary Care Education Section (PCES) and Population Health Research Institute (PHRI) have long experience of supervising academic/Special Foundation Programme (SFP) residents. All residents have an academic skill needs assessment at the start of SFP Y1. They are encouraged to develop educational and clinical areas of interest during SFP Y1 year and will be linked with relevant research supervisor(s) for research projects. Some residents have pre-existing academic projects which they wish to pursue which are co-supported by PCES/PHRI. Others are offered academic projects related to their career interests and/or the existing research activities in PHRI and PCES. Residents have regular meetings with their academic supervisor and continuing support in completing, presenting and publishing their projects. There is also the opportunity to register for the CSG Postgraduate Certificate in Healthcare Research Skills and Methods or for a Postgraduate Certificate in Education. There are innovative and interesting teaching opportunities for SFP Yr. 1 and 2.

PHRI/PCES have three primary care professors, a reader, senior lecturer and NIHR funded academic clinical lecturer with a strong track record in supporting residents applying successfully for Academic Clinical Fellowships, Clinical Teaching Fellows and NIHR Pre-doctoral Fellowships (2021, 2023, 2024 and 2025) and MDs.

Other recent success stories for FY2s supervised by our group include publishing first author educational articles in the British Medical Journal, publishing a systematic review and metanalysis (Videoconferencing to deliver genetics services: a systematic review of telegenetics in light of the COVID-19 pandemic - PubMed ([nih.gov](#))). Past residents have also written handbooks on research for undergraduates, performed pilot studies, answered research questions using survey methodologies, and quality improvement projects.

Clinical commitments during academic placements

Special Foundation Programme Y2s spend 40% of their week working under supervision in a GP surgery. They are encouraged to develop a quality improvement project during the clinical placement.

Departmental academic teaching programme meetings if applicable

Appointees are invited to monthly academic GP meetings as well as to weekly PHRI research seminars throughout the programme. They will be also invited to educational innovation and research meetings in the School of Health and Medical Sciences.

Academic lead

Dr Imran Rafi irafi@sgul.ac.uk

Programme – Rheumatology – based at St George’s Hospital

Reference: 2627/SGUL/03

Type of programme	
Research	
Employing trust:	Academic placement based at:
St George's University Hospital NHS Foundation Trust	City St George's, University of London
Brief outline of department	
The Rheumatology Unit at St George's is a tertiary centre for Rheumatology care, which delivers care provided by 8 Rheumatologists, 4 Musculoskeletal Radiologists, an infusion suite which provides regional services for delivery of biologic drugs, a dedicated Pharmacist, a regional centre for DEXA scans, including 2 dedicated DEXA scanners, 3 new 3 Tesla MRI scanners housed next to our clinical facility: the Hotung Centre for Musculoskeletal Diseases, which is a leading regional centre for Rheumatology care.	
There are broad ranging clinical research interests in the department, including studies in rheumatoid arthritis, novel biologic trials, pain research, osteoarthritis and bone research.	
The academic unit is led by Professor Nidhi Sofat, Professor of Rheumatology. Prof Sofat is supported by research staff including Professor of Imaging, Professor Franklyn Howe, research assistants, academic clinical fellows, PhD students and research lecturers. Current research projects include clinical trials in rheumatoid arthritis (BIORA-PAIN), osteoarthritis (PAPO), Early Biomarkers for Arthritis Pain (ARPAIN) and commercial trials with companies including Eli Lilly, Bristol Myers Squibb and Pfizer. There is also the potential to develop projects in SLE (Dr Kaul), metabolic bone disease (Dr Moss), psoriatic arthritis (Dr Chaabo) and early inflammatory arthritis (Dr Ahmed).	

Structure of academic project/what expected
The Specialised F2 resident in Rheumatology will spend 4 months working with Professor Nidhi Sofat on projects assessing “how inflammation correlates with pain in rheumatic diseases”. The resident will be involved in clinical research with patients. The project may involve investigating patients, using ultrasound and MRI techniques, pain assessment using patient-related outcome measures and quantitative sensory testing, and laboratory assessments. Training and experience in the regulatory aspects and conduct of clinical research will be provided. Previous residents have been successful with peer reviewed first author publications, international and national conference presentations, research training grants and NIHR IAT posts in rheumatology. There will be opportunities to undertake a descriptive clinical project/audit. Involvement in teaching is encouraged and the resident will be expected to enrol on the PGCert in Healthcare Research Skills and Methods at City St. George’s, University of London.
Clinical commitments during academic placement
There will be no routine service commitment but there will be involvement in patient care through clinical studies.
Departmental academic teaching programme (if applicable)
Weekly Academic Meeting with opportunity to present research data
Academic Lead:
Professor Nidhi Sofat nsosat@citystgeorges.ac.uk

Programme – Critical Care – based at St George’s Hospital

Reference: 2627/SGUL/04

<i>Type of programme</i>	
Research	
<i>Employing trust:</i> St George's University Hospital NHS Foundation Trust	<i>Academic placement based at:</i> City St George’s University of London
<i>Brief outline of department</i>	
The Adult Critical Care directorate currently provides 60, level 2 and 3 beds spread across three separate units, General (GICU), Cardiothoracic (CTICU) and Neuro (NICU) intensive care. We provide a diverse range of specialist services, including major trauma, advanced cardiovascular support (IMPELLA) and peri-operative support following major neuro-, cardio-thoracic and general surgery. We have a large research group who support NIHR portfolio studies, and a number of consultants are jointly appointed clinical academics with their own research programs. The directorate has a track record of developing clinical academic	

careers with a number of consultants appointed following PhD training at St George's.

