POSITION DESCRIPTION

Position Title: Postdoctoral Research Fellow
Organisation Unit: School of Biomedical Sciences
Position Number: NEW
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 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 (60). 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](http://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.

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 conduct research in trophoblast stem cell differentiation. The position will lead and develop innovative research projects investigating the differentiation of placental syncytiotrophoblast in the context of normal development and preeclampsia.

Duties

Duties and responsibilities include, but are not limited to:

Research

- Conduct research to delineate the molecular mechanisms driving syncytiotrophoblast differentiation, in particular trophoblast cell-cell fusion, in both humans and mice.
- Conduct research and publish scholarly papers in international journals.
- Present research progress and findings at all levels – laboratory, school, national and international meetings.
- Contribute to a safe and collegiate laboratory working environment.
- Supervise undergraduate students and junior members of the laboratory.
- Contribute as a positive and collaborative member of a wider research group within the Placental Biology Laboratory and within the School of Biomedical Science.
- Work with colleagues and postgraduates in the development of joint research projects.

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
• 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 Dr David Simmons.
SELECTION CRITERIA

Essential
- PhD in Physiology or Developmental Biology.
- Knowledgeable in common laboratory techniques in physiology and molecular biology.
- Prior experience with confocal microscopy, in situ hybridization and immunohistochemistry
- Prior experience with trophoblast stem cell derivations and culture.
- Demonstrated productivity and contributions to research relative to opportunity in the form of published scholarly papers in internationally peer reviewed journals.
- Excellent communication skills including presentations at institutional, national and international meetings.
- The ability to develop relationships with colleagues in cognate disciplines and work collaboratively to achieve project objectives.
- The ability to work independently

Desirable
- Demonstrated expert knowledge in placental development in humans or mice.
- Research experience with human primary cell cultures.
- Quantitative analysis of images obtained by confocal microscopes, mathematical modelling or similar.
- Experience with cell isolation and culture.

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.

Applications are particularly encouraged from Aboriginal and Torres Strait Islander peoples. For further information please contact our Australian Indigenous Employment Coordinator at: atsi_recruitment@uq.edu.au

Applications are also encouraged from women.

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