



Research Fellow

Department/Unit	Department of Physiology & Monash Biomedicine Discovery Institute
Faculty/Division	Medicine, Nursing and Health Sciences
Classification	Level A
Work location	Clayton campus
Date document created or updated	October 2017

Organisational context

Everyone needs a platform to launch a satisfying career. At Monash, we give you the space and support to take your career in all kinds of exciting new directions. You'll have access to quality research, infrastructure and learning facilities, opportunities to collaborate internationally, as well as the grants you'll need to publish your work. We're a university full of energetic and enthusiastic minds, driven to challenge what's expected, expand what we know, and learn from other inspiring, empowering thinkers. Discover more at www.monash.edu

The **Faculty of Medicine, Nursing and Health Sciences** is the University's largest research faculty. World-class researchers work across disciplines including laboratory-based medical science, applied clinical research, and social and public health research. The Faculty is home to a number of leading medical and biomedical research institutes and groups, and has contributed to advances in many crucial areas. Our expertise in life sciences and biomedicine is recognised both nationally and internationally. From a teaching perspective, our education curriculum covers a range of disciplines, including medicine, nursing, radiography and medical imaging, nutrition & dietetics, paramedic studies, biomedical sciences, physiotherapy, occupational therapy, behavioural neurosciences and social work. We take pride in delivering outstanding education in all courses, in opening students to the possibilities offered by newly discovered knowledge and in providing a nurturing and caring environment.

To learn more about the Faculty, please visit www.med.monash.edu.au/

The **School of Biomedical Sciences and Monash Biomedicine Discovery Institute** is one of the largest and most dynamic biomedical research and teaching environments in Australia. The school and its cognate Departments of Anatomy and Developmental Biology, Biochemistry and Molecular Biology, Microbiology, Pharmacology and Physiology, comprise over 120 research groups and deliver discipline-focused teaching into our flagship Biomedical Science Degree, the Bachelor of Science Degree, as well as the Medical School and various Health-related Degree Programs. We pride ourselves on an excellent and evolving teaching curriculum and our teaching space is about to be transformed by a new \$80 million dollar biomedical teaching building. Opening in 2019, the new building will provide world-class teaching and learning space for Biomedical Sciences.

All research staff in the School are also a member of the **Monash Biomedicine Discovery Institute (BDI)**. The BDI comprises six inter-disciplinary health-focused research Programs, each led by a research leader in the field. The BDI Programs include, Infection and Immunity, Cancer, Cardiovascular Disease, Development and Stem Cells, Metabolic Disease and Obesity and Neuroscience. The BDI works closely with clinical and drug development precincts at Monash and has a number of major industry partnerships to facilitate the translation of our research.

The focus of the BDI Neuroscience program is to pursue excellence in discovery research and on high-impact studies of the organisation and function of the nervous system, with potential for translation through collaborations with clinical and engineering partners. The excellence of Neuroscience research at Monash has been recognised by award of the highest ranking classification (5; “well above world standard”) by the Australian Government, in three successive cycles of the ERA (Excellence in Research) assessment. Neuroscientists at the BDI benefit from co-location with the Australian Research Council Centre of Excellence for Integrative Brain Function, the Monash Institute of Cognitive and Clinical Neuroscience, and the Australian Regenerative Medicine Institute.

The School and BDI comprise over 120 research teams that publish over 700 papers in international journals every year. Annual research income is over \$50 million, the vast majority of which comes from the NHMRC and ARC. For more information about the School of Biomedical Sciences, please visit our website at www.monash.edu/discovery-institute and www.med.monash.edu.au/sobs/

The Department of Physiology is one of five Departments of the School of Biomedical Sciences. Its goal is to further knowledge in the field of animal physiology and to communicate that knowledge effectively to students, professionals in the field and to the community at large. The Department seeks to achieve these objectives by conducting vigorous and expanding research programs, and by fostering excellence in teaching.

Research within the Department of Physiology covers a wide range of integrative, cellular and molecular physiology, with particular strengths in sensory and systems neurosciences, cardiovascular and renal physiology, and metabolic disease.

Further details about the department can be found at: www.med.monash.edu.au/physiology/

Position purpose

The Research Fellow works on innovative research projects to identify pathological changes in nociceptive circuits and pharmacological modulation of signalling in rodent models of chronic pain. This role will investigate synaptic transmission and circuit activity using slice electrophysiology, calcium imaging, and optogenetics. The incumbent will be part of a group that investigates signalling changes that happen within pain circuits during the development of chronic pain. Our goal is to understand these pathological adaptations in order to discover new therapeutic targets and more effective analgesics.

The Research Fellow is also expected to contribute to and develop research projects within the research team, and produce high-quality publications.

Reporting Line: This position reports to the Head of the Pain Mechanisms Laboratory

Supervisory responsibilities: This position will involve co-supervision of honours, masters or PhD students

Financial delegation and/or budget responsibilities: Not applicable

Key responsibilities

A **Level A** research-only academic shall work with support, guidance and/or direction from staff classified at Level B and above and with an increasing degree of autonomy as the research academic gains in skill and experience.

Specific duties required of a Level A research-only academic may include:

1. The conduct of research under limited supervision either as a member of a team or, where appropriate, independently and the production or contribution to the production of conference and seminar papers and publications from that research
2. Involvement in professional activities including, subject to availability of funds, attendance at conferences and seminars in the field of expertise
3. Limited administrative functions primarily connected with the area of research of the academic;
4. Experimental design and operation of advanced laboratory and technical equipment or conduct of advanced research procedures
5. Attendance at meetings associated with research or the work of the organisational unit to which the research is connected and/or at departmental, school and/or faculty meetings and/or membership of a limited number of committees
6. Advice within the field of the staff member's research to postgraduate students

Key selection criteria

Education/Qualifications

1. The incumbent should possess:
 - a PhD in neuroscience, physiology, pharmacology or a related discipline from a recognised university or equivalent qualifications and research experience in the area; or
 - an equivalent combination of relevant experience and/or education/training.

Knowledge and Skills

2. Expertise in patch-clamp electrophysiology
3. Interest in learning and developing new skills and techniques
4. Enthusiasm and ability to work independently in a research environment (with limited supervision) and as part of a team
5. The ability to prepare and communicate the aims and outputs of research projects in a range of formats including formal and informal oral presentations, refereed research papers and reports and evidence of experience in scientific writing and publishing
6. Well-developed computer literacy (i.e. word processing and use of databases)
7. Good organisational and record keeping skills

Other job related information

- Travel (e.g. to other campuses of the University) may be required
- Out of hours work (including evenings and weekends)

Legal compliance

Ensure you are aware of and adhere to legislation and University policy relevant to the duties undertaken, including: Equal Employment Opportunity, supporting equity and fairness; Occupational Health and Safety, supporting a safe workplace; Conflict of Interest (including Conflict of Interest in Research); Paid Outside Work; Privacy; Research Conduct; and Staff/Student Relationships.