Structure of academic project/what expected

It is our anticipation that the specialised foundation programme resident will work with clinical academics in the department during foundation year one to design a bespoke research experience that will suit their research interests and learning needs. This may involve joining ongoing research activity or participating in the design of their own work.

Current research projects within the department include:

- Understanding the effect of critical illness on drug pharmacokinetics (in-vivo and in-vitro)
- Describing the clearance of drugs during extra-corporeal support (renal replacement therapy and IMPELLA)
- Modelling and simulation of drug dosing strategies during critical illness
- Use of large datasets to investigate outcomes following critical care
- Haemodynamic profiling in cardiogenic shock and response to treatment. Investigating echocardiographic and pulmonary artery catheter markers and their impact on treatment

Learning and development opportunities:

Again, these are expected to be tailored to the individual resident. However, opportunities include:

- Data analytical skills, including coding in R (or preferred language)
- Good clinical practice, including research governance, consent and data handling and security
- Access to the NIHR associate principal investigator scheme for one of our ongoing portfolio studies
- Laboratory or clinical research skills as determined by the research project
- Advanced cardiovascular physiology knowledge and basic practical skills in echocardiography
- Formal training opportunities such as post-graduate certificate in research methods and/or statistics are available and encouraged.

We have a team of academics who will support the appointee, including consultant clinical-academics, research trainees and associates. We have strong collaborations with a number of research groups, in particular infection and clinical pharmacology. We would anticipate that a motivated candidate would be in a position to produce a first author peer reviewed paper of original research, alongside presenting work at national and international meetings. There would also be opportunities to contribute to other work within the department and/or lead on ongoing systematic review and quality improvement projects.

Clinical commitments during academic placement

No routine service commitment but there may be involvement in patient recruitment to clinical studies.

Departmental academic teaching programme (if applicable)

- Weekly journal club
- Weekly critical care teaching
- Weekly supervision meetings (more frequently at start of specialised foundation programme placement)
- Lab meetings for in-vitro projects

Academic leads:

Dr Dagan Lonsdale, reader in clinical pharmacology and intensive care medicine
Dr Susannah Leaver, senior lecturer in critical care and consultant intensivist and respiratory physician
Dr Rhod Handslip, consultant intensivist

Programme – Paediatric Orthopaedics – based at St George's Hospital

Reference: 2627/SGUL/05

<i>Type of programme</i> Research	
<i>Employing trust:</i> St George's University Hospital NHS Foundation Trust	<i>Academic placement based at:</i> City St. George's, University of London
<i>Brief outline of department</i> The paediatric orthopaedic service at St. George's Hospital is provided by five consultants. The firm provides tertiary paediatric trauma and orthopaedic care to a region of over two million people. It provides specialised services for Clubfoot and other foot deformities, Spina Bifida, Neurodisability, bone and joint infection, hip pathologies and skeletal dysplasia. The Trauma and Orthopaedic department has a track record of successful grant applications and participating in national trials which has helped to raise the profile of the department within the trust. The research team comprises a Professor in Education (DT) who leads the Undergraduate Orthopaedic Education within City St George's, University of London and is the Simulation Lead for both the British Orthopaedic Association (BOA) and the Surgical Advisory Committee, a Professor of Orthopaedics (CH) who is the research chair for AOUI, sits on the OTS research committee and is a BOA trustee, a Professor in Orthopaedics (AT) who is leading the undergraduate BSc program and Associate Professor Yael Gelfer (YG) who is the South Thames Foundation School FY2 TPD, who is on the BSCOS research committee, the BSCOS consensus lead, who recently completed developing a Core Outcome Set in treatment of Clubfoot and for orthopaedic management of Spinal Dysraphism. The research group provides a range of skills suitable to train an SFP in the early stages of a research career. The team has previously collaborated on projects, and all bring different skills to the bid. There are currently 21 NIHR trials on the departmental portfolio. The SFP will be supervised by academics with a track record in supervising MD and PhD students. The department currently employs five Junior Orthopaedic Research Fellows (JORFs) and has a track record of 40 JORFS who have been successful in national and international presentations and publications as well as academic advancement. The new SFP will be integrated into this team to allow peer mentorship and access to training resources.	
<i>Structure of academic project/what expected</i> The successful applicant will undertake one main research project: Identifying research priorities in Clubfoot management and choosing one established priority to focus on during the research block. The successful applicant will be involved in all stages of establishing priorities in research. They will be trained in conducting a systematic review, designing and analysing outcomes from surveys and interviews as well as designing, executing and analysing a Delphi process, which will be finalised in a consensus meeting. Relevant publications can be found on our website https://www.stgeorges.nhs.uk/people/yael-gelfer/ There will be several other clinical projects to choose from including projects involving paediatric bone and joint infections, physiotherapy input in neurodisability and conservative versus operative treatment for paediatric fractures. The successful candidate will be recruiting patients to trials, they will be required to complete the GCP and Granule course and will be encouraged to develop basics of clinical	

