POSITION DESCRIPTION

Position Title: Postdoctoral Research Fellow

Organisation Unit: UQ Centre in Stem Cell Ageing and Regenerative Engineering, and Queensland Brain Institute

Position Number: NEW

Type of Employment: Full Time, Fixed Term, for 12 months

Classification: Research Academic Level A

THE UNIVERSITY OF QUEENSLAND

The University of Queensland (UQ) contributes positively to society by engaging in the creation, preservation, transfer and application of knowledge. UQ helps shape the future by bringing together and developing leaders in their fields to inspire the next generation and to advance ideas that benefit the world. UQ strives for the personal and professional success of its students, staff and alumni. For more than a century, we have educated and worked with outstanding people to deliver knowledge leadership for a better world.

UQ ranks well within the top 100 universities worldwide, measured through a number of major independent university rankings: the Academic Ranking of World Universities, Times Higher Education World University Rankings, US News Best Global Universities Rankings, QS World University Rankings and Performance Ranking of Scientific Papers for World Universities, and is indeed in the top 50 in some of these rankings. Over the past 3 years for which audited data are available UQ has attracted the highest (2013) or second highest (2012, 2014) amount of research funding of any Australian university.

UQ has an outstanding reputation for the quality of its teachers, its educational programs and employment outcomes for its students. Our students remain at the heart of what we do. The UQ experience – the UQ Advantage – is distinguished by a research enriched curriculum, international collaborations, industry engagement and opportunities that nurture and develop future leaders. UQ has a strong focus on teaching excellence, winning more national teaching excellence awards than any other in the country and attracting the majority of Queensland’s highest academic achievers, as well as top interstate and overseas students.

UQ is one of Australia’s Group of Eight, a charter member of edX and a founding member of Universitas 21, an international consortium of leading research-intensive universities.

Our 50,000-plus strong student community includes more than 13,000 postgraduate scholars and more than 12,000 international students from 144 countries, adding to its proud 230,000-plus alumni. The University has about 7,000 academic and professional staff and a $1.7 billion annual operating budget. Its major campuses are at St Lucia, Gatton and Herston, in addition to teaching and research sites around Queensland and Brisbane city.
The University has six Faculties and four University-level Institutes. The Institutes, funded by government and industry grants, philanthropy and commercialisation activities, have built scale and focus in research areas in neuroscience, biomolecular and biomedical sciences, sustainable minerals, bioengineering and nanotechnology, as well as social science research.

UQ has an outstanding track-record in commercialisation of our innovation with major technologies employed across the globe and integral to gross product sales of $11billion+ (see http://uniqquest.com.au/our-track-record).

UQ has a rapidly growing record of attracting philanthropic support for its activities and will have further success in this area as an important strategic aim going forward.

QUEENSLAND BRAIN INSTITUTE

Established in 2003, QBI housed on the St Lucia campus of UQ. It is home to more than 400 staff, including 36 group leaders, working across a range of disciplines, focused on discovering the fundamental mechanisms that regulate brain development and function in health and disease.

Over the past decade QBI has become as one of the world’s leading neuroscience research institutes. It played a key role in contributing to UQ attaining the highest possible score of 5 for neuroscience, in both the 2010, 2012, and 2015 Excellence in Research for Australia (ERA) reviews, one of only two universities in Australia to achieve this.

For more information visit: www.qbi.uq.edu.au

THE UQ CENTRE IN STEM CELL AGEING AND REGENERATIVE ENGINEERING

The UQ Centre in Stem Cell Ageing and Regenerative Engineering (UQ-StemCARE) is located within the AIBN brings together UQ’s leading researchers in stem cell biology, bioengineering, neural, vascular, and musculo-skeletal biology, genome biology, proteomics, bioinformatics, and clinical ageing-related research, to address the following challenges:

1. Discover the intrinsic and extrinsic regulators of stem cell ageing within in vivo perivascular, muscle, skeletal and neural stem cell niches;
2. Develop novel in vitro and in vivo models to interrogate the functional interactions between the intrinsic and extrinsic processes that result in ageing of stem cells and their niches in these tissues;
3. Demonstrate that manipulating novel key regulators can maintain stem cell and tissue function with age; and
4. Translate the scientific results into clinical solutions with medical and commercial potential.

