POSITION DESCRIPTION

Position Title: Research Fellow

Organisation Unit: Child Health Qld Clinical Unit, School of Clinical Medicine

Position Number: 3028843

Type of Employment: Full-time, Fixed term

Classification: Research Academic Level 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 (52), QS World University Rankings (47), Academic Ranking of World Universities (55), and the Times Higher Education World University Rankings (65). UQ again topped the nation in the prestigious Nature Index and our Life Sciences subject field ranking in the Academic Ranking of World Universities was 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.

Faculty of Medicine

The University of Queensland’s Faculty of Medicine is an internationally recognised provider of world-class education and research. The research-intensive Faculty has a gross budget of almost $300 million, employs approximately 1000 continuing and fixed-term staff (headcount), has a community of more than 4000 non-salaried academic appointees and around 3200 students (headcount).

The Faculty of Medicine offers Australia’s largest medical degree program for graduates and school-leavers. Undergraduate and postgraduate programs are available in the disciplines of Medicine, Health Sciences, E-Health, Mental Health, Biomedical Sciences and Public Health.

The Faculty possesses enormous strengths spanning research, teaching, industry engagement and clinical practice in disciplines ranging from the basic sciences, biomedical research and development, to clinical trials and public health. Research projects within the Faculty have already led to discoveries with far-reaching social and economic impacts, including the revolutionary Gardasil (TM) vaccine for cervical cancer (Professor Ian Frazer) and a drug discovery EMA401 (Professor Maree Smith), a first-in-class oral treatment for chronic pain which through Spinafex Pharmaceuticals led to Australia’s largest biotechnology commercialisation deal. Faculty staff include three highly cited authors, one Fellow of the Royal Society (FRS), three Fellows of the Australian Academy of Science (FAA) and 12 Fellows of the Academy of Health and Medical Sciences (AAHMS). The Faculty is a core member of Brisbane Diamantina Health Partners, the Brisbane-wide academic health science system.

Educational offerings in biomedical sciences, medicine and public health are informed and supported by research activity across a range of fundamental and clinical areas of importance including recognised strengths in cancer, skin diseases, brain and mental health, maternal and child health and genomics. Cutting-edge facilities such as the Herston Imaging Research Facility (HIRF), the UQ Centre for Clinical Research (UQCCR), our laboratories in the Translational Research Institute (TRI) and the new Centre for Children’s Health Research (CCHR) enable outstanding research outcomes and sharpen our understanding of cancer, autoimmunity, mental disorders, infectious diseases and neurological disease. Further details are available at www.medicine.uq.edu.au.

School of Biomedical Sciences

The University of Queensland School of Biomedical Sciences is a distinguished centre for teaching and research in the academic disciplines of Anatomy, Developmental Biology, Physiology, Pharmacology and Pathology. The School has more than 40 full-time research and teaching staff and is one of the largest Schools of its type in Australia. It has links to other prestigious research centres on the St Lucia campus including the Queensland Brain Institute (QBI), the Institute of Molecular Bioscience (IMB) and the Australian Institute for Bioengineering and Nanotechnology (AIBN). Our diverse research provides an exciting environment for national and international research fellows and higher degree students. It is concerned with advancing the understanding of how cellular mechanisms contribute to the function of the human body in health and disease. Details of the research interests of academic staff may be accessed on the school’s web site at https://biomedical-sciences.uq.edu.au/
In addition to its graduate research programs, the School teaches undergraduate students in Science, Medicine, and Health Sciences.

Children’s Health Queensland (CHQ) Clinical Unit, School of Clinical Medicine

The CHQ Clinical Unit is a small teaching unit based at the Lady Cilento Children’s Hospital consisting of approx. 10 paid staff members and linkages with over 150 unpaid title holders who contribute to the teaching efforts. The Unit is responsible for the delivery of the medicine program at that Hospital site and ensures the effective engagement with the Hospital and Health Service executive.