research including statistics, research methodology, R&D approval, ethics application.
<i>Clinical commitments during academic placement</i> There is no routine service commitment. They will be involved in patient recruitment to clinical studies and will join the weekly surgical planning meetings and teaching as well as case base discussions. The department works closely with the university to deliver educational programmes to medical students and residents in the region, providing the ACF with exposure to a structured training programme as well as educational theory. Trauma and orthopaedics consistently scores highly for educational supervision (89.89%), adequate experience (82.78%) and curriculum coverage (80.46%) in the GMC residents survey.
<i>Departmental academic teaching programme (if applicable)</i> Professor Hing leads a group of academics and educationalists comprising a Professor of Practice, an Associate Professor, five Honorary Senior Lecturers and two Clinical Lecturers. The track record of the department has included successfully national grants, commercial partnerships, publications, presentations, and national media coverage providing the resident doctor with a rich supportive environment. The successful applicant will attend a monthly research meeting and produce a weekly report on their research progress to the departmental research lead. Portfolio advise is also given during these meetings to ensure training requirements are met. The SFP will have access to research methodology courses at CSG (statistics, systematic review skills, reference manager) as well as courses at NIHR level (Good Clinical Practice, Granule Courses, principal investigator courses). There is also the opportunity for the SFP to enrol in the Associate PI scheme associate with one of the NIHR studies the department is a part of. The SFP will have the opportunity to complete a PGCert in Healthcare Research Skills and Methods during the FY2 year that will be subsidised by the Foundation School.
<i>Academic Lead:</i> Associate Professor Yael Gelfer yael.gelfer@stgeorges.nhs.uk Professor Caroline Hing caroline.hing@stgeorges.nhs.uk

Programme – Neurosurgery – based at St George’s Hospital

Reference: 2627/SGUL/06

<i>Type of programme</i>	
Research	
<i>Employing trust:</i> St George's University Hospital NHS Foundation Trust	<i>Academic placement based at:</i> City St George's, University of London
<i>Brief outline of department</i> The neurosurgery service is provided by 16 consultants and encompasses the full spectrum of cranial and spinal procedures for all ages including paediatrics. We run an active clinical programme with each consultant having specialist interests, including: vascular, neuro-oncology, skull base, paediatrics, spinal surgery, trauma, hydrocephalus, and functional neurosurgery. Academically we are supported by a professor of neurosurgery, reader, senior lecturer, and 2 clinical lecturers. There is a busy clinical research programme including PhD students and research associates.	
<i>Structure of academic project/what expected</i>	

The academic foundation year 2 resident in neurosurgery will have a choice of projects in functional neurosurgery led by Michael Hart. These will include:

- Advanced neuroimaging analysis for movement disorders and deep brain stimulation (including tractography, resting-state functional MRI, and ultra-high field 7 Tesla MRI)
- Machine learning approaches for lesion detection in focal epilepsy
- Big data analysis of clinical outcomes in neuromodulation for pain

It is the intention that skills are learnt in:

- Data analysis skills including coding in Matlab / Python and Bash
- Knowledge of advanced statistical approaches including machine learning
- Good research practice, including data handling and consent
- Appraisal of research papers on neuroimaging analyses applied to neurosurgery

The learning resources that we will provide will include:

- Daily lab support, either face-to-face or remote
- Access to neuroimaging courses and training (see www.neurocodeskills.fun for suitable resources)
- Face-to-face progress and troubleshooting meetings initially, reduced as required to a minimum of monthly meetings over the course of the programme

We have a growing and versatile team to support each resident. This includes senior group leaders, clinical lecturers, PhD students, and research associates.

Additionally, we have close links with a number of other groups within CSG (Professor Howe and Dr Barrick) and in other institutions including the University of Oxford, the University of Cambridge, and University College London.

Finally, in terms of expected outputs, we would anticipate that each academic F2 would be able to generate a first author peer reviewed paper of original research data. In addition, there will be opportunities present their research in either oral or poster form at national and international meetings, to lead an audit, lead reviews, and contribute as a co-author to other research within the department. There is the opportunity to register for the City St George's, University of London Postgraduate Certificate in Healthcare Research Skills and Methods

Clinical commitments during academic placement

No routine service commitment but there may be involvement in patient recruitment to clinical studies.

