POSITION DESCRIPTION

Position Title: Postdoctoral Research Fellow / Research Fellow – Molecular Biology / Virology

Organisation Unit: School of Chemistry and Molecular Biosciences

Position Number: TBC

Type of Employment: Full time, Fixed term for 3 years

Classification: Academic Level A or B

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 (45), QS World University Rankings (48), Academic Ranking of World Universities (55), and the Times Higher Education World University Rankings (69). UQ again topped the nation in the prestigious Nature Index, and our Academic Ranking of World Universities result in the field of Life and Agricultural Sciences is 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

The Faculty of Science is recognised as a powerhouse for some of the world's leading scientists, teachers, science programs and commercial outcomes. The Faculty is one of the largest Science groupings in Australia, with approximately 1100 (equivalent full-time) staff, and about 7500 (equivalent full-time) students.

Throughout its Schools and Centres, the Faculty unites the disciplines of agriculture and animals, biomedical and biological sciences, chemistry, earth sciences, food sciences, geography, marine science, maths and physics, the environment and veterinary science.

With strong links between the enabling and applied sciences, UQ researchers and graduates are working on a wide range of groundbreaking projects from the molecular characterisation of drug resistant bacteria that affect piglets through to finding better treatments for illness and rehabilitation of the environment.

Information about the Faculty may be accessed on the Faculty's web site: http://www.science.uq.edu.au/

School of Chemistry and Molecular Biosciences

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 50 academic staff, who are widely published internationally and have extensive research backgrounds. Information about the School and research interests of academic staff may be found on the web site http://www.scmb.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

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

DUTY STATEMENT

Primary Purpose of Position

To engage as a Postdoctoral Research Fellow within a research team focusing on development of subunit vaccines for viral pathogens, including a COVID-19 vaccine candidate that is currently in human trials. This position will focus on the generation of monoclonal antibodies from individual B-cells raised against a portfolio of vaccine candidates.
Duties

Duties and responsibilities include, but are not limited to:

Research

**Level A and B**
- Plan and conduct high quality research as part of a team to achieve project goals
- Work collaboratively with other researchers and students to maximise research output
- Present research at meetings as appropriate
- Analyze and write up research data for publication in leading international journals
- Operation of a single cell sorter to isolate individual B-cells
- Use of BD Rhapsody Single Cell Analysis System
- Next generation sequencing (Illumina/nanopore) of immunoglobulin hypervariable regions and associated analysis
- Cloning, expression and purification of recombinant monoclonal antibodies
- Biophysical characterisation of antibody affinities and activity against viruses and pseudoviruses within cell culture based assays

**Level B**
- Take on a leadership role in the research program by conducting research and publishing scholarly papers or exhibiting in high quality outlets to achieve recognition at a national level.

Teaching and Learning

**Level A and B**
- Contribute to supervision of research students at honours and postgraduate level.

**Level B**
- Where undergraduate and postgraduate teaching is undertaken achieve teaching quality as indicated by approved surveys and outcomes for students and improve or innovate where appropriate in response to feedback.

Service and Engagement

**Level A and B**
- Develop external relationships with industry, government departments, professional bodies and the wider community,
- Perform a range of administrative functions.
- Contribute to activities that benefit the organisational unit, including participation in decision-making and serving on internal committees.
- Any other duties as reasonably directed by your supervisor.

**Level B**
- Provide effective links with industry, government departments, professional bodies and the wider community.
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 Project Leadership Team.

SELECTION CRITERIA

- Completed PhD in the area of Molecular Biology, Immunology and/or Virology.
- Demonstrated expert knowledge of, and a contribution to research, including
  published journal articles, in the areas of Molecular Biology, Immunology and/or
  Virology
- A high degree of experience with flow cytometry, preferably single cell isolation
- Experience with the general techniques of molecular biology including cloning,
  protein expression, purification, and biophysical analysis
- Experience with viral research including virus propagation and neutralisation assays,
  assessing immunogenicity and viral challenge models
- Well organised, demonstrated attention to detail and able to compile progress reports
- An ability to work collaboratively and establish effective relationships and to represent
  and promote the academic discipline at a university and wider community level,
  including industry, government and professional bodies.
- Commitment to upholding the University’s values, and with the outstanding personal
  qualities of openness, respectfulness and integrity

Additional for appointment at Academic level B

- Have an established record of publication in high-quality outlets.
- Level of national recognition within their field of expertise
- Has taken a chief investigator role in applications for external research funds

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 (http://www.uq.edu.au/equity) 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