POSITION DESCRIPTION

Position Title: Postdoctoral Research Fellow
Organisation Unit: Queensland Brain Institute
Position Number: NEW
Type of Employment: Fixed term, full time up to 3 years, with the possibility for extension
Classification: Academic Research Level A or B. Level of appointment will be commensurate with qualifications, experience and academic achievements.

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 CWTS Leiden Ranking (32), the Performance Ranking of Scientific Papers for World Universities (40), the US News Best Global Universities Rankings (42), QS World University Rankings (47), Academic Ranking of World Universities (54), and the Times Higher Education World University Rankings (66). Excluding the award component, UQ is now ranked 45th in the world in the ARWU, and is one of the only two Australian universities to be included in the global top 50.

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 53,000-plus strong student community includes more than 16,400 postgraduate scholars and more than 17,000 international students from 135 countries, adding to its proud 260,000-plus alumni. The University has more than 6,600 academic and professional staff (full-time equivalent) and a $2.15 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+.

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

Organisational Environment

The Queensland Brain Institute (QBI) works to understand the development, organisation and function of the brain. We aim to understand the neural circuits in the brain, how their function results in behavioral outcomes, and how dysfunction of these circuits leads to disorders such as dementia, depression and schizophrenia. We aim to (1) Develop novel therapeutic approaches to treat disorders of neural function and (2) Use our understanding of brain function to improve learning in classrooms and in the workplace.

Established in 2003, QBI is housed on the St Lucia campus of UQ. It is home to more than 450 staff and students, including 41 group leaders.

Over the past decade QBI has become known 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.

Information about the Faculty and the School may be accessed on the Faculty’s web site at www.qbi.uq.edu.au

Information for Prospective Staff

Information about life at UQ including staff benefits, relocation and UQ campuses is available online.

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

The Laboratory for Neural Circuits and Behaviour

The Laboratory for Neural Circuits and Behaviour (led by Assoc. Prof. Ethan Scott) uses a very broad experimental platform, ranging from optical physics to mathematics, to discover and describe brain function and behaviour. This work hinges on brain-wide cellular-resolution calcium imaging in the zebrafish model system, complemented by anatomical descriptions, targeted optogenetic manipulations, mathematical modelling, and behavioural analysis. Our goals are both basic (the elucidation of sensory pathways) and translational (the circuit-level modelling of autism endophenotypes), and we welcome new members with either focus. This work is challenging and rewarding, and best suited to researchers who value broad, interdisciplinary approaches to big questions in neuroscience. Culturally, our lab values diversity in all of its forms, and cultivates a mutually supportive and collaborative atmosphere.

For more information on the group, which will relocate to QBI in January 2020, please visit https://biomedical-sciences.uq.edu.au/research/groups/neural-circuits.
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

This position will involve designing, conducting, and analysing experiments to understand functional neural circuitry in the zebrafish model system. Researchers with past experience in microscope engineering, optical physics, neuroscience, and computational biology are all welcome to apply, but it is expected that appointee(s) will eventually span multiple of these fields once established in the lab. Your projects will be developed to take advantage of your existing experience while allowing growth and development, and your ideas for your own projects (within the lab’s current broad interests) are welcome.

You will work both independently and cooperatively, with access to a dedicated support network and superb neuroscience research facilities, to forge new research directions, make important discoveries, and publish high-profile findings.

Duties

Duties and responsibilities include, but are not limited to:

- Conduct research and experiments toward understanding sensory perception, central processing, and behaviour at the levels of circuits and brain-wide networks.
- Publish high quality papers and contribute to the rich academic environment of the laboratory and the institute.
- Acquire and maintain familiarity with relevant scientific literature, and share this expertise with other members of the group.
- Keep clear and accurate records and ensure effective record keeping and data management.
- Present results of research at meetings at all levels – laboratory, institutional, national, and international as appropriate.
- Assist with the mentorship of junior researchers and students within the laboratory.
- Assist with the development of independent and collaborative funding applications.
- Contribute to an inclusive, cooperative, and affirmative culture within the group.
- Undertake relevant training and professional development as appropriate.

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 Assoc. Prof. Ethan Scott (ethan.scott@uq.edu.au).

**SELECTION CRITERIA**

**Essential**

- PhD in engineering, physics, neuroscience, mathematics, or relevant related fields.
- Expertise and a strong track record in optical physics/engineering, neuroscience, calcium imaging, image analysis, OR the mathematical modelling of complex systems.
- A highly inquisitive nature and a strong desire to develop new ideas and research directions, aimed towards making high-impact findings and developing a research career.
- Excellent verbal and written communication skills, and the ability to work both independently and collaboratively.

**Desirable**

- Record of high-profile first-author publications
- Experience in scientific presentation at an international level
- Experience with coding in Matlab, Python, or other related languages

**Qualification Verification**

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

We value diversity and inclusion, and actively encourage applications from those who bring diversity to the University. Please refer to the University’s Diversity and Inclusion webpage (http://www.uq.edu.au/equity) for further information.

This role is a full-time position; however flexible working arrangements may be negotiated.

Accessibility requirements and/or adjustments can be directed to the contact person listed in the job advertisement.