

Programme 16 – Cardiovascular Medicine – based at Guy’s and St Thomas’ Hospitals

Reference: 2122/KCL/16

Individual Placement Descriptor (IPD) for the four month academic placement
 Separate IPDs for clinical placements are available on foundation school websites

Type of programme	
Research	
Employing trust:	Academic placement based at:
Guy's and St Thomas' NHS Foundation Trust	Guy’s and St Thomas’ Hospitals
Brief outline of department	
<p>The Cardiovascular Clinical-Academic Grouping integrates the KCL School of Cardiovascular Medicine & Sciences and the King's Health Partners clinical cardiovascular services. We host the joint-largest UK British Heart Foundation Centre of Research Excellence, recently renewed for a third term. The School has ~45 PIs (including 4 BHF Professors) and >50 PhD/MD students among 200 staff. There are a wide range of internationally leading laboratory-to-bedside research programmes covering major disease areas (https://www.kcl.ac.uk/scms/index). Clinical training is undertaken at Guy’s and St Thomas’ Hospital (GSTT), a leading UK cardiac centre with a comprehensive range of cardiology/cardiac surgery services and a strong track record of clinical innovation.</p> <p>Many critical cellular processes that determine myocardial viability and function are regulated through intracellular signalling pathways that respond to environmental or mechanical stimuli and lead to chemical modification of downstream targets. The focus of our work is on the signalling pathways that determine myocardial viability and function within the context of ischaemic heart disease. Our particular interest is in clinical and experimental studies of adaptation to ischaemia through the growth of coronary collaterals and adaptive changes in blood flow within the microcirculation. We investigate these using the whole range of basic and clinical laboratory techniques as well as advanced cross-sectional imaging. The Research theme lies in the Cardiovascular School on the St Thomas' Hospital Campus and involves an interdisciplinary group of clinicians and scientists based in the Rayne Institute and within the clinical cardiology unit at Guy’s and St Thomas’. The other relevant investigators working with Michael Marber include Simon Redwood, Divaka Perera, Michael Shattock, Amedeo Chiribri, Reza Razavi and Rene Botnar</p>	
Structure of academic project/what expected	
<p>Various projects are available and can be tailored to career ambitions and academic interests. Generally, the projects involve the examination of invasive physiological flow and pressure information and their comparison to non-invasive indices obtained by cross-sectional imaging. The purpose is to validate new non-invasive techniques to measure cardiac function and predict clinical outcome. The cardiovascular diseases on which we focus are myocardial ischaemia, heart failure and aortic stenosis.</p>	

Clinical commitments during academic placement

The academic F2 will be required to be on an out of hours rota at Guy's and St Thomas' NHS Foundation Trust which comprises of one in four weekend twilight shifts and will not affect the academic weekday timetable. The F2 is expected to attend the monthly F2 teaching and encouraged to engage with other relevant clinical educational events where applicable.

Departmental academic teaching programme (if applicable)

The Cardiovascular School hosts a comprehensive range of training programmes for clinical and non-clinical scientists. We host a prestigious BHF 4-year programme in Cardiovascular Biology and through the BHF Centre run a novel inter-disciplinary PhD training programme to attract engineers, mathematicians and biophysicists into the cardiovascular field. We also have standard 3-year PhD and MD(Res) studentships/fellowships for non-clinicians and clinicians. These are funded by a range of sources including Research Councils, industry and charities. There are currently 79 registered PhD/MD students. The appointee will be able to access these training resources and educational programmes.

Academic Lead

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