



# RESEARCH FELLOW (PHYSIOLOGY)

DEPARTMENT/UNIT	Department of Physiology
FACULTY/DIVISION	Faculty of Medicine, Nursing and Health Sciences
CLASSIFICATION	Level A
DESIGNATED CAMPUS OR LOCATION	Clayton campus

## 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](http://www.monash.edu).

The **Faculty of Medicine, Nursing and Health Sciences**, is the largest faculty at Monash University, and offers the most comprehensive suite of professional health training in Victoria. We consistently rank in the top 40 universities worldwide for clinical, pre-clinical and health sciences.

We want to improve the human condition. That is our vision - it has no expiration date. Through academic health centres, other translational models and by educating the healthcare workforce of the future, our staff, students and alumni directly improve quality of life.

Setting the global health care agenda, the Faculty aspires to lead in all areas of research activity and influence local, national and international policy to improve health and social outcomes and health inequalities. We've made a major impact in the world of medical research and become globally recognised for our quality education of over 41,000 doctors, nurses, and allied health professionals.

We are ambitious and aim to maintain our position as a leading international medical research university. We're recognised for the breadth and depth of our research, for our commitment to translational research, for the quality and scale of our research capability, and as a thriving biotechnology hub. To learn more about the Faculty, please visit [www.monash.edu/medicine](http://www.monash.edu/medicine).

The **Monash Biomedicine Discovery Institute (BDI)** is one of the largest and most dynamic biomedical research and teaching environments in Australia. The Institute 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 Bachelor of 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 provide world-class teaching and learning space for Biomedical Sciences.

The BDI comprises six inter-disciplinary health-focused research Programs, each led by a renowned leader in the field. The BDI programs include Infection and Immunity, Cancer, Cardiovascular Disease, Development and Stem Cells, Metabolism, Diabetes 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.

For more information about the BDI please visit our website at [www.monash.edu/discovery-institute](http://www.monash.edu/discovery-institute).

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. It is anticipated that the Department will play an important role in providing research underpinning the new heart hospital to be built on the Clayton campus.

Further details about the department can be found at: [www.monash.edu/discovery-institute/departments/physiology](http://www.monash.edu/discovery-institute/departments/physiology).

## POSITION PURPOSE

---

The Research Fellow (Physiology) will be a highly motivated patch-clamp electrophysiologist in the Pain Mechanisms Laboratory in the Department of Physiology. Research in our group is focussed on the changes in neuronal signalling that drive chronic pain, particularly at the level of the spinal cord. Our goal is to discover novel strategies to target and reverse increased neuronal signalling in neuropathic pain, in order to discover new and effective analgesics.

This position will be working on projects investigating synaptic and intrinsic activity within the dorsal horn in spinal cord slice from rodent models of neuropathic pain. In some projects slice electrophysiology will be combined with calcium imaging, optogenetics pharmacological modulation. The Research Fellow will have strong expertise in slice patch-clamp electrophysiology and experience in rodent behavioural studies, immunohistochemistry and imaging.

**Reporting Line:** The position reports to Head of Pain Mechanisms Laboratory

**Supervisory Responsibilities:** This position provides co-supervision of Honours, Masters or PhD students

**Financial Delegation:** Not applicable

**Budgetary Responsibilities:** Not applicable

## KEY RESPONSIBILITIES

---

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

1. To conduct research under limited supervision both independently and as a member of the team, contributing to the production of research publications and conference presentations
2. Experimental design and operation of advanced laboratory and technical equipment or conduct of advanced research procedures
3. Contribution to teaching undergraduate research students and postgraduate students in the laboratory
4. Involvement in professional activities including, subject to availability of funds, attendance at conferences and seminars in the field of expertise

5. Limited administrative functions primarily connected with the area of research of the academic
6. Development of a limited amount of research-related material for teaching or other purposes with appropriate guidance from other staff
7. Experimental design and operation of advanced laboratory and technical equipment or conduct of advanced research procedures
8. 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
9. Advice within the field of the staff member's research to postgraduate students
10. Other duties as directed from time to time

## **KEY SELECTION CRITERIA**

---

### **Education/Qualifications**

1. The appointee will have:
  - A doctoral qualification in neuroscience, physiology, pharmacology or a related discipline from a recognised university or equivalent qualifications and research experience.

### **Knowledge and Skills**

2. Expertise in slice patch-clamp electrophysiology (documented evidence of this skill, for example: publications, thesis chapters or manuscripts in preparation will be requested for shortlisted applications)
3. Demonstrated analytical and manuscript preparation skills
4. Ability to solve complex problems
5. Well-developed planning and organisational skills, with the ability to prioritise multiple tasks and set and meet deadlines
6. Excellent written communication and verbal communication skills with proven ability to produce clear, succinct reports and documents
7. A demonstrated awareness of the principles of confidentiality, privacy and information handling
8. A demonstrated capacity to work in a collegiate manner with other staff in the workplace
9. Demonstrated computer literacy and proficiency in the production of high level work using software such as Microsoft Office applications and specified university software programs, with the capability and willingness to learn new packages as appropriate

## **OTHER JOB RELATED INFORMATION**

---

- Travel to other campuses of the University may be required
- There may be a requirement to work additional hours from time to time
- There may be peak periods of work during which taking of leave may be restricted

## **GOVERNANCE**

---

Monash University expects staff to appropriately balance risk and reward in a manner that is sustainable to its long-term future, contribute to a culture of honesty and integrity, and provide an environment that is safe, secure and inclusive. Ensure you are aware of and adhere to University policies relevant to the duties undertaken and the values of the University. This is a standard which the University sees as the benchmark for all of its activities in Australia and internationally.