



POSITION DESCRIPTION

POSITION TITLE	Research Fellow
POSITION NUMBER	00059601
POSITION LEVEL	Research Fellow, Grade 1 (RF1)
GROUP	Griffith Sciences
ELEMENT	Griffith Institute for Drug Discovery
EMPLOYMENT TYPE	Fixed term, Full-time
EFFECTIVE DATE	November 2018

THE GROUP

Griffith Sciences is one of the four academic groups of the University and has an international reputation for excellence in learning and teaching, research and professional practice. The Group hosts three schools – Engineering and Built Environment, Information and Communication Technology and Environment and Sciences along with five research institutes and three centres.

From what could be the world's first malaria vaccine—now at the human trial stage—to the first photo of a single atom's shadow, Griffith researchers are at the forefront of discovery. Working in our world-class research centres, institutes and schools, our researchers are driven to better understand our world and improve people's lives.

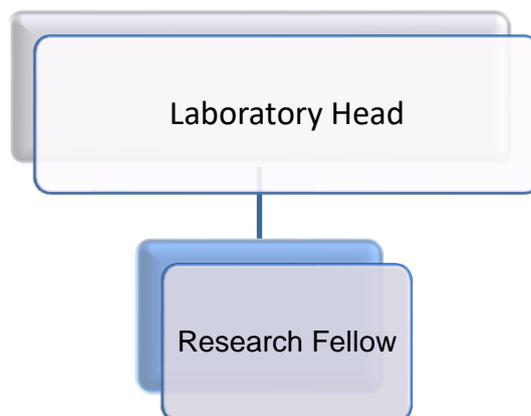
We have distinctive, world-class areas of expertise in environmental sustainability, water science, drug discovery and infectious diseases, climate change adaptation, artificial intelligence, physical sciences and emerging research areas such as micro- and nanotechnology and advanced manufacturing. We form strong partnerships with industry to undertake applied research that has the potential for commercialisation and positive impacts for the wider community.

THE INSTITUTE

Griffith Institute for Drug Discovery (GRIDD), part of Griffith Sciences, is dedicated to developing innovative new solutions for devastating conditions including cancer, drug resistance and infectious disease. To achieve this our research leaders innovate at the cutting-edge of chemistry and biology. GRIDDs core values are excellence, integrity, collegiality and respect, while GRIDD is a champion of gender equity in science, technology, engineering, maths and medicine.

The Drug Discovery Laboratory, led by Professor Ronald J Quinn AM FTSE FRACI, is seeking a Research Fellow to work on an industry funded project investigating novel applications of native mass spectrometry. Native mass spectrometry offers the detection of ligand – protein complexes with high selectivity. The technique detects unmodified compound in the presence of intact folded proteins.

REPORTING RELATIONSHIPS



POSITION OBJECTIVES

The Research Fellow will be a member of the team responsible for assessing and applying native mass spectrometry within the drug discovery pipeline. This will include performing state of the art mode of action and target identification. The position will be located at GRIDD, Nathan campus, Brisbane.

KEY ACCOUNTABILITIES

- Contribute to the research objectives of the Institute by exploring mechanisms of action for small molecules using native MS. Specifically, investigate the binding site of small molecule leads using competitive studies and examine the post-translational modification (PTM) preference of small molecule binders.
- Develop MS methods for membrane proteins by exploring the detection of membrane proteins in various detergents/matrices, perform small molecule binding studies using tool molecules singles and pooled, and pilot screen membrane protein target with fractions from natural product library.
- Use native MS for target identification. Specifically, optimise the detection of the mixture of proteins, detect small molecule binding in a mixture of proteins and pilot hit validation of compounds in the mixture of proteins.
- Develop a good publication record in high impact, international, esteemed peer-reviewed journals.
- Characterising ligand binding mechanisms to protein using native MS (can be membrane or cytosolic).
- Determine small molecule targets from cell lysates of various cell lines, optimise percentages of proteins visualised, treat cells with covalent modifier and detect the protein target.
- Maintain a laboratory journal to record all experiments.
- Manage the preparation and formulation of presentations and research reports to the collaborating industry partner.
- Assist in mentoring and supervision of research higher degree students.
- Ensure compliance with relevant legislation and University policies and procedures, including research ethics, equity and health & safety, laboratory standards and exhibit good practice in relation to same.
- Ensure fair, ethical and professional work practices in accordance with the University Code of Conduct.

SELECTION CRITERIA

Essential:

- PhD or equivalent qualifications/work experience in mass spectrometry.
- Demonstrated experience in mass spectrometry.
- Demonstrated experience with preparation of proteins from cell lysates.
- Demonstrated ability to meet deadlines.
- Demonstrated high level interpersonal skills as well as verbal and written communication skills.
- Publication record commensurate with qualifications, experience and opportunity.
- Demonstrated ability to work independently and as a team member.

Desirable:

- Ability to conduct collaborative research in multidisciplinary and/or multi-institutional teams.
- Experience in native mass spectrometry.
- Experience in protein mass spectrometry such as proteomics.
- Mass spectrometry hands-on operation experience.
- Mass spectrometry maintenance, pumps etc.
- Experience in protein purification.

BENEFITS AND CONDITIONS

The following links provide access to information regarding the range of benefits enjoyed by Griffith staff and also key information regarding employment conditions.

BENEFITS	CONDITIONS
<ul style="list-style-type: none">• Education Assistance for General staff• Health plan• Salary Packaging• Superannuation	<ul style="list-style-type: none">• Code of Conduct• Academic Staff Enterprise Agreement• Professional and Support Staff Enterprise Agreement• Fairwork Australia Information Statement

Griffith is committed to diversity and inclusion for people from all backgrounds and identities and committed to the recognition, values and contribution of the First People of this nation.

Griffith offers professional development opportunities to support employees in their career progression and offers an excellent working environment that supports flexible working arrangements.

For more benefits and conditions information please refer to the web link below:
[Griffith University | Pay, conditions and benefits > Employment](#)