PhD Scholarships – Development and Validation of Nanomedicines: Novel Diagnostics, Therapeutics and Theranostics.

Organisation Unit: The University of Queensland, Centre for Advanced Imaging
ARC Training Centre for Innovation in Biomedical Imaging Technology (CIBIT)

Position Number:

Type of Employment: Full time-Fixed term, HDR Scholarship

Salary   Research Scholar BAND

Nanomedicine is a major driver of the biotechnology sector and contributes significantly to innovation in Australia. We are seeking high achieving graduate students to undertake postgraduate research into next generation nanomedicines. These projects will have a strong industry focus, with dedicated input and training from commercial partners in the biotechnology sector. Applicants should have experience in chemistry and biology, and can expect high-level training in state-of-the-art imaging facilities for in vivo validation of new technologies. The unique collaborative environment presented within this program will offer the candidate opportunities to expand their career into areas spanning academia and industry. In particular the candidate will be involved in developing new theranostics, diagnostic radiopharmaceuticals, antibody-drug conjugates for cancers including prostate and ovarian cancer, glioma, melanoma and osteosarcoma.

The **Australian Research Council Training Centre for Innovation in Biomedical Imaging Technology (CIBIT)** is a multidisciplinary collaboration between researchers at The University of Queensland's Centre for Advanced Imaging and partners in the Medical Technologies and Pharmaceutical industry. The purpose of this national centre is to provide research training in the development of 'smart' probes and 'smart' scanning techniques in conjunction with industry partners. Students will undertake industry-driven research to overcome bottlenecks in the development and application of novel diagnostics, therapeutics and theranostics and to inform changes in regulatory policy that support industry growth. Scholarships will include an industry placement for one year.

CIBIT encompasses two major research themes; this project will be specifically related to Theme 1.

Theme 1: 'Smart' Probes: Diagnostics, therapeutics and theranostics for Precision Medicine in cancer.
Theme 2: 'Smart' Scanning: Harnessing the digital revolution to improve diagnostic imaging cost-effectively.

CIBIT is supported by industry partners Siemens Healthcare Pty Ltd, BGI International Pty Ltd, Inter-K Peptide Therapeutics, Clarity Pharmaceuticals Pty Ltd, Minomic International Ltd, Theranostics (Australia) Pty Ltd, Brisbane Veterinary Specialist Centre, Uniting Care Medical Imaging Pty Ltd and Red Radiology Pty Ltd.

The Centre for Advanced Imaging

The Centre for Advanced Imaging (CAI), a strategic initiative of The University of Queensland, is a leading imaging research facility in Australia, and one of a handful in the world. It brings together the skills of a critical mass of researchers and state-of-the-art, world- or Australian-first imaging research instruments including NMR, EPR, MRI, PET, CT, optical imaging and an on-site cyclotron and radiochemistry facilities. CAI hosts the largest Node of the National Imaging Facility (NIF) (http://anif.org.au/).

CAI conducts research across the spectrum from development of new imaging technologies, analysis of molecular structure, synthesis of MRI and PET biomarkers targeting fundamental biological processes to studies of major diseases affecting a range of organ systems, through to imaging economically significant agricultural animals and plant material, minerals and construction materials.

A multidisciplinary, cohesive student community have come together from all over the globe to CAI to undertake research training. The Centre has an active student association (STAC) that provides many opportunities for networking and professional development, a supportive mentoring structure that will enhance personal and professional growth, an annual symposium and a well-attended weekly seminar program which attracts high profile National and International speakers.

Further details on the Centre for Advanced imaging and ongoing research can be found on CAI's website http://www.cai.uq.edu.au/.

CAI is committed to supporting the career growth of female researchers and have a number of initiatives to support females in developing and achieving a fulfilling research career at the institute. For more information, please visit our CAI Women in Imaging website at https://cai.centre.uq.edu.au/women-imaging.

The candidate
Applications are invited from outstanding and enthusiastic graduates with relevant backgrounds. Students may be domestic or international of high scholarly calibre and will have a First Class Honours degree, Masters degree or equivalent. Applicants must meet the requirements for admission into the UQ Graduate School PhD program (https://graduate-school.uq.edu.au/uq-research-degrees) and should also be eligible for a UQ Graduate School Scholarship (UQGSS) (https://graduate-school.uq.edu.au/scholarships).

Remuneration
The base stipend will be at the rate of AUD $27,082 per annum (2018 rate) tax-free for three years with the possibility of two six month extensions in approved circumstances. For the candidates who have been successful in obtaining any government-funded scholarship or UQ-funded scholarship or any other external scholarship, a top-up scholarship may be awarded.

Enquiries: For enquiries specific to this project please email David Reutens (d.reutens@uq.edu.au) or Kristofer Thurecht (k.thurecht@uq.edu.au).

To submit an application for this role, please send your application to CAI hdr@cai.uq.edu.au. All applicants must supply the following documents
- Cover letter.
- Academic CV, including details of two referees. Please go to https://graduate-school.uq.edu.au/what-include-academic-curriculum-vitae-cv for details on what is required in an academic CV.

- International applicants: Evidence for meeting UQ's English language proficiency requirements https://graduate-school.uq.edu.au/english-language-proficiency-requirements
- Academic transcript for all post-secondary study undertaken, complete or incomplete, including the institution grading scale