PhD Scholarship: 
DEFINING THE VASCULAR ENDOTHELIAL STEM CELL FOR TISSUE REGENERATION

Job No.: XXXXXX
Area: UQ Diamantina Institute
Salary (FTE): ($27,082, 2018 rate, indexed annually)
Work type: Full Time, Fixed Term - Scholarship
Location: Brisbane

The University of Queensland Diamantina Institute (UQDI) was established in 2007 as the sixth research institute of The University of Queensland. The aim of the Institute is to develop a better understanding of the molecular and cellular basis of disease, and to translate that understanding into practical outcomes for patients. Based at the Translational Research Institute (TRI) at the Princess Alexandra Hospital teaching campus in Brisbane, the Institute has more than 250 researchers and students who work closely with clinicians in the areas of cancer, immunology and genomic medicine. As the largest partner in TRI, UQDI has build and continues to expand major programs in Cancer, Immunology and Genomic Medicine research, with a particular focus on research aimed at development of new treatments. Details of the research interests of academic staff may be accessed on the Institute's web site at http://www.di.uq.edu.au/research.

The role

The successful Scholar will pursue a PhD degree in cell biology and regenerative medicine with a specific emphasis on defining vascular endothelial stem cells, by conducting research in the laboratory using a variety of molecular experimental methods and appropriate mouse lineage tracing models in the field of cardiovascular biology.

The Project

This PhD project will be to conduct research in the field of stem cell biology to (i) molecularly define vascular stem cells from mouse and human tissue and (ii) use vascular stem cells in in vivo models of ischemia to regenerate the cardiovascular system. The results of this study will allow us understand how vascular stem cells in vivo regenerate blood vessels in the adult system. Maintaining a healthy blood supply is essential for every organ system survival and function in a living organism. This is particularly important as we age and pressures on the regenerative capacity of the circulatory system are stressed, leading to cardiovascular ailments specifically. In addition, delivering vascular stem cells to treat cardiovascular disease is a rapidly growing area of cell therapy and by better understanding how they function will significantly improve their potential success as a treatment option.

The project will encompass using several several methodologic approaches including: mouse lineage tracing models, mouse surgery, handling human tissue, flow cytometry analysis, confocal microscopy, histology, single-cell RNA sequencing, gene expression analysis.

The person

The candidate will have a 1st Class Honours, a Masters or an equivalent degree in biomedical science, or similar research field and a strong motivation to pursue a PhD degree. A solid background in cell, molecular and cardiovascular biology is required. Relevant laboratory experience, particularly with techniques for working with transgenic mouse models and human tissue, flow cytometry analysis, immunohistochemistry and confocal analysis, as well as gene expression and bioinformatic analysis, is highly desirable.
The University of Queensland values diversity and inclusion. Applications are particularly encouraged from Aboriginal and Torres Strait Islander peoples. For further information please contact our Australian Indigenous Employment Coordinator at: atsi_recruitment@uq.edu.au Applications are also encouraged from women. This role is a full-time position; however flexible working arrangements may be negotiated.

Remuneration

The base stipend will be at the rate of AUD$27,082 (this rate is equivalent to the standard UQ scholarship rate, 2018 rate, indexed annually) per annum tax-free for three years with the possibility of a six month extension in approved circumstances.

Enquiries

To discuss this role please contact Dr Jatin Patel (j.patel@uq.edu.au).

To submit an application for this role, use the Apply button below. All applicants must supply the following documents: Cover letter, Resume and Academic Records.

For information about entering the UQ PhD program and for the full terms and conditions, please visit the UQ Graduate School website at http://www.uq.edu.au/grad-school. Please note that at this stage of the process you do not need to complete the online application for admission form. Shortlisted candidates will be interviewed by the lead researcher and the successful applicant will be provided with information on how to apply for admission to UQ. The shortlisted candidate will also be put into the Graduate School scholarship round.

Application closing date:
31st January 2018 11:55pm E. Australia Standard Time