

POSITION DESCRIPTION

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| Position Title: | Postdoctoral Research Fellow |
| Organisation Unit: | School of Biological Sciences, Faculty of Science |
| Position Number: | New |
| Type of Employment: | Full time, Fixed term for 3 years |
| Classification: | Academic Research Level A |

THE UNIVERSITY OF QUEENSLAND

The University of Queensland (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 (40), the US News Best Global Universities Rankings (42), QS World University Rankings (47), Academic Ranking of World Universities (54), and the Times Higher Education World University Rankings (66). 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 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 53,000-plus strong student community includes more than 16,400 postgraduate scholars and more than 17,000 international students from 135 countries, adding to its proud 260,000-plus alumni. The University has more than 6,600 academic and professional staff (full-time equivalent) and a \$2.15 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 a [track record](#) in commercialisation of our innovation with major technologies employed across the globe and integral to gross product sales of \$1billion+.

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 **School of Biological Sciences** is part of the Faculty of Science and is one of the largest and most successful of its type in Australia, with 49 full-time academic staff, and over 200 enrolled PhD students. The School has broad expertise across ecology and evolution, molecular and quantitative genetics, paleobiology, developmental biology, behaviour, plant and animal physiology, and conservation biology. Our research programs involve a diverse

array of taxa, ranging across microbes, animals and plants, including a particular focus in the areas of marine biology and entomology. Unique opportunities for biological research and teaching are provided by our proximity to a stunning array of marine and terrestrial subtropical habitats and their endemic biodiversity. A number of research programs in the School take advantage of major model-organism systems, including *Drosophila*, *C. elegans*, and *Arabidopsis*, and many include a strong quantitative and modelling focus.

Further information and details of the research interests of academic staff may be accessed on the school's web site at <http://www.biology.uq.edu.au>

Diversity and Inclusion

The School recognizes and values equity and diversity, and encourages applications from any individual who meets the requirements of this position irrespective of gender, sexuality, race, ethnicity, religion, disability, age or other protected attributes. The School strives to provide an inclusive working environment, and along with the University is committed to supporting staff with family and caring responsibilities by providing policies, programs and initiatives to help balance work and family responsibilities.

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

This position is supported by Australian Research Council funding to conduct research on how the environment influences the fate of cells over an animal's life, and how this influence originated in animal evolution. The animal system that is core to the project is the marine sponge *Amphimedon queenslandica*, which is supported by extensive biological, genomic and transcriptomic resources across multiple life cycle stages and experimental contexts, in both the field and laboratory. This is a focal species in the Marine Genomics Lab led by Professors Sandie Degnan and Bernard Degnan.

The postdoctoral research fellow will be part of a team of researchers working on how cell state changes are induced through the interplay of environmental and endogenous signals at metamorphosis, and will be expected to make substantial contributions to experimental design and research ideas, collection and analysis of data, and the writing of papers. In particular, they will take a leading role in (i) the design and implementation of experiments, (ii) the generation and analysis of chromatin-state and transcriptome data at cellular and organismal levels under experimental conditions, (iii) the interpretation of results in cellular, organismal and evolutionary contexts, and (iv) in the timely writing and production of high-quality manuscripts, presentations and reports.

This position requires both molecular wet lab and bioinformatic computational skills, as well as high-level written and oral communication skills. There will also opportunities to assist with the supervision of undergraduate, Honours and PhD students, to attend and present at relevant conferences.

Applicants should also refer to the [UQ Academic Criteria for Performance policy](#). This policy applies to staff at levels A to E, across all of the academic categories - Teaching and Research, Teaching Focussed, Research Focussed and Clinical Academic.

Duties

Duties and responsibilities include, but are not limited to:

Research

- Work with Chief Investigators and other members of the Marine Genomics Lab to achieve the stated goals of the ARC-funded project
- Contribute substantially to the design, development and implementation of molecular and computational research relating to cell state analyses
- Contribute substantially to and lead in the analysis of data sets
- Contribute substantially to and lead in the writing and publishing of scientific papers of a standard suitable for high quality international journals
- Provide authoritative advice within your area of specialisation
- Assist with the supervision of PhD, Masters, Honours and undergraduate students, as a formally acknowledged co-advisor wherever appropriate
- Attend and present research at relevant conferences

Service, Administration and Engagement

- Liaise with Chief Investigators, other postdoctoral associates and students to assist with management of a molecular laboratory and associated computing resources
- Play a substantial role in organising 'omics data generation and analysis
- Contribute positively to the lab community by participating in lab meetings, encouraging discussion amongst lab members, and generally leading by example
- Engage with the broader School of Biological Sciences community both as a representative of the Marine Genomics Lab, and as appropriate to your own professional and personal development
- 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, which will commence in the second half of 2021, reports to Professors Bernard Degnan and Sandie Degnan, Chief Investigators in the Marine Genomics Lab.

SELECTION CRITERIA

- PhD in an area of the biological sciences, with extensive pre-doctoral and/or postdoctoral experience in molecular, cell and/or developmental biology, and bioinformatics
- Demonstrated understanding of the principles of animal development and evolution, and ability to manipulate, analyse and visualise genes and cells during embryogenesis and metamorphosis
- Demonstrated ability to generate and analyse genomic, transcriptome and chromatin-state datasets, especially at the level of individual cells
- Demonstrated ability to analyse, write-up and publish results in international journals of high-standing
- Excellent written and oral skills, and a strong publication record in relevant fields
- Strong organisational skills and attention to detail, with demonstrated ability to prioritise own workload, exercise independent judgement and work independently to meet project deadlines
- Ability to work collaboratively with colleagues, students and volunteers, with strong interpersonal skills
- Experience in contributing to supervision of undergraduate and postgraduate students in a research environment
- Commitment to upholding the University's values, and with the outstanding personal qualities of openness, respectfulness and integrity.

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>)