POSITION DESCRIPTION

Position Title: Postdoctoral Research Fellow
Organisation Unit: School of Biological Sciences
Position Number: 3022840
Type of Employment: Fixed term, Full Time
Classification: Research Academic 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 its innovation with major technologies employed across the globe and integral to gross product sales of $11billion+ (see http://uniqest.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.

The Faculty of Science is recognised as a powerhouse for some of the world's leading scientists, teachers, science programs and commercial outcomes. The Faculty is one of the largest Science groupings in Australia, with approximately 1100 (equivalent full-time) staff, and about 7500 (equivalent full-time) students.

Throughout its Schools and Centres, the Faculty unites the disciplines of agriculture and animals, biomedical and biological sciences, chemistry, earth sciences, food sciences, geography, marine science, maths and physics, the environment and veterinary science.

With strong links between the enabling and applied sciences, UQ researchers and graduates are working on a wide range of groundbreaking projects from the molecular characterisation of drug resistant bacteria that affect piglets through to finding better treatments for illness and rehabilitation of the environment.

Information about the Faculty may be accessed on the Faculty's website:
http://www.science.uq.edu.au/

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.

Prof Mark Blows and Dr Katrina McGuigan have a number of on-going collaborative research projects in evolutionary quantitative genetics. Our primary research focus is on how genetic variances and covariances change under selection and different environmental conditions, and how multivariate quantitative genetics can be used to predict the direction of evolutionary responses in laboratory and field populations. We work with members of the Drosophila serrata species complex, which is found in rainforest along the east coast of Australia. Currently funded research projects in the lab are using artificial selection and experimental evolution to determine how genetic variation in multiple traits evolves under selection, and to characterise the mutational input into these multi-trait phenotypes. This work includes a molecular genetic component with, for example, work underway to acquire genomic data for individuals within a large, pedigreed, outbred population.

Further information and details of the research interests of academic staff may be accessed on the school’s website at http://www.biology.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
DUTY STATEMENT

Primary Purpose of Position

To oversee the successful running of all collaborative Drosophila research projects within the Blows/McGuigan laboratories.

Duties

Duties and responsibilities include, but are not limited to:

Teaching and Learning
- Consult with the graduate research candidates as appropriate and support training of postgraduate students within the laboratory.

Research
- Participate in the design experiments in Drosophila serrata to address questions about the evolution of genetic variation.
- To implement these experiments in the laboratory, collect and analyse the resultant data.
- Write and publish academic articles.

Administration
- Carry out administrative tasks necessary to support project work.
- Supervise work of research assistants

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 Dr Katrina McGuigan and supervises Research Assistants.
SELECTION CRITERIA

**Essential**
- PhD in a relevant discipline (Evolutionary Biology, Quantitative Genetics or similar).
- Research experience in evolutionary quantitative genetics is essential.
- Ability to conduct large quantitative genetic experiments and manage the resultant large datasets
- Ability to implement data analysis using packages in R and/or SAS.
- Proven ability to complete and publish high quality research work
- Ability to work collaboratively in team environments.
- The ability to work with a high degree of autonomy.
- Willingness and ability to accept responsibility and exercise judgment and initiative
- High-level inter-personal and communication skills.

**Desirable**
- Experience in Bioinformatic analyses of genomic sequence data, including alignment and SNP calling.
- Experience running large experiments with *Drosophila serrata*.

**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](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 to the contact person listed in the job advertisement.