POSITION DESCRIPTION

Position Title: Postdoctoral Research Fellow
Organisation Unit: School of Chemistry and Molecular Biosciences
Position Number: TBC
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 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 $11 billion+.

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 School of Chemistry and Molecular Biosciences (SCMB) combines the disciplines of Chemistry, Biochemistry & Molecular Biology, Microbiology and Parasitology into a single academic unit. The School has modern research laboratories with state-of-the-art equipment and research infrastructure. The School includes over fifty academic staff, who are published internationally and have extensive research backgrounds.

The Australian Centre for Ecogenomics (ACE) is a strategic research initiative established at UQ in 2010 under the direction of Professor Phil Hugenholtz and Associate Professor Gene Tyson. It provides a focal point for sequence-based analysis of microbial communities and builds strength in this space not only in Australia, but the southern hemisphere as a whole. ACE is located on Level 5 of the Molecular Biosciences Building (#76) in SCMB. More information about ACE and SCMB may be found on the websites ACE Website and SCMB Website respectively.

Postgraduate coursework programs in Alpha Studies and Bravo Relations are offered internally and externally and provide professional training to both Australian and international students.

Information about the Faculty of Science may be accessed on the Faculty’s web site at https://science.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.

DUTY STATEMENT

Primary Purpose of Position

To work as part of a team analysing microbial genomic data retrieved from microbial observatories established on the Great Barrier Reef. The project is a multi-institutional collaboration supported by Qld Government and the Integrated Marine Observing System (IMOS). The project seeks to establish a publicly available database of meta-genomic and transcriptomic data that will facilitate insights into marine microorganisms and their responses to shifting environmental parameters. The appointee’s primary role will be to generate and analyze microbial DNA and RNA sequence data gathered from microbial observatories and integrate these data with environmental metadata.
Duties

Duties and responsibilities include, but are not limited to:

Research
- Statistical analysis and interpretation of high-throughput sequence data
- Application of bioinformatic tools for genomic and transcriptomic data analysis
- Being highly proactive in generating high-quality, high-impact journal publications
- Advising and supervising postgraduate students and working with colleagues and postgraduates in the development and implementation of joint research projects
- Carefully documenting all procedures and code
- Participate in applications for external research funding.
- Prepare research publications and progress reports and participate in regular meetings to discuss project objectives, methodology and outcomes.

Teaching and Learning
- Contribute to supervision of Honour student and Higher Degree by Research students (as appropriate).

Service and Engagement
- Perform a range of administrative functions in the School
- Contribute to the processes that enable the academic team to manage the work of the School, including participate in School decision-making and serve on School committees
- Foster the School’s relations with industry, government departments, professional bodies and the wider community.
- Any other duties as reasonably directed by your supervisor

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](#) developed by the University
  - 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 Associate Professor Nicole Webster, Australian Centre for Ecogenomics, School of Chemistry & Molecular Biosciences.
SELECTION CRITERIA

- A PhD specialising in one or more of the following areas: bioinformatics, genomics, microbial metabolic reconstruction, molecular microbial ecology with experience in the area of molecular biology, microbiology, genomics, bioinformatics, and/or marine biology
- Emerging reputation for research excellence and academic achievement, relative to career stage and opportunity, as evidenced by publication history.
- Demonstrated experience with the application, analysis, and interpretation of high-throughput sequencing data via metagenomics, preferably from marine systems
- Knowledge of long read sequencing technologies such as Nanopore
- Excellent interpersonal and communication skills, including working effectively both in a team or independently to tight schedules, self-awareness, with an ability to foster an atmosphere of innovation, collaboration, creativity and excellence among others
- Experience with computational methods for genome annotation and inference of metabolic potential, metabolism, and ecology with proficiency in working on unix-based servers and bash
- Experience with automated bioinformatic and/or computational workflows with an ability to program in a scripting language (Python, Perl, Ruby or C++) and the statistical computing language R would be highly regarded

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 and actively encourages applications from those who bring diversity to the University. Please refer to the University’s Diversity and Inclusion webpage for further information and points of contact if you require additional support.

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

Accessibility requirements and/or adjustments can be directed to recruitment@uq.edu.au.