POSITION DESCRIPTION

Position Title: NIF Imaging Informatics Fellow
Organisation Unit: Centre for Advanced Imaging
Position Number: 3022101
Type of Employment: 4 Year Fixed Term Contract
Classification: Research Academic Level B/C

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 CWTS Leiden Ranking (32), the Performance Ranking of Scientific Papers for World Universities (43), the US News Best Global Universities Rankings (42), QS World University Rankings (48), Academic Ranking of World Universities (55), and the Times Higher Education World University Rankings (69). Excluding the award component, UQ is now ranked 45th in the world in the ARWU, and is one of the only two Australian universities to be included in the global top 50.

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 52,000-plus strong student community includes more than 16,400 postgraduate scholars and more than 15,400 international students from 135 countries, adding to its proud 250,000-plus alumni. The University has more than 6,600 academic and professional staff (full-time equivalent) and a $1.75 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

National Imaging Facility
The National Imaging Facility (NIF) is an Australia wide collaborative network of world-class imaging infrastructure, which was established in 2007, one of the four initiative projects implemented by the Australian Government, under the National Collaborative Research Infrastructure Strategy (NCRIS) Characterisation capabilities program. NIF provides state-of-the-art imaging capabilities for the imaging of human, animals, plants, and materials and consists of 10 Nodes (University of Queensland, University of New South Wales, University of Sydney, Western Sydney University, The Florey Institute of Neuroscience and Mental Health, Large Animal Research & Imaging Facility, University of Melbourne, Monash University, Swinburne University of Technology, and University of Western Australia) together with ANSTO, as a national partner in radiophysics and radiopharmaceuticals.

Connecting Researchers with Infrastructure, NIF provides cutting-edge imaging technologies and highly specialized expertise in three main themes of:

- Molecular Imaging and Radiochemistry;
- Human Imaging; and
- Animals, Plants, and Materials Imaging.

The NIF organizational structure consists of Governing Board, Participant Council, Operations Committee, Thematic Groups, Industry Engagement Committee and Advisory Panel, and the NIF Central management team. The Centre for Advanced Imaging (CAI) at the University of Queensland hosts the largest Node of NIF and is also the base of NIF Central Management. For further information on NIF please visit www.anif.org.au.

Centre for Advanced Imaging
The Centre for Advanced Imaging (CAI) is a strategic initiative of The University of Queensland, reflecting the growth in biotechnology, biomedical and materials research requiring advanced imaging capabilities. As a leading imaging research facility in Australia, and one of a handful in the world, CAI brings together the skills of a critical mass of researchers and 'state-of-the-art', world- or Australian-first research imaging instruments. NMR, EPR, MRI, PET, CT and optical imaging are now key platform research technologies for studying the structure and function of biomolecules and living organisms, from proteins to the human.

Further details on the Centre for Advanced Imaging and the research interests of its staff can be found on CAI’s website http://www.cai.centre.uq.edu.au/
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](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 coordinate and participate in research programs at the Queensland node of the National Imaging Facility – an NCRIS funded national network of imaging laboratories, within the Centre for Advanced Imaging (CAI). The appointee will be expected to provide image data management and analysis expertise on a collaborative and consultative basis to local and external users of the NIF facilities, facilitate NIF access to UQ and National computational facilities, and to promote NIF activities to the international, national and institutional scientific community. The position will allow the appointee to develop an independent research profile in the areas of MRI and molecular imaging and be integral to imaging data analysis research activities at the UQ node. The role reports to the Director, NIF Queensland Node and will be responsive to the imaging informatics requirements of the CAI Image Analysis Group Leader, and users of the Queensland Node.

The position will be expected to provide leadership in the development of national eResearch initiatives where relevant to imaging such as the Characterisation Data Enhanced Virtual Laboratory, Disparate Data Type curation and GLAM sector data visualization and curation.

**Duties**

Duties and responsibilities include, but are not limited to:

- Assist in the development, maintenance and user training of image data management and analysis platforms for user access across the NIF network;
- Promote and coordinate access to national computational facilities at the Queensland node;
- Undertake and participate in research programs in imaging science on a collaborative and consultative basis with users at the UQ node and across NIF nationally;
- Implement data storage and delivery for imaging modalities contained at the Queensland Node;
- Assist new users in the visualisation and analysis of image data and develop new imaging processing methods for NIF users;
- Preparation of publication manuscripts and research grant applications;
- Participate in promotional and educational activities of the NIF;
- Assist the Director, Queensland Node and NIF Facility Fellows in the preparation of business plans, applications portfolios, publicity material and annual reports for State and Commonwealth Governments and UQ;
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 the Director, NIF Queensland Node, based within the Centre for Advanced Imaging, and will consult with the CAI Image Analysis Group Leader.

SELECTION CRITERIA

Essential

- Postgraduate qualifications or progress towards postgraduate qualifications and extensive relevant experiences in the area of computational science. To be considered for appointment at Academic Level C, a PhD and minimum of 3-years postdoctoral research experience would be expected;
- Experience managing large scale research data with differing file formats and delivery of this data to external users;
- Expertise in a wide range of image processing areas, including visualisation, segmentation, and registration;
- Clear communication and teaching skills to introduce and incorporate new analysis techniques to researchers who are both expert and new to the field.
- Database management and retrieval mechanisms;
- Knowledge of computing and IT hardware and software platforms;
- Evidence of application and development of image processing in research.
- Ability to work collaboratively with colleagues;
- High level communication, inter-personal and communication skills;
- Ability to make decisions under pressure.
- Demonstrated high level of accuracy and attention to detail;
- Demonstrated ability to document procedures and outcomes, accurately and unambiguously;
- Quality and timeliness of completed work.

Desirable

- Knowledge of MR, PET and CT imaging technology and research;
- Knowledge of meta-data standards for biomedical images;
- Knowledge and/or Experience with the ARDC, particularly Virtual laboratories.
Experience with image analysis and visualisation programs such as AMIRA, OSIRIX, Nifti and MINC.

Evidence of skills to participate in and manage numerous collaborative projects;

Experience in preclinical imaging research.

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 recruitment@uq.edu.au