POSITION DESCRIPTION

Position Title: Postdoctoral Research Fellow in Statistical Genomics
Organisation Unit: Genomic Medicine, University of Queensland Diamantina Institute
Position Number: TBC
Type of Employment: Full Time, Fixed Term for 2 years
Classification: 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 (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://uniqueast.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.

The University of Queensland Diamantina Institute

The University of Queensland Diamantina Institute (UQDI) was established in 2007 and forms a major research centre within the Faculty of Medicine. The aim of the Institute is to develop a better understanding of the molecular and cellular basis of disease, and to translate that understanding into practical outcomes for patients. Based at the Translational Research Institute (TRI) at the Princess Alexandra Hospital teaching campus in Brisbane, UQDI has more than 300 researchers, clinical academics and students who work closely with hospital clinicians in the areas of cancer, immunology, genomics and other areas of
translational medicine. UQDI has particular research strengths in skin cancers, blood cancers and autoimmunity.

UQDI has a mission of translating discoveries into better treatments and has a strong record of achievement, most notably in the development of cancer therapies: research at UQDI by Professor Ian Frazer AC FRS led to the development of the cervical cancer vaccine Gardasil. UQDI is the largest partner in the TRI, which is an extremely well-equipped translational biomedical research institute, with outstanding laboratories and core facilities for imaging, microscopy, flow-cytometry and in vivo models of disease. Its close affiliation with clinical units at Princess Alexandra Hospital provides UQDI with a significant strategic advantage in near-patient, translational research.

UQDI is part of The University of Queensland, one of the top Australasian universities, and internationally is ranked in the top 100 universities in all major independent rankings. UQDI academics are part of a vibrant and highly successful academic institution optimising their chances of research success. Details of the research interests of academic staff maybe accessed on the Institute’s web site at http://www.di.uq.edu.au/research.

The Endocrine Hypertension Research Centre (EHRC) within the UQ Diamantina Institute at Princess Alexandra Hospital (PAH) and Greenslopes Private Hospital (GPH) is involved in clinical research into epidemiological, clinical, biochemical, morphological and genetic aspects of hypertension, and especially endocrine forms such as primary aldosteronism (PA). It has accumulated one of the largest series in the world of patients with PA (over 2000) who have been carefully studied and documented. Ongoing studies are aimed at what causes PA and how to better detect, diagnose and treat it, and exploring how other salt sensitive forms of hypertension develop.

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
The UQ Diamantina Institute is seeking a Postdoctoral Research Fellow in Statistical Genomics to work on the ADRENAL GEPS Study- one of the world’s largest genetical genomics studies of severe sepsis (overwhelming bacterial infection). The Postdoctoral Research Fellow will be responsible for the quality control, statistical analysis and write up of studies using RNASEq, genome-wide SNP and methylation array data to investigate the molecular basis of overwhelming bacterial infection.

Duties
Duties and responsibilities include, but are not limited to:

Research

- Perform RNASEq, GWAS and EWAS analysis
• Publish high quality papers and contribute to the academic environment of the laboratory and institute
• Acquire and maintain familiarity with relevant scientific literature
• Present results of research at meetings at all levels - laboratory, institutional, national and international as appropriate
• Contribute to the supervision of junior members of the laboratory and the smooth running of the laboratory
• Other duties as required by the Group head, consistent with the level of appointment

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 Professor David Evans.

SELECTION CRITERIA

Essential
• PhD in statistics, genetics, genetic epidemiology, or a related field, or will be in the final stages of such a degree (submitted not yet awarded).
• Experience in the analysis of one or more of the following GWAS, RNASEq and EWAS
• Knowledge of the UNIX/LINUX operating system and an ability to write batch scripts
• Experience in R or one of the major statistics packages
• Experience in handling and manipulating large datasets
• Past track record of publications
• Initiative and problem solving skills
• Ability to work relatively independently with excellent organizational skills

Desirable
• Experience in RNASEq
• Experience in Mendelian randomization methods
• Interest/experience in working on sepsis/bacterial infections.
- A background in immunology/critical care
- Programming experience

**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.

Accessibility requirements and/or adjustments can be directed to the contact person listed in the job advertisement.