Departmental academic teaching programme (if applicable)

Bi-monthly research lab meeting

Bi-monthly molecular and clinical sciences institute academic meetings

Daily neurosurgery clinical teaching

Weekly neurosurgery foundation year and registrar teaching

Academic Lead:

Michael Hart, Senior Lecturer and Honorary Consultant Neurosurgeon

mhart@sgul.ac.uk

Programme – Paediatrics – based at St George’s Hospital

Reference: 2627/SGUL/07

Type of programme	
Research	
Employing trust:	Academic placement based at:
St George's University Hospital NHS Foundation Trust	City St. George's, University of London
Brief outline of department	
Both the paediatric infectious disease (PID) and neonatal services provide tertiary specialist care to infants and children at St Georges, serving South West London and extending to the south coast. The paediatric infectious diseases unit has 8 (3.5 FTE) PID consultants and provides a regional service for the care of children with complex infectious diseases, including HIV, tuberculosis and immunodeficiency. It is a national training centre for PID, formally recognised by the RCPCH. The Centre for Neonatal and Paediatric Infections (CNPI) based at City St George's, University of London is internationally recognised as a leading centre for PID research. CNPI has an active research programme in vaccine-preventable disease, perinatal infection, antimicrobial resistance, optimal use of antimicrobials and infant immunology. The neonatal unit has 12 neonatal consultants and 8 paediatric surgeons. We provide full specialist care with ITU, HDU, special care and transitional care. We work extremely closely with our colleagues in fetal medicine and obstetrics in planning deliveries and care. We will be collaborating with our colleagues in paediatric infectious diseases for research projects that combine both interests.	
Structure of academic project/what expected	
The Specialised F2 resident in Paediatrics will spend 4 months working in the field of paediatric infectious diseases and immunology research in either a paediatric or neonatal setting depending on interest. Projects can be tailored to individual preferences and may include epidemiological studies, clinical trials, case series or systematic reviews. We offer training in clinical trials, epidemiological and statistical analysis and critical appraisal of the literature. Skills that would be useful for a candidate include basic database or statistical knowledge for example REdCap, STATA, or R. Involvement in teaching is encouraged and there is the opportunity to register for the City St. George's, University of London Postgraduate Certificate in Healthcare and Biomedical Education or the PGCert in Healthcare Research Skills and Methods	
Clinical commitments during academic placement	
There will be no routine service commitment but there will be involvement in patient care through clinical research. There will be opportunities to attend grand rounds, MDT meetings or clinics if the candidate wishes to do so.	

Departmental academic teaching programme (if applicable) PID specific: -Wed 12.00pm-1.00pm CNPI journal club / Academic meeting -Wed 1.00pm-2.00pm Institute of Infection and Immunity Seminar -Wed 3.30pm-4.00pm Joint teaching session with Evelina London Children's Hospital PID team -Wed 4.00pm-5.30pm PID MDT
Academic Leads: Prof Kirsty Le Doare (Paediatric Infectious Diseases) kiledoar@sgul.ac.uk Prof Paul Heath (Paediatric Infectious Diseases) pheath@sgul.ac.uk Kostas Karampatsas (Paediatric Infectious Diseases) kkarampa@sgul.ac.uk Dr Nuria Sanchez Clemente (Paediatric Infectious Diseases) nsanchez@sgul.ac.uk

Programme – Emergency Medicine – based at St George's Hospital

Reference: 2627/SGUL/08

Type of programme Research	
Employing trust: St George's University Hospital NHS Foundation Trust	Academic placement based at: City St. George's Hospital
Brief outline of department The emergency department (ED) sees around 150, 000 patients a year and, in addition to delivering services to the local population, provides several specialist regional services including major trauma, cardiology, stroke, neurosurgery, ENT and paediatric surgery. The department has a team of 29 Consultants, including four dual-trained in adult and paediatric emergency medicine, 2 paediatric emergency medicine and several working in pre-hospital care. There is a large clinical team of approximately 80 doctors, physician associates and advanced clinical practitioners and more than 140 nurses. The specialised foundation year 2 resident in emergency medicine will be based in the ED Collaborative Research Group during their academic time, an embedded team of academics and research staff covering diverse research interests across a range of emergency medicine topics. The group includes a team of research delivery staff recruit patients into international and national clinical trials.	
Structure of academic project/what expected The specialised foundation year 2 resident in emergency medicine will be based in the Emergency Department Clinical Research Group during their 4-month academic block. There is a growing and diverse team to support each resident dependent on their topic area. This includes a Professor of Emergency Care, Senior Lecturers, research fellows and emergency medicine consultants with specialist clinical interests. We have close links with academic departments at City St George's, University of London including the Population Health Research Institute. The resident doctor will have a choice of projects in areas related to emergency medicine led by Professor Heather Jarman. These may include:	

- Low-level carbon monoxide exposure
- Patient assessment using novel devices
- Palliative care in the emergency department
- Polypharmacy and medicines management in older patients

It is the intention that skills are learnt in:

- Literature searching, appraisal and review
- Practical data collection and analysis skills (both quantitative and qualitative approaches)
- Knowledge of statistical approaches including use of software
- Good research practice, including data handling and consent
- Laboratory processing and storage of blood samples
- Academic writing and publication

The learning resources that we will provide will include:

- Access to good clinical practice training
- Access to laboratory skills training
- Face-to-face mentorship and supervision
- There is the opportunity to register for the City St George's, University of London Postgraduate Certificate in Research Skills and Methods

We anticipate that the resident will produce a 1st author publication and conference presentation on their project. There is opportunity to present at the Royal College of Emergency Medicine annual scientific conference and at the City St Georges research day

Clinical commitments during academic placement

There will be no routine service commitment but there will be involvement in patient care through clinical studies.

