POSITION DESCRIPTION

Position Title: Research Assistant
Organisation Unit: Institute for Molecular Biosciences
Position Number: TBA
Type of Employment: Fixed term / Full time
Classification: Hew Level 6

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 (45), the US News Best Global Universities Rankings (52), QS World University Rankings (51), 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 secured a greater share of Australian Research Council grants in 2016 ($24.5 million) than any other university nationally.

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.

Organisational Environment

The University of Queensland’s Institute for Molecular Bioscience (IMB) is a leading global life sciences research institute committed to improving quality of life through research. IMB was established in 2000 as UQ’s first research institute and is the cornerstone of one of the largest bioscience research precincts in Australia.

The Institute is home to more than 450 researchers, postgraduate students and support staff from more than 40 countries who work in partnership with their academic, industry and clinical colleagues around the world to advance knowledge in areas including pain, rare diseases, inflammation, superbug infection, cardiovascular disease, environmental research, drug discovery and development, cancer, diabetes and obesity, and reproductive health. Our mission is to drive the bioeconomy and create better health; our vision is to be a life sciences institute with global impact.

By investigating how we grow and develop at the genetic, molecular, cellular and organ levels, IMB researchers can better understand the development processes and pathways involved in human and animal health and disease. The institute also has the technical capacity to translate its new knowledge into drugs, diagnostics and technologies to more effectively prevent, detect and treat disease; and pursue opportunities in a range of biotechnology applications for health, industry and the environment.

IMB’s research outcomes are protected and commercialised by UQ-owned technology transfer group UniQuest.

Details of the research interests of the Institute may be accessed on the Institute’s website at: http://www.imb.uq.edu.au.

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

DUTY STATEMENT

Primary Purpose of Position

The successful applicant will join the Genome Innovation Hub (GIH) at IMB. The GIH is a major UQ genomics initiative that aims to advance technologies in cellular genomics across the university. The aim of the “Genome Innovation Hub” is to develop at UQ an experimental, technological and computational innovation hub focussed on the structural and functional analysis of genomes. This will involve implementing the most advanced and promising methodologies developed both at UQ and elsewhere; extending these techniques to address specific questions of interest to UQ researchers and assisting researchers to apply these techniques in the three key areas: health, agriculture and the environment. The successful candidate will develop and implement algorithms for analysis of long-read DNA
and RNA sequence data generated by both Pacbio and Oxford Nanopore Technologies sequencers.

**Duties**

Duties and responsibilities include, but are not limited to:

- Design and implementation of robust software for analysis of long read sequence data
- Developing and implementing approaches for testing and benchmarking algorithms developed
- Application of software to data generated by Genome Innovation Hub
- Identifying opportunities for novel high-impact research
- Being highly proactive in generating high-quality, high-impact journal publications
- Carefully documenting all procedures and code
- Liaising with other members of the laboratory and with collaborators.
- Providing reports on projects for collaborators and GIH supervisors.
- Maintaining awareness of broad capabilities and emerging tools in long-read sequencing
- Other duties as assigned by the GIH program manager and academic directors.

**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 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 GIH program manager and Associate Professor Lachlan Coin
SELECTION CRITERIA

Essential

- Undergraduate degree in biology, biomedical science, mathematics, statistics, computer science or a related discipline
- Extensive experience and specialist expertise in relevant technical fields; or
- An equivalent combination of relevant expertise, education and training
- Experience in scientific programming and scripting
- Experience with high performance computing
- Evidence of contribution to research
- Ability to work collaboratively with colleagues.
- High level of professional integrity, with sound organisational and problem solving skills.

Desirable

- A PhD in a relevant discipline (such as Bioinformatics, Computer Science, Computational Genomics).
- Experience with analysis of long-read sequence data.
- Development of open source software in bioinformatics
- Experience with genome and/or transcriptome assembly

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.