



BHF Centre for Vascular Regeneration

CALL FOR POSTDOC POSITION IN THE FIELD OF VASCULAR BIOLOGY AND REGENERATION

We aim to recruit a highly enthusiastic and capable research associate at postdoc level to deliver projects in the field of vascular regenerative medicine. Focus of research is on acellular regenerative strategy, spanning from regulatory RNA to exosomes (endogenous and synthetic). The post is expected to contribute new technological advancement to the team enabling to better our already strong exosome research reaching out to development of synthetic nanoparticles of second generation and improving their delivery systems. RNA biology and/or in vivo work (in murine myocardial ischemia models) are also areas of high interest and would fit well in the role.

The post is based at the Imperial College London, particularly the Hammersmith campus, which provides top-class research facilities and is linked via free shuttle bus to our South Kensington and White City sites. The postdoc will be embedded in the laboratory of Professor Costanza Emanuelli, who has joined us relocating from the University of Bristol, and will further benefit from being embedded in the wider National Heart and Lung Institute (NHLI) department and Imperial College communities as well as in the British Heart Foundation (BHF) Centres of Regenerative Medicine. The BHF Regenerative Medicine centres were initially established in 2013 and include the top UK universities and a series of international collaborators who have joined efforts to develop transformative translational-relevant research enabling to repair the damage caused by heart disease.

Job Title:	Research Associate
Department	NHLI (National Heart Lung Institute) –Cardiac section
Campus location:	Hammersmith campus
Job Family/Level:	Academic and Research, Level B
Salary Range:	£36,800 to £39,800 gross p.a. (Point 29 to 33)
Responsible to:	Professor Costanza Emanuelli
Contract type:	Fixed Term (2 years, with possibility of one-year extension)

This BHF-funded post will carry out research in endogenous exosomes and their mechanisms used to influence cardiovascular responses *in vitro*, *ex vivo* and in mouse models of myocardial ischaemia or ischaemia/reperfusion. The post will transfer to the lab the last methodological advancements for exosome identification, separation and analyses, including microfluidic approaches that are not yet used by the team. The post will study exosome biology (including mechanisms of RNA sorting in exosomes, exosome secretion and exosome selective uptake by cells that regulate vascular homeostasis and repair) and contribute to collaborative research aiming at developing synthetic exosomes for targeted delivery of a therapeutic cargo to microvascular cells in the ischaemic heart. For this part of the study, the post might spend a period of work abroad (Tel Aviv University or elsewhere) and collaborate with Prof D Peer. To further improve the strategy to delivery (endogenous or synthetic) exosome to the ischemic heart, the post will collaborate with biomaterial scientists and develop new strategies for controlled release of exosomes, including via scaffolds. The post will undertake project management and integrate with multi-disciplinary teams. Moreover, he/she will supervise BSc and post-graduate students

The post will be expected to submit publications to refereed journals and to attract external research funding. High flexibility and willingness to work out of London are requested.

We are looking for future leaders and willing to mentor their research careers. The winning candidate will need to show a strong potential (capability, personality, focus, long-term commitment and previous achievements commensurate to the years of active research) to progress toward externally funded positions. He/she will have equally shown to be a good team player and work under coordination of the PI, supporting her wider programme of research.

Contact: Prof C Emanuelli, via email (strictly) at c.emanuelli@imperial.ac.uk