



# POSTDOCTORAL FELLOW

DEPARTMENT/UNIT Australian Regenerative Medicine Institute

FACULTY/DIVISION Medicine Nursing and Health Sciences

CLASSIFICATION Level A

**DESIGNATED CAMPUS OR LOCATION** Clayton campus

## ORGANISATIONAL CONTEXT

At <u>Monash</u>, work feels different. There's a sense of belonging, from contributing to something groundbreaking – a place where great things happen. You know you're part of something special and purposeful because, like Monash, your ambitions drive you to make change.

We have a clear purpose to deliver groundbreaking intensive research; a world-class education; a global ecosystem of enterprise – and we activate these to address some of the <u>challenges</u> of the age, Climate Change, Thriving Communities and Geopolitical Security.

We welcome and value difference and <u>diversity</u>. When you come to work, you can be yourself, be a change-maker and develop your career in exciting ways with curious, energetic, inspiring and committed people and teams driven to make an impact – just like you.

Together with our <u>commitment to academic freedom</u>, you will have access to quality research facilities, infrastructure, world class teaching spaces, and international collaboration opportunities.

We champion an <u>inclusive workplace culture</u> for our staff regardless of ethnicity or cultural background. We have also worked to improve <u>gender equality</u> for more than 30 years. Join the pursuit of our purpose to build a better future for ourselves and our communities – <u>#Changelt</u> with us.

The Faculty of **Medicine, Nursing and Health Sciences** is the largest faculty at Monash University, a global university with campuses across Victoria and international locations in Indonesia, Malaysia, China, India and Italy.

Our Faculty offers the most comprehensive suite of professional health training in Victoria, consistently ranked 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. By educating the current and future healthcare workforce, and undertaking medical research, both discovery and clinical, our students, staff and alumni all work to directly improve people's quality of life, reduce health inequality and promote greater health and social outcomes.

We're globally recognised for our quality education of over 63,000 doctors, nurses, and allied health professionals and health researchers. The future health of our communities is underpinned by the sustained excellence of our education and research capabilities.

We are ambitious and committed to maintaining our position as a leading international medical research and teaching university. We're recognised for the quality of our graduates, the scale and depth of our research, our commitment to translational research, and as a thriving biotechnology hub. To learn more about the Faculty, please visit <a href="https://www.monash.edu/medicine">www.monash.edu/medicine</a>.

Our Faculty includes four Sub-Faculties: Health Sciences, Clinical and Molecular Medicine, Biomedical Medicines, and Translational Medicine and Public Health.

Established through a joint venture between Monash University and the Victorian Government, the **Australian Regenerative Medicine Institute** (ARMI) builds on the University's existing strengths in biomedical research, and supports the critical infrastructure required to deliver the next generation of discoveries in regenerative medicine.

ARMI is located at one of the world's largest regenerative medicine and stem cell research centres, at the Clayton Campus. Its location offers a highly stimulating biomedical research environment allowing Institute researchers to work closely with other university research organisations including the Monash Institute for Medical Engineering (MIME) and Biomedical Discovery Institute (BDI) and CSIRO, one of Australia's leading multi-disciplinary research institutions.

ARMI's Mission is to address the unanswered questions with a multi-centre, cross disciplinary and highly focused approach, for the development of innovative clinical protocols as well as the pursuit of rapid commercial transfer of its technologies related to regenerative medicine around key research pipelines; Heart and muscle development and regeneration, Immunity and Regeneration, Stem cells, Cancer and Regeneration and Neural regeneration. ARMI scientists are focused on unravelling the basic mechanisms of the regenerative process, enabling doctors to prevent, halt and reverse damage to vital organs due to disease, injury or genetic conditions.

To learn more about us and the work we do, please visit our website.

#### **POSITION PURPOSE**

A Level A research-only academic is expected to contribute towards the research effort of the University and to develop their research expertise through the pursuit of defined projects relevant to the particular field of research.

The Calegari group has pioneered methods allowing the expansion of endogenous neural stem cells in the mammalian brain (<u>Lange</u>). This was important to identify the progenitor subtypes promoting cortical expansion during development and evolution (<u>Nonaka</u>) as well as increase adult neurogenesis throughout life (<u>Artegiani</u>). Most importantly, the Calegari groups has recently found that such expansion of endogenous neural stem cells can be used to promote sensory discrimination, improve cognitive performance, and rejuvenate hippocampal function (<u>Bragado</u>, <u>Berdugo</u>). Together with the successful candidate, the Calegari lab will aim to reveal the mechanisms underlying such improvements in brain function as