POSITION DESCRIPTION

Position Title: Research Assistant – Program in Complex Trait Genomics
Organisation Unit: Institute for Molecular Bioscience
Position Number: TBC (multiple)
Type of Employment: Full time, fixed term appointment for 2 years
Classification: HEW Level 5

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://uniquest.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.

Program in Complex Trait Genomics

The Program in Complex Trait Genomics (website: cnsgenomics.com) is based at the Institute for Molecular Biosciences (IMB) and focuses on research towards a better understanding of complex traits and disorders, including psychiatric and neurological disorders, and on the development of underpinning computational and statistical analysis methods. The Program is led by an Executive comprising Prof Peter Visscher, Prof Naomi Wray and A/Prof Jian Yang, who were recently awarded a Program Grant by the Australian National Health and Medical Research Council, commencing in 2017. They have multiple postdoctoral positions available.

Visscher, Wray and Yang and their colleagues are internationally recognised for pioneering the use of multi-marker statistical methods in human genetics and our innovative methods in the analysis of genetic and genomic data of complex traits. Their research is regularly published in top journals such as Nature, Science, Nature Genetics, Genome Research, American Journal of Human Genetics, PLoS Genetics and Molecular Psychiatry.

Research in the Program covers four major themes: Statistical Genomics, Systems Genomics, Psychiatric Genomics and Motor Neuron Disease Genomics. The Program consists of over 20 postdoctoral research staff as well as PhD students, research assistants and visiting academics. Current research involves; the development of novel statistical genetics methodology and software; analysis of genotype, expression and methylation array
data alongside DNA and RNA sequencing data; application of statistical genetic methods to infer the genetic control of diseases.

The Human Studies Unit
The Human Studies Unit supports human research projects with a focus on psychiatric and neurological disorders by providing a framework for human sample processing. These laboratories investigate the pattern of disease in individuals and families, to assess the relative importance of genes and environment in a variety of brain-related conditions. There are some 50 staff involved in research activities. Some of the projects also involve brain imaging and neuropsychological testing to investigate brain structure and function.

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
To receipt, process and store biological samples collected from human participants involved in research projects being conducted at various sites around Brisbane and Australia. Duties will include sample unpacking and documentation, handling and processing of biological samples and laboratory housekeeping such as solution preparation, sample storage management and labware preparation. Other duties for future work may include DNA extraction, quantification and normalisation for downstream applications including genotyping platforms. This role works within standard business operating hours however needs to be flexible and dynamic to allow for handling of returned biological samples within designated timeframes.

Duties

Laboratory

- Receipt, processing and storage of a variety of human biological samples including whole blood, saliva, hair, urine and fecal sample types within strict timeframes
- Extraction of DNA from collected white blood cells
- Collation of stored aliquots of DNA, plasma or serum for human research projects.
- Receipt, handle and document the use of biological samples in accordance with the NHMRC Guidelines set forth in the NHMRC National Statement on Ethical Conduct in Human Research 2007.
- Assist the Laboratory Manager in maintaining stock control of consumables and chemicals.
- General laboratory maintenance such as solution preparation, waste management, ultra low temperature freezer maintenance.
- Assist with project work as requested by supervisors and collaborators, including preparing samples for genomic analysis and care and maintenance of the various genomics platforms.
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 the Project and Laboratory Coordinator, Human Studies Unit

SELECTION CRITERIA

Essential
- Undergraduate degree in Biological Science related studies or agreed technical training and equivalent research laboratory experience.
- Demonstrated ability to follow protocols and instructions to perform work within a laboratory environment.
- Excellent organisational and time management skills to perform tasks within limited timeframes.
- Ability to learn new procedures and techniques and apply these new skills to complete projects.
- Attention to detail to ensure all work is carried out safely and to the highest standard.
- Ability to work independently, efficiently and precisely within the Laboratory Safety Guidelines.
- Ability to work as part of a team and take direction and/or advice to ensure efficient and timely completion of projects.
- Excellent communication skills both written and oral.
- Experience in the use of Microsoft Office applications particularly Excel, Word and Outlook.

Desirable
- Experience with handling and processing human samples.
- Experience in molecular biology and genetic techniques.

The University of Queensland is committed to equity, diversity and inclusion.