Departmental academic teaching programme (if applicable)

Weekly academic meeting

Weekly emergency medicine foundation year and registrar teaching

Monthly academic peer support and review meetings

Academic Lead:

Professor Heather Jarman, Emergency Department Clinical Academic Lead

Heather.jarman@stgeorges.nhs.uk

Programme – Vascular Surgery – based at St George's Hospital

Reference: 2627/SGUL/09

<i>Type of programme</i> Vascular Research	
<i>Employing trust:</i> St George's University Hospital NHS Foundation Trust	<i>Academic placement based at:</i> City St. George's, University of London

Brief outline of department

St Georges Vascular Institute, based in St George's Hospital and St George's University of London, is the hub of the network which provides emergency and elective services to people living across southwest London and Surrey. Set up in 1999, one of the first in the country, it has developed to be one of the biggest in the UK. The team includes 11 Consultant Surgeons in addition to physicians, interventional radiologists, and clinical nurse specialists. The institute has an international reputation for clinical outcomes and research and provides sub-specialist vascular care for patients across the country.

The department's medical team includes a dedicated geriatric physician, up to 18 junior/speciality doctors, 2 physician assistants and 5 Nurse Specialists. Research and clinical staff are integrated and work as one team. There are currently 2 NIHR Clinical lecturers, 1 NIHR Academic Clinical Fellow, 2 MD/PhD Students and Specialised Foundation Doctors undertaking research with the senior research team.

Academically the department has a strong reputation of clinical outcome research and data science research which has often gone on to lead to service change and translation into clinical practice.

Structure of academic project/what expected

Academic F2 residents in Vascular spend 4 months working with Mr Mital Desai and Mr Iain Roy and one of the NIHR Clinical Lecturers. The project will be decided with them during their F1 year and influenced by their experience, interests, and future aspirations.

Previous projects have been based on clinical outcomes of novel interventions, analysis of large datasets including Hospital Episode statistics, systematic reviews and the department is increasingly undertaking machine learning and image analysis.

We expect academic F2s, with guidance and training, to learn the fundamentals of clinical research methodology including ethics, statistics and writing an application. Abstracts, posters, podium presentations, and manuscripts of work are the expected level of academic output.

All residents (clinical & research) are expected to be involved with recruiting patients to and conducting elements of large national and international clinical trials. There will be the opportunity to see sub-specialist and general vascular surgery, endovascular therapy and clinical practice during the 4 months to better understand the patient population and clinical challenges.

The academic F2 resident has their own desk in the Vascular university office, along with the other academic residents, and therefore gets a broad sense of the different career stages clinical academia and different projects.

The Institute has a strong track record of academic F2 residents achieving national / international presentations as well as often completing a series of connected quality improvement projects. Two of the 2021/22 cohort produced first author publications in high IF journals, all 3 of the 2022/23 have manuscripts for submission/under consideration and one has been successful in obtaining an NIHR Academic Clinical Fellowship for next year. The most recent ACF has secured an RCS England Research Fellowship for his PhD. Both research fellows and SFPs have won national research prizes in each of the last three years. There is an opportunity to enrol in the City St. George's PGcert Healthcare Research Skills and Methods course with funding support.

<i>Clinical commitments during academic placement</i> No routine clinical service commitment but patient recruitment to ongoing trials is expected.
<i>Departmental academic teaching programme (if applicable)</i> Weekly research meeting Monthly Academic Meeting with opportunity to present research data
<i>Academic Lead:</i> Department lead Prof Peter Holt, Project leads Mr Iain Roy & Mr Mital Desai.

