POSITION DESCRIPTION

Position Title: Post Doctoral Research Fellow
Organisation Unit: School of Pharmacy
Position Number: 
Type of Employment: 3 Years Part Time 0.8 FTE
Classification: 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://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 Health and Behavioural Sciences**

The Faculty of Health and Behavioural Sciences is a strong faculty that has a coherent focus on health and well-being underpinned by a clear integrative theme related to preventative health and behaviour change. Furthermore, the Faculty provides the opportunity for the non-medical health sciences to have a stronger voice and greater visibility within the University.

The Faculty currently includes six schools and five research centres:

- School of Dentistry
- School of Health and Rehabilitation Sciences
- School of Human Movement and Nutrition Sciences
- School of Nursing and Midwifery and Social Work
- School of Pharmacy
- School of Psychology
- Centre for the Business and Economics of Health
- Centre for Youth Substance Abuse Research
- Recover Injury Research Centre
- Queensland Alliance for Environmental Health Sciences
- Poche Centre for Indigenous Health

**The School of Pharmacy**

The School of Pharmacy is one of the largest Schools of this type in Australia with over 50 academic staff (including joint appointments with the community, hospital and government pharmacies) who are widely published internationally and have extensive research backgrounds. A team of 20 administrative, scientific and IT staff provide operational support, and over 50 people are employed through the School on research grants and other contracts.

The School of Pharmacy has experienced tremendous growth in student numbers, research productivity and professional pharmacy involvement over recent years. The School offers:

- Bachelor of Pharmacy Honours (4 years).
  
  The degree is taught in six integrated streams of study (Quality Use of Medicines, Dosage Form Design, Drug Discovery, Data Analysis in Pharmacy, Biological Fate of Drugs and Social and Professional Aspects of Pharmacy)

- Research-focused Major in Clinical and Experimental Therapeutics (on-course)
- Clinical Pharmacy and Pharmacy Practice (postgraduate – flexible delivery options)

The School has active research groups in areas ranging from Therapeutic Targeting, Pharmacometrics, and Pharmacy Education to Quality Use of Medicines. Research funds are obtained from government and private sources – UQ, ARC, NHMRC, Queensland
Cancer Fund, Queensland Pharmacy Research Trust, Federal and State governments and the pharmaceutical industry. In 2010, the School of Pharmacy relocated to new, purpose built facilities in Brisbane’s PACE (Pharmacy Australia Centre of Excellence) precinct adjacent to hospital, research and industry partners.

Details of the School’s activities may be accessed on the school’s web site at http://www.uq.edu.au/pharmacy

**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 appointee will work on multiple projects but spend 0.5FTE of his/her time on the design, optimising coating technology onto novel silica formulations, characterization and performance evaluation of for next-generation termiticides. The appointee will participate in the Advance Queensland Innovation Partnership Project "Nanotechnology for next-generation termiticides" and work closely with industrial partners. The appointee will also work on other projects on nanoparticles based drug delivery and biomedical application. The successful applicant will work under direct supervision of Dr. Amirali Popat. In addition to executing the proposed research plans, the appointee will also contribute to the supervision of undergraduate and postgraduate students.

**Duties**

Duties and responsibilities include, but are not limited to:

**Research**

- Work closely with other project partners (Agrisolutions QLD, AIBN, USQ) to support the project requirement of Advance Queensland Innovation Partnership Project, including data collections and data analysis.
- Designed synthesis of nanomaterials and characterization of intricate nanostructures using state of art technologies
- Develop nanomaterials-based pesticide formulations aiming for industrial purposes
- Investigate the mechanism of nanomaterial-platform technologies developed in Popat group and its application in various bio-applications
- Provide written and verbal reports (inclusive of manuscript submissions) on outputs associated with the project
- Publish papers in high-quality refereed journals and attend national / international conferences
- Assist with the preparation of external grant applications and initiation of new projects
- Collaborative with project research partners in both industry and academia
- Participate in supervision of post-graduate students
Service and Engagement

- Foster the Institute'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 NHMRC Research Fellow in The School of Pharmacy, the University of Queensland.
SELECTION CRITERIA

Essential

- A PhD (or equivalent accreditation and standing) in chemistry, materials science or biomedical engineering
- Demonstrated knowledge in materials science, pharmaceutical and agricultural active delivery
- Experience in synthesis of large-pore silica nanoparticles and its application in protein and peptide delivery
- Post doctoral experience on projects involving biology, nanomaterials and their applications in drug delivery, nanomedicine and/or delivery of agricultural actives
- Demonstrated track record of publications in high-level peer reviewed journals and conferences
- Demonstrated experience in nanomaterials synthesis, characterization and mechanism investigation – skills such as high resolution TEM, CryoTEM, TEM topography etc. is highly desirable
- Industrial experience in pharmaceutical formulation and development
- Excellent interpersonal skills including the ability to communicate effectively with research collaborators in both industrial and academia
- Ability to independently research and develop experimental procedures to solve a given problem
- Ability to work collaboratively as part of a multi-disciplinary team
- Excellent time management skills and demonstrated ability to work within deadlines
- High level of written communication skills and good organisational skills
- Ability to learn new skills and use new technologies
- Ability to lead a team of junior researchers

Desirable

- Experience in collaboration with industrial organizations
- Evidence to initiate new research directions
- Ability to perform advanced electron microscopy for characterizations of nanomaterials and cells
- Experience in writing grant applications.

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.