

# **POSITION DESCRIPTION**

Job Title:	Principal Research Fellow
Organisation Unit:	The University of Queensland Diamantina Institute
Position Number:	TBA
Type of Employment:	Full time, fixed term for 5 years
Classification:	Academic Research Level D

#### BACKGROUND

#### **Organisational Environment**

The Federal Government's 2012 Excellence in Research for Australia exercise confirmed The University of Queensland as one of the nation's top three universities, measured by the quality of its comprehensive range of specialised research fields. ERA reported that research at UQ is well above world standard in more specialised fields than at any other Australian university: this reflects UQ's leading global role in many areas of discovery. UQ's outstanding critical mass offers researchers significant interdisciplinary capability.

UQ integrates its research strengths with excellent teaching and learning and has won more national teaching awards than any other Australian university. International university rankings highlight UQ's excellence: Academic Ranking of World Universities (Shanghai Jiao Tong), Times Higher Education, QS and National Taiwan University Ranking all rank UQ in the top 100. UQ is one of Australia's Group of Eight, and a founding member of Universitas 21, an international consortium of leading research-intensive universities.

UQ's 45,500-strong student community includes more than 10,000 postgraduate scholars and more than 11,000 international students from 162 countries. The University has more than 7,000 academic and professional staff and a \$1.6 billion annual operating budget. Its major campuses are at St Lucia, Ipswich, Gatton and Herston, in addition to teaching and research sites around Queensland and Brisbane city. The University has six faculties and eight institutes. The institutes — funded by government and industry grants, philanthropy and commercialisation activities — have built scale and focus in research areas that UQ regards as strategically important.

The Faculty of Medicine and Biomedical Sciences incorporates the Schools of Medicine, Biomedical Sciences and Population Health as well as major research centres including the UQ Centre for Clinical Research, Diamantina Institute, Queensland Children's Medical Research Institute, Mater Medical Research Institute-UQ and the Centre for Integrated Preclinical Drug Development.

The Faculty has a budget of around \$180M, employs approximately 850 continuing and fixed-term staff, has a community of approximately 2800 Academic Title Holders and has around four thousand students (EFTSL). The Faculty was established on 1 January 2014 and is designed to:

- position UQ to be as competitive as possible in the emerging biomedical and clinical 'translational environment' as identified in the McKeon Review;
- co-locate schools and institutes that provide broad coverage of the 'translational pipeline' from the pre-clinical sciences through to both the hospital-based research institutes and the population and global health programs that are a core focus of the School of Population Health (T3 and T4 translational outcomes);

- connect basic and clinical sciences at UQ;
- co-locate UQ's four hospital-based institutes/centres in the one faculty;
- reduce fragmentation in biomedical research at UQ;
- leverage as much as possible from the establishment of Translational Research Institute (TRI, of which UQ is one of the four foundation partners); and
- facilitate co-ordinated engagement with major new external initiatives such as the development of integrated health research centres.

The University of Queensland Diamantina Institute was established in 2007 as the sixth research institute of The University of Queensland. 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, the Institute has over 270 researchers and students who work closely with clinicians in the areas of cancer, immunology and genomic medicine.

UQDI is the largest partner in TRI, and is building major programs in Immunology, Cancer and Genomic Medicine research, with a particular focus on research aimed at development of new treatments. TRI is an Australian first and will see Australia play a leading role in international efforts to address a wide range of health issues. UQDI itself is an extremely well equipped translational biomedical research institute, with outstanding facilities for research in animal models of disease including cutting-edge imaging technologies, human cell and molecular biology research in cancer and immunology, and genomics research, housing the largest sequencing/genotyping facility in Australasia. In 2015 this will be significantly expanded, increasing its capacity to sequence up to 15,000 whole genome sequences per annum. Its close affiliation with clinical units at Princess Alexandra Hospital provides it 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 thus are part of a vibrant and highly successful academic institution optimising their chances of research success. Details of the research interests of academic staff may be accessed on the Institute's web site at http://www.di.uq.edu.au/research.

