POSITION DESCRIPTION

Position Title: Postdoctoral Research Fellow
Organisation Unit: Queensland Brain Institute
Position Number: 3017309
Type of Employment: Full Time, Fixed Term
Classification: Academic Research 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 in the world’s top universities, as measured by several key independent ranking, including the Performance Ranking of Scientific Papers for World Universities (43), the US News Best Global Universities Rankings (52), QS World University Rankings (47), Academic Ranking of World Universities (55), and the Times Higher Education World University Rankings (60). UQ again topped the nation in the prestigious Nature Index and our Life Sciences subject field ranking in the Academic Ranking of World Universities was the highest in Australia at 20.

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 240,000-plus alumni. The University has about 7,000 academic and professional staff and a $1.8 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://uniquest.com.au/our-track-record).

UQ has a rapidly growing record of attracting philanthropic support for its activities and this will be a strategic focus going forward.

Organisational Environment

Established in 2003, QBI (www.qbi.uq.edu.au) is housed on the St Lucia campus of UQ. It is home to more than 400 staff, including 34 group leaders, working across a range of disciplines, focused on discovering the fundamental mechanisms that regulate brain development and function in health and disease. QBI has state-of-the-art core facilities for super resolution microscopy, flow cytometry, molecular genetics, histochemistry and cognitive testing.

Over the past decade QBI has positioned itself 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 and 2012 Excellence in Research for Australia (ERA) reviews, one of only two universities in Australia to achieve this.

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 primary purpose of the position is to examine sleep functions in the genetic model, *Drosophila melanogaster*, with a focus on whole-brain imaging. Work in the van Swinderen laboratory has found that flies sleep at different intensity levels, depending on experience or genetic background. This provides an exciting starting point to understand different sleep functions, and the genes and circuits in the *Drosophila* brain that could be supporting those functions. The project is centred on uncovering brain circuits that might be specifically involved during different sleep stages, to for example regulate synaptic function and attention-like behaviour. The work will involve whole-brain imaging with 2-photon microscopy, as well as genetic, molecular biology to behavioural analysis.

Necessary skills:

- 2-photon imaging of whole-brain activity in animal models such as flies or zebrafish
- Proficiency with coding in Matlab to analyse large imaging datasets
- Knowledge of *Drosophila* genetics
- Molecular biology background
- Ability to produce publication-quality images and manuscripts
- Knowledge of statistical methods for biology
Duties

Duties and responsibilities include, but are not limited to:

- Conduct research on sleep in Drosophila melanogaster.
- Acquire and maintain familiarity with relevant scientific literature and contribute to the academic environment of the laboratory and institute.
- Publish high quality papers and contribute to the disciplined academic environment of the laboratory and the 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.

Other

Ensure you are aware of and comply with legislation and University policy relevant to the duties undertaken, including but not exclusive to:

- 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 of 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 the Associate Professor Bruno van Swinderen.
SELECTION CRITERIA

Essential

- PhD in the area of neuroscience or biology
- At least 2 publications in internationally recognized science journals
- Experience with whole-brain calcium imaging in animal models
- Matlab coding experience
- Demonstrated expert knowledge in molecular biology and genetics
- Experience in behavioural analysis and statistics
- Excellent attention to detail
- Demonstrated organisational ability and good record-keeping skills
- Self-reliance and motivation
- High level interpersonal skills
- Excellent verbal and communication skills
- Initiative and problem-solving skills
- Awareness of laboratory safety, occupational health and safety protocols
- Ability to work collaboratively with colleagues.

Desirable

- Experience in liaising and collaborating with external agencies to develop co-operative research initiatives.
- An ability to establish effective relationships and to represent and promote academic discipline at a university and wider community level, including industry, government and professional bodies

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.