Programme – Cardiology – based at St George’s Hospital

Reference: 2627/SGUL/10

Type of programme	
Research	
Employing trust:	Academic placement based at:
St George's University Hospital NHS Foundation Trust	City St George’s, University of London
<i>Brief outline of department</i> The Cardiology Unit provides tertiary service at St. George’s including interventional cardiology, cardiac electrophysiology and devices, advanced cardiac imaging and heart failure, and a quaternary inherited cardiac conditions and sports cardiology service. Cardiac Risk in The Young (CRY) is a charity promoting the screening of young individuals for cardiac disease and the prevention of sudden cardiac death. The CRY Centre for Cardiac Pathology is a world-renowned specialist cardiac pathology service led by Professor Mary Sheppard providing expert assessment for cardiac autopsy post sudden unexplained death. All clinicians and clinical academics at St George’s NHS Trust, together with clinical academics and cardiovascular basic scientists based at the Cardiovascular and Genomics Research Institute, City St George’s University of London (Director Professor Elijah Behr), form part of the Cardiovascular Clinical Academic Group (CAG), led by Professor Maite Tome. This is a collaboration providing a fertile environment for the development of research strategies by the sharing of knowledge and ideas openly within the group.	
<i>Structure of academic project/what expected</i> The academic foundation year 2 resident in cardiology will have a choice of projects within themes including, but not exhaustive of: - Cardiac screening and prevention in the young - Sports Cardiology - Mechanisms of arrhythmia and the application of new ablation technologies	

- Risk stratification in Inherited Arrhythmia Syndromes and Sudden Arrhythmic Death Syndrome (SADS)
- Bioinformatics (genomics, transcriptomics, proteomics) in Inherited Cardiac Conditions
- Cardiac cellular electrophysiological investigation of arrhythmia and inherited cardiac diseases
- Molecular biological investigation of inherited cardiac diseases
- Cardiac imaging
- Interventional cardiology
- Cardiac pathology

Skills to be learnt include (project dependent):

- Data analysis skills
- Knowledge of advanced statistical approaches including machine learning
- Good research practice, including data handling and consent
- Appraisal of research papers
- Bioinformatics
- Molecular biological techniques such as RNA/DNA extraction, sequencing and RT-qPCR
- Histopathological techniques
- Cardiac cellular electrophysiological techniques
- Echocardiography

The project will be catered and tailored for the program lasting 4 months with the aim of producing data that can form the basis of a first author publication for the resident.

We have a large team of highly experienced world-renowned experts in their field with a wealth of supervisory experience for academics at all stages of their careers. Dependent on the choice of project the academic foundation year 2 will have the supervisory attention of both the direct specialist cardiologist or scientist for that project type, as well as the leads for this program in cardiology: Dr Mark Specterman, Senior Lecturer and Honorary Consultant Cardiologist & Electrophysiologist and Professor Elijah Behr, Professor of Cardiovascular Medicine and Honorary Consultant Cardiologist & Electrophysiologist.

Our hope is that the experience the resident garners will foster an interest in the area they are studying that will prompt them to consider pursuing more research in this field in the future. We are very keen to develop such a relationship with the resident to then aid them and advise them with future research posts and opportunities for their career to come, and we hope this will directly involve the St George's CAG in their career to come.

There is an opportunity to enrol in the City St. George's PGcert Healthcare Research Skills and Methods course with funding support.

Clinical commitments during academic placement

There will be no routine service commitment but there will be involvement in patient care through clinical studies.

Departmental academic teaching programme (if applicable)

Weekly Academic Meeting with opportunity to present research data.

Academic Lead:

Professor Elijah Behr, Professor of Cardiovascular Medicine and Honorary Consultant Cardiologist & Electrophysiologist
ebehr@citystgeorges.ac.uk

Programme – Infectious Diseases – based at St George’s Hospital

Reference: 2627/SGUL/11

<i>Type of programme</i> Research	
<i>Employing trust:</i> St George's University Hospital NHS Foundation Trust	<i>Academic placement based at:</i> City St. George's University of London (CSG)
<i>Brief outline of department</i> The Adult Infection Service (Infectious Diseases, Microbiology and HIV) is provided by 14 consultants and encompasses inpatient investigation and management of community, hospital-acquired or travel-associated/ tropical infection. Laboratory diagnosis of Infection is at our on-site South West London Pathology NHS Microbiology laboratory. Outpatient clinics include general Infection, immunology, OPAT HIV and TB. Seven of our Consultants are clinical academics based at the Institute for Infection and Immunity, one of 3 research institutes at CSG located within the same building as the hospital, providing ideal opportunities for translational and clinical research. Research focuses on the host response to infection and the cellular and molecular biology of microorganisms (e.g. <i>M. tuberculosis</i>, <i>Group B streptococcus</i>, <i>sexually transmitted infections</i>, <i>HIV</i>, <i>P falciparum</i>, <i>S aureus</i>, <i>fungi including Cryptococcus and Candida</i>, <i>viruses including Hepatitis C</i>, <i>CMV</i>, <i>influenza</i>, <i>SARS CoV-2</i>), with a view to the development of novel diagnostic, preventative, and therapeutic strategies (genome-based diagnostics, vaccines, novel drug targets, antibody-based therapy, phase II and III multinational trials to optimise use of existing compounds and prevent emergence of AMR). The Institute has a global perspective, with many overseas collaborations, particularly in Sub-Saharan Africa: for example, Ghana, South Africa, Uganda, Tanzania, Gabon, Malawi, Zambia, Botswana, and Guinea, as part of research programmes on tuberculosis, cryptococcal meningitis, Group B strep vaccination, and malaria. Our strong track record in translational research in Infection and Immunity provides opportunities for the Foundation clinical fellow to gain experience in laboratory as well as clinically based research. Groups within the Institute of I&I are active in applied genomics (Butcher, Witney, Bicanic), diagnostics (Sadiq, Planche, Butcher, Staines), vaccines and immunotherapeutics (Heath, Cosgrove, Le Doare, Ma, Reljic), antimicrobial chemotherapy (Bicanic, Harrison, Sharland, Heath, Strang, Wasserman) and resistance (Bicanic, Sharland, Moore), human immune responses to viral (hepatitis, HIV) bacterial (Group B streptococcus, mycobacteria), fungal and parasitic infection (Le Doare, Goodbourne, Reljic, Bicanic, Harrison, Macallan, Wasserman). More details of our research can be found at https://www.sgul.ac.uk/about/our-institutes/infection-and-immunity;	
<i>Structure of academic project/what expected</i> Dependent on the candidate's background, interests and career intentions, the specialised foundation year 2 resident in Infectious Diseases will have the	

