POSITION DESCRIPTION

Position Title: Postdoctoral Fellow – innate immunity
Organisation Unit: Institute for Molecular Bioscience
Position Number: NEW
Type of Employment: Full time, Fixed term
Classification: Research Academic 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 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 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: https://imb.uq.edu.au/

Information for Prospective Staff

The Institute recognises and values equity and diversity, and encourages applications from any individual who meets the requirements of this position irrespective of gender, sexuality, race, ethnicity, religion, disability, age or other protected attributes.

IMB strives to provide an inclusive working environment, and along with the University is committed to supporting staff with family and caring responsibilities by providing policies, programs and initiatives to help balance work and family responsibilities.

Specific initiatives at IMB can be found at (https://imb.uq.edu.au/about/equity-and-diversity-imb)

Information about life at UQ including staff benefits, relocation and UQ campuses is available at - http://www.uq.edu.au/current-staff/working-at-ug

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, in research investigating innate immunity signalling mechanisms and functions in host defence and disease, within the Inflammasome Lab (group of A/Prof Kate Schroder).

Duties

Duties and responsibilities include, but are not limited to:

Research
- Work within an established research group to conduct high quality research and publish scholarly papers that generate new insights into inflammasome biology
- Design and perform experiments, and take responsibility for data analysis and documentation, and manuscript preparation
- Present experimental results in lab meetings and at conferences
- Attend lab meetings and Institute seminars
- Interact with internal and external collaborators
- Work with colleagues and postgraduates to develop joint research projects, including applications for external funding
- Some involvement in supervision of research students (undergraduate, honours or postgraduate levels) working within the lab on similar projects
- Perform administrative duties that underlie scientific research
- Any other duties as reasonably directed by your supervisor

Service and Engagement
- General academic service responsibilities

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 Associate Prof Kate Schroder, Inflammasome Lab Head.
SELECTION CRITERIA

Essential
- PhD in the area of Immunology, Inflammation, Innate Immunity, Cell Death or Infection Biology/Microbiology. PhD studies in other disciplines must be strongly justified in the applicant’s response to the selection criteria.
- A strong knowledge and interest in immunology, inflammation, or host-pathogen interactions.
- A strong track record in the area of innate immunity, inflammation, cell death, or host-pathogen interactions, including first-author publications that demonstrate expert knowledge.
- Strong experimental skills in at least one of the following:
  1. Biochemistry and molecular biology (molecular cloning, western blot, immunoprecipitation)
  2. Protein biochemistry (protein expression and purification, mass spectrometry, enzymology)
  3. Cell biology (cell culture, magnetic-activated cell sorting, over-expression by transfection/transduction, CRISPR/Cas9 gene editing, confocal microscopy)
  4. Immunological assays (preparation of myeloid cells, ELISA, flow cytometry, assays for pyroptotic cell death and cytokine cleavage, macrophage activation assays)
  5. Experience in in vivo animal models and in vivo immune profiling (animal handling, in vivo injection, flow cytometry, immunohistochemistry, ELISA, behavioural tests).
- Ability to work collaboratively with colleagues
- High level of communication and interpersonal skills
- Ability to learn new experimental procedures
- Attention to detail in carrying out experimental procedures
- Careful documentation of experimental work
- Excellent organisational and problem-solving skills
- Commitment to upholding the University’s values, and with the outstanding personal qualities of openeness, respectfulness and integrity

Desirable
- Strong experimental skills in the remaining areas (1-5) above.
- Expertise in inflammasome and myeloid cell biology
- Experience in writing or contributing to grant applications

Seminar
Applicants invited for interview may be expected to present a seminar in conjunction with the selection interview process.
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 (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 IMB HR.