#### **Information for Prospective Staff**

Information can be found at <u>https://www.uq.edu.au/uqjobs</u>.

#### **DUTY STATEMENT**

#### **Primary Purpose of Position**

The primary purpose of this position is to establish and lead a research group conducting high quality research in the field of cancer genetics. The successful applicant will have substantial experience in the generation and analysis of next generation sequencing data from cancerous tissues, and will be an expert in bioinformatics, applied statistics or both. Experience in the analysis of blood or skin cancers would be an advantage but is not essential. The researcher will be expected to engage and lead collaborative research with other members of UQDI in the cancer and genomics programmes, the Faculty/School, TRI and PA hospital campus in general to ensure maximum opportunities for research outcome translation to the clinic. They will be required to supervise and mentor post-doctoral fellows, doctoral, masters and honours students. They will also be required to undertake administrative and other activities associated with the institute.

## **Duties**

Duties and responsibilities include, but are not limited to:

- Develop and lead an internationally competitive research group focused on cancer genetics
- Attract competitive research funding in the form of research grants, fellowships and commercial funding
- Develop research collaborations with UQDI based researchers in the cancer and genomics programmes
- Develop productive research collaborations with hospital based clinicians and oncologists
- Supervise and mentor postdoctoral fellows
- Attract and supervise doctoral, masters and honours students
- Provide bioinformatics expertise to other researchers within the Institute
- Present results of research at meetings at all levels laboratory, institutional, national and international as appropriate
- Contribute to progress reports, publications and research grants

### **Other**

- Perform a range of administrative functions in the Institute
- Foster the School's relations with industry, government departments, professional bodies and the wider community
- Contribute to the processes that enable the academic team to manage the work of the Institute, including participate in Institute decision-making and serve on Institute committees
- Comply with the University's Code of Conduct (see the University's web site at <a href="http://www.uq.edu.au/hupp/?page=24987">http://www.uq.edu.au/hupp/?page=24987</a>)
- Adopt sustainable practices in all work activities and comply with associated legislation and related sustainability responsibilities and procedures developed by the University (see the University's web site at <a href="http://www.uq.edu.au/sustainability/responsibilities">http://www.uq.edu.au/sustainability/responsibilities</a>

#### **Occupational Health and Safety**

• Comply with requirements of Queensland occupational health and safety (OH&S) legislation and related OH&S responsibilities and procedures developed by the University or School. (see the University's web site at <a href="http://www.uq.edu.au/ohs/index.html?page=133956">http://www.uq.edu.au/ohs/index.html?page=133956</a>)

#### **Reporting Relationships**

The position reports to the Chair Head of Genomics Program, Professor David Evans.

## SELECTION CRITERIA

#### Qualifications

Essential

• A PhD in bioinformatics, genetics, biology, a relevant area of computer science or applied mathematics.

#### **Knowledge and Skills**

**Essential** 

• Demonstrated expert knowledge in the generation and analysis of next generation sequencing

data specifically as applied to cancer/somatic mutations

- Proven track record in research employing next generation sequencing supported by relevant publications
- Comprehensive understanding of genomic data analysis and software tools.
- Experience in manipulating and analysing large biological datasets including whole genome and exome sequences, and microarray datasets.
- Demonstrated ability to provide active leadership, expert training and guidance to staff and research students
- Proven ability to win competitive research funding grants
- Demonstrated skills to deliver concise, high quality scientific/technical reports and presentations to technical and scientific communities

## Desirable

• Experience in working with blood and/or skin cancer

## **Personal Qualities**

- Proven ability to lead and collaborate in multi-discipline projects
- Ability to develop and foster collaborative links with other research and/or industry groups, nationally and internationally
- Ability to attract high quality higher degree research (particularly PhD) candidates and successfully guide them to completion
- Strong communication and time management skills and the ability to meet objectives within set deadlines
- High level interpersonal and personnel management skills

## The University of Queensland is an equal opportunity employer.

Smoking is prohibited in all University buildings.