opportunity to meet a wide range of Principal Investigators (PIs) to discuss a choice of projects within Infection & Immunity (adult or paediatric) led by one of the Clinical Academics in Adult Infectious Diseases: Derek Macallan, Tom Harrison, Tim Planche, Cath Cosgrove, Tihana Bicanic, Sean Wasserman, Rae Wake. Multi-disciplinary projects co-supervised by basic science PIs within the Centre are encouraged. The post-holder will be expected to develop clinical, epidemiological, and laboratory research skills and start to master statistical analysis tools. Each PI has their own research team who will support the research fellow, ranging from academic clinical lecturers and research fellows, research assistants, lab technicians; data and trial managers. We would anticipate that an academic F2 would be able to generate a first author peer reviewed paper of original research data. In addition, there will be opportunities to present their research in oral/ poster form at national and international meetings, lead reviews, and contribute as a co-author to other research within the department. There is the opportunity to register for the St George's, University of London Postgraduate Certificate in Healthcare Research Skills and Methods	
<i>Clinical commitments during academic placement</i> No routine service commitment but there may be opportunities to attend adult infectious diseases ward rounds and/or outpatient clinics in general ID, specialist HIV or TB	
<i>Departmental academic teaching programme (if applicable)</i> Regular research group meetings Weekly Infection & Immunity institute academic meetings Weekly clinical educational meetings ResearchAware Skills and Methods Series (sgul.ac.uk)	
<i>Academic Leads:</i> Tihana Bicanic (Adult ID), Professor of Infectious Diseases and Mycology tbicanic@sgul.ac.uk Tom Harrison, Professor of Infectious Diseases and Medicine tharrison@sgul.ac.uk	

Programme – Clinical Pharmacology – based at St George's Hospital

Reference: 2627/SGUL/12

<i>Type of programme</i> Research	
<i>Employing trust:</i> St George's University Hospital NHS Foundation Trust	<i>Academic placement based at:</i> City St. George's, University of London
<i>Brief outline of department</i> St George's Clinical Pharmacology department is one of the largest of its type in the country. There are seven academic consultants – Professor Baker and Drs Burrage, Hitchings, Khong, Lonsdale, Ng, Threapleton and Janmohamed – who have a range of research interests. Clinically the team works in a diverse range of disciplines, including acute, maternal and critical care medicine, pharmacogenomics and polypharmacy and make major contributions to medicines management in the region.	
<i>Structure of academic project/what expected</i>	

The specialised foundation resident will work with clinical academics in the department during foundation year one to design a bespoke research experience that will suit their research interests and learning needs. This may involve joining ongoing research activity or participating in the design of their own work.

Potential research projects within the department include:

- Understanding the effect of critical illness on drug pharmacokinetics (in-vivo and in-vitro)
- Describing the clearance of drugs during extra-corporeal support (renal replacement therapy and IMPELLA)
- Modelling and simulation of drug dosing strategies for a range of clinical conditions
- Medical Education research
- Environmental sustainability and impact of medicines
- Drivers for polypharmacy, barriers and clinical impact of deprescribing
- Pharmacogenetics in polypharmacy

Learning and development opportunities:

These will be tailored to the individual resident. However, opportunities include:

- Data analytical skills, including coding in R (or preferred language)
- Good clinical practice, including research governance, consent and data handling and security
- Access to the NIHR associate principal investigator scheme for one of our ongoing portfolio studies
- Laboratory or clinical research skills as determined by the research project
- Formal training opportunities such as post-graduate certificate in research methods and/or statistics are available and encouraged

We have a team of academics who will support the appointee, including consultant clinical-academics, academic clinical fellows and allied health professionals in research training. We have strong collaborations with a number of research groups, in particular vascular pharmacology (Professor Iain Greenwood), primary care and population health, infection and critical care.

We would anticipate that a motivated candidate would be in a position to produce a first author peer reviewed paper of original research, alongside presenting work at national and international meetings. There would also be opportunities to contribute to other work within the department and/or lead on ongoing systematic review and quality improvement projects.