For more information visit: http://www.aibn.uq.edu.au/uq-stemcare

Working with Animals

Working with laboratory animals is an inherent requirement of some positions. Appointment to these positions may therefore be subject to, and conditional upon, satisfactory medical clearance(s) (including disclosure of relevant medical history) to undertake such work without unreasonable risk to your health and to fully comply with necessary ongoing health monitoring procedures and control measures associated with the position.
Information for Prospective Staff

Information about life at UQ including staff benefits, relocation and UQ campuses is available at - http://www.uq.edu.au/current-staff/working-at-uq

The University of Queensland Enterprise Agreement outlines the position classification standards for Levels A to E.

DUTY STATEMENT

Primary Purpose of Position

The candidate will lead projects to understand how concurrent diseases that commonly occur in the elderly may modulate neurodegeneration and age-related changes in the brain. The candidate must have hands on experience in mouse primary neuronal and glial cell cultures and/or induced pluripotent stem cells (iPSC). Candidate must also be proficient in molecular biology (i.e., RNAseq, RT-PCR, western blot) and microscopy (stereology, confocal and/or 2-photon) techniques. Some experience with mouse stereotactic surgeries, organotypic slice culture, behavioural testing and brain microdissection would be desirable.

He/she will be responsible for experimental design, data analyses, and manuscript preparation, and will also be expected to apply for both independent and collaborative funding to support his/her research focus.

Duties

Duties and responsibilities include, but are not limited to:

- Conduct research to further understanding of ageing and neurodegeneration.
- Publish high quality papers and contribute to the disciplined academic environment of the laboratory and the institute.
- Apply for both independent and collaborative research funding.
- Acquire and maintain familiarity with relevant scientific literature and contribute to the academic environment of the laboratory and institute.
- Present results of research at meetings at all levels – laboratory, institutional, national and international as appropriate.
- Contribute to safe laboratory working environment.
- Contribute to supervision of junior members and students within the laboratory and to the smooth running of the laboratory.
- Foster QBI’s and StemCARE’s relations with UQ partner Institutes, industry government departments, professional bodies and the wider community;

Other

Ensure you are aware of and comply with legislation and University policy relevant to the duties undertaken, including:

- the University’s Code of Conduct
- requirements of the Queensland occupational health and safety (OH&S) legislation and related OH&S responsibilities and procedures developed by the University or Institute/School
- the adoption sustainable practices in all work activities and compliance with associated legislation and related University sustainability responsibilities and procedures
• requirements of the Education Services for Overseas Students Act 2000, the National Code 2007 and associated legislation, and related responsibilities and procedures developed by the University

Organisational Relationships

The position reports to Dr. Rodrigo Medeiros (QBI), and the Directors of UQ StemCARE Prof. Cooper-White and Prof. Wolvetang.

SELECTION CRITERIA

**Essential**

- PhD in the area of neuroscience, immunology, molecular biology or relevant discipline;
- Extensive experience in preparing and maintaining mouse primary neuronal and glial cell cultures;
- Extensive experience with inducible pluripotent stem cells;
- Extensive experience in cytological techniques, light and confocal microscopy;
- Extensive experience in protein and RNA extraction;
- Extensive Experience on western blot and quantitative RT-PCR;
- Ability to work independently with limited supervision and manage time effectively under conflicting demands;
- Excellent communication and interpersonal skills;
- Attention to detail and a methodical but expeditious approach to research work;
- Ability to work responsibly, accurately and independently after basic training in techniques;
- Ability to interpret experimental data to plan subsequent experiments and troubleshoot techniques;
- Demonstrated ability to undertake experiments using a range of techniques;
- Ability to bring the work to completion so as to obtain publishable results.

**Desirable**

- Experience in super-resolution microscopy;
- Experience on animal stereotaxic surgery and intracranial injection;
- Experience on animal perfusion and brain microdissection;
- Experience on animal models of learning and memory (i.e., Morris water maze, contextual fear conditioning, open field);
- Experience on drug administration per oral, intraperitoneal and intravenous routes.

Qualification Verification

An appointment to this position is subject to the verification of the highest academic qualification from the conferring institution.

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.