POSITION DESCRIPTION

Position Title: Research Fellow in Synthetic Biology, Isoprenoid Regulation and Metabolic Engineering
Organisation Unit: Australian Institute for Bioengineering and Nanotechnology
Position Number: 3043139
Type of Employment: Full time, Fixed-term (Part time hours negotiable to 70% FTE)
Classification: Research Academic Level B

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.

Organisational Environment

The University of Queensland's Australian Institute for Bioengineering and Nanotechnology (AIBN) is a dynamic multi-disciplinary research institute dedicated to developing technology to alleviate societal problems in the areas of health, energy, manufacturing and environmental sustainability. AIBN brings together the skills of more than 450 world-class researchers complimented by an extensive suite of integrated facilities, working at the intersection of biology, chemistry, engineering and computer modelling. With a reputation for delivering translational science, AIBN conducts research at the forefront of emerging technologies, and has developed strong collaborations with leading members of industry, academia and government. AIBN goes beyond basic research to develop the growth of innovative industries for the benefit of the Queensland and Australian economies. Information about the Institute can be accessed on the Institute’s web site at http://www.aibn.uq.edu.au/.

AIBN 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 AIBN Women in Science web site at http://www.aibn.uq.edu.au/women.

The Vickers Group has an established track record in synthetic biology, isoprenoid metabolism/biology, and metabolic engineering. We use advanced systems and synthetic biology approaches to (a) understand metabolic regulation of the isoprenoid group of natural products, and (b) engineer production of industrially-useful biochemicals. We work in yeast, cyanobacteria, E. coli, and plants; this provides us with a variety of different organisms in which to answer questions and solve problems. We are part of the CSIRO-University of Queensland Synthetic Biology Alliance, a new initiative that will see significant growth in the immediate future. As part of this initiative, we are building on-site biofoundry capabilities. Members of the Alliance enjoy Visiting Scientist status at CSIRO, and, through this, access to CSIRO's exceptional facilities. We aim to provide a supportive collegial and social environment that delivers a great vocational experience as well as an excellent scientific experience; we value good team players and exceptional science.

Associate Professor Vickers holds a joint appointment with the Commonwealth Science and Industry Research Organisation (CSIRO), Australia's Federal research organisation, as Director of the CSIRO Synthetic Biology Future Science Platform, a $40 million research and development program aimed at expanding Australia’s capability in synthetic biology. She was founding President of Synthetic Biology Australasia and continues to serve on the SBA Executive.

Vickers Group Website: www.claudiavickers.org
CSIRO SynBioFSP: research.csiro.au/synthetic-biology-fsp/
Synthetic Biology Australasia synbioaustralasia.org/
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](http://www.uq.edu.au/current-staff/working-at-uq) outlines the position classification standards for Levels A to E.

**DUTY STATEMENT**

**Primary Purpose of Position**

The primary purpose of this position is to grow capability in synthetic biology as it applies to isoprenoid metabolic regulation and engineering. The Research Fellow will work closely with Associate Professor Vickers to support the group research program technically and intellectually, as well as developing their own research program in an aligned area. Time allocation between these areas will be negotiated with the successful applicant.

**Duties**

Duties and responsibilities include, but are not limited to:

**Research**

- Work semi-autonomously in collaboration with the principle investigator (PI) and other members of the research group
- Assist in research group management
- Develop a research program in synthetic biology and isoprenoid biology, metabolism, regulation, engineering, and/or related field(s)
- Conduct literature reviews in the appropriate area(s)
- Conduct cutting-edge research and publish scholarly papers
- Contribute to the supervision of undergraduate and postgraduate research students
- Work with colleagues in the development of joint research projects
- Maintain accurate and comprehensive records of laboratory research
- Provide written and verbal reports (inclusive of manuscript submissions) on outputs associated with the project, inclusive of associated data analyses
- Participate in applications for external research funding
- Maintain high standards of scientific research, cleanliness, and health and safety
- Maintain absolute confidentiality regarding the results of the project where appropriate and when requested
Service and Engagement

- 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
- 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
- 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 Associate Professor Claudia Vickers.

SELECTION CRITERIA

Essential

- PhD and post-doctoral experience in isoprenoid biology, metabolism, regulation, engineering, and/or related field(s)
- Expertise in synthetic biology, molecular biology, biochemistry, analytical chemistry, and/or related disciplines.
- Demonstrated ability to plan and execute research independently, manage multiple research projects, and operate to a milestone-driven research plan
- A strong track record in publication in international scholarly journals
- High level collaboration, communication, and inter-personal skills - including excellent writing skills and the ability to work with other staff and students to develop their skills
- Experience in supervision of graduate and undergraduate research students
- Evidence of success in attracting research grant/fellowship funding

Desirable

- Experience in protein engineering or metabolic pathway engineering.
- Experience in liaising and collaborating with external research groups to develop co-operative research projects.
- Experience working with industry partners
- Ability to operate in an intellectual property (IP)-secure environment.

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 intended as a full-time position; however flexible working arrangements, including a fractional appointment with a minimum of 0.7 FTE may be negotiated.

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