Clinical commitments during academic placement

No routine service commitment but there may be involvement in patient recruitment to clinical studies and attendance at polypharmacy clinics and MDTs

Departmental academic teaching programme (if applicable)

- Weekly journal club
- Weekly supervision meetings (more frequently at start of specialised foundation programme placement)
- Lab meetings for in-vitro projects

Academic leads:

Professor Emma Baker, professor of clinical pharmacology and consultant physician
Dr Daniel Burrage, senior lecturer in clinical pharmacology and consultant physician
Dr Fu Liang Ng, senior lecturer in clinical pharmacology and consultant physician
Dr Dagan Lonsdale, reader in clinical pharmacology and intensive care medicine.
Dr Chris Threapleton, senior lecturer in clinical pharmacology and consultant physician

4.THE MEDICAL SCHOOL AND PARTNER TRUSTS

About St George's University Hospitals NHS Foundation Trust and City St George's, University of London.

St George's University Hospitals NHS Foundation Trust

Since the opening of the original St George's Hospital on Hyde Park Corner in 1733, St George's has built an international reputation for excellence in healthcare, education, research, and medical innovation.

Our primary site, St George's Hospital in Tooting, is one of the UK's leading teaching hospitals. It shares its campus with City St George's, University of London, which trains future medical professionals and conducts cutting-edge medical research.

With more than 10,000 staff, we are one of the largest healthcare providers in the country. Despite our size, we maintain a strong sense of community and close ties with the local populations we serve. Our international recognition as a leader in research and innovation allows us to attract talent from across the globe.

Through our two primary hospital site – St George's Hospital in Tooting and Queen Mary's Hospital in Roehampton – we provide essential healthcare services to a population of 1.3 million people.

In addition to general healthcare services, we provide a range of tertiary services in specialised areas such as neurosciences and paediatric medicine, extending care to approximately 3.5 million people across Surrey and Sussex. We also offer highly specialised services, including complex pelvic trauma and bone marrow transplantation for non-cancer diseases, to patients from the wider southwest of England and beyond.

St George's plays a crucial role in London's healthcare system, being one of the city's four major trauma centres. We are home to hyper-acute stroke and heart attack centres, and we operate one of London's four helipads, ensuring that we can treat the most severely injured and critically ill patients from across southern England.

We are a major centre for cancer care, with St George's Hospital being one of only two designated children's cancer centres in London. We are also the seventh largest provider of cancer surgery and chemotherapy in the capital.

In terms of paediatric care, St George's is one of London's largest children's hospitals. We are home to one of only four paediatric trauma units in London, and we host the only paediatric intensive care unit in southwest London. Additionally, we are recognised as one of the top three centres for specialist paediatric surgery in the capital and a centre of excellence in foetal medicine.

In recent years, St George's University Hospitals NHS Foundation Trust and Epsom and St Helier University Hospitals NHS Trust have strengthened their ties, culminating in the formation of a Hospital Group. This partnership enhances the delivery of healthcare services by enabling more integrated decision-making, a stronger and more resilient clinical workforce, and improved access to a wider range of services for our patients.

Jacqueline Totterdell was appointed Group Chief Executive in August 2021, and Gillian Norton has served as Chair of both Trusts since 2019. Although Epsom and St Helier and St George's remain separate Trusts, they now share a single executive team, allowing us to build on our combined strengths and collaborate more effectively.

We already operate joint services, such as the South West London pathology network, and are in the process of developing a specialist kidney unit to improve patient care across the group.

About City St George's, University of London

City St George's, University of London is the University of business, practice and the professions.

City St George's attracts around 27,000 students from more than 170 countries.

Our academic range is broadly-based with world-leading strengths in business; law; health and medical sciences; mathematics; computer science; engineering; social sciences; and the arts including journalism, dance and music.

In August 2024, City, University of London merged with St George's, University of London creating a powerful multi-faculty institution. The combined university is now one of the largest suppliers of the health workforce in the capital, as well as one of the largest higher education destinations for London students.

City St George's campuses are spread across London in Clerkenwell, Moorgate and Tooting, where we share a clinical environment with a major London teaching hospital.

Our students are at the heart of everything that we do, and we are committed to supporting them to go out and get good jobs.

Our research is impactful, engaged and at the frontier of practice. In the last REF (2021) 86 per cent of City research was rated as 'world-leading' 4* (40%) and 'internationally excellent' 3* (46%). St George's was ranked joint 8th in the country for research impact with 100% of impact cases judged as 'world-leading' or 'internationally excellent'. As City St George's we will seize the opportunity to carry out interdisciplinary research which will have positive impact on the world around us.

Over 175,000 former students in over 170 countries are members of the City St George's Alumni Network.

City St George's is led by Professor Sir Anthony Finkelstein.

www.citystgeorges.ac.uk

All Specialised Foundation Year resident doctors are offered the Postgraduate Certificate in Research Skills and Methods or Education at a discounted rate during their academic training with us.