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-ug](http://www.uq.edu.au/current-staff/working-at-ug)

DUTY STATEMENT

Primary Purpose of Position

To support the research collaboration of Associate Professor Trent Woodruff and Associate Professor Mark Coulthard, who are investigating the role of inflammation in disease and the molecular and cellular mechanisms of vascular endothelial leak in sepsis and systemic inflammation. The Research Officer will be working principally on elucidating the mechanisms of vascular leak in sepsis/systemic inflammation, and the identification of novel therapeutic targets. The laboratory has recently made novel observations about the role of the Eph-ephrin receptor protein-tyrosine kinase signalling pathways during vascular leak in a mouse model of sepsis. The project will include investigation of both molecular, cellular and therapeutic aspects of these signalling pathways using mouse models of sepsis/systemic inflammatory response syndrome, and relevant *in vitro* models and techniques.

This position has the following main purposes:
- Work in partnership with the Laboratory Head, Associate Professor Trent Woodruff (School of Biomedical Sciences) and Associate Professor Mark Coulthard (Paediatric Course Coordinator Faculty of Medicine), to agreed research priorities and direction.
- Provide research expertise in the methods of in vivo disease models, and molecular and cellular biology to achieve the research aims.
- Provide expertise in implementing new technologies relevant to the program.
- Working to the integration of basic and clinical approaches to achieving research goals.
- Contribution to preparation of grant proposals to secure continued research funding.
- Provide teaching and technical support for students, visitors and other research staff.
- Undertake research towards the development of an independent research career.

Duties

Duties and responsibilities include, but are not limited to:

**Research**
- Initiate and develop animal models of sepsis, systemic inflammatory response syndrome, and other inflammatory disease models.
- Consolidate, strengthen and enhance research productivity within a multi-disciplinary team.
- Conduct research and publish scholarly papers of the highest standard.
- Work with colleagues and postgraduates in the development of joint research projects.
- Maintain high ethical and professional standards.
- Promote the integration of basic and clinical research.
- Mentor and supervise research/technical staff including undergraduate and postgraduate students.
- Assist in the administrative function in the laboratory.
- Assist in the development of new projects, including preparation of grant applications.

**Service and Engagement**

- Perform a range of administrative functions in the School of Biomedical Sciences and School of Medicine.
- Contribute to the processes that enable the academic team to manage the work of the Schools, including participate in Schools’ decision-making and serve on School committees.
- Foster the Schools’ 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:
- 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 NHMRC Career Development Fellow, School of Biomedical Sciences with a functional reporting relationship to the Paediatric Course Coordinator, Child Health Queensland Clinical Unit.
SELECTION CRITERIA

Essential

- Undergraduate degree in Science.
- Background knowledge in the biology and therapy of sepsis and systemic inflammation.
- Expertise in mouse models of sepsis/systemic inflammation.
- Expertise in standard tissue culture and molecular techniques including RT-PCR, western blot, immunohistochemistry and other biochemical assays (e.g. ELISA)
- Demonstrated research experience in basic and translational research; evidence of a contribution to research, including the ability to complete research project.
- Experience of publication in the area of inflammation, in quality refereed journals.
- High level inter-personal and communication skills including meeting facilitation.
- Ability to work both independently and collaboratively as part of a multi-disciplinary team
- Well-developed organisational and time management abilities and have a track record of finishing tasks on time and to a high standard.

Desirable

- PhD in the relevant area of research.
- Experience with the mouse caecal ligation puncture model
- Experience in endothelial cell culture, and vascular leak assays
- Experience with other inflammatory disease models
- Experience in publication in the area of sepsis/systemic inflammation

Please refer to the Criteria for Academic Performance policy PPL 5.70.17 when developing the duties and selection criteria for academic roles

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.

ResearcherID

ResearcherID. All applicants will need to create a ResearcherID account (www.ResearcherID.com) and populate it using Web of Science. The ID number then needs to be included in your application.

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 the contact person listed in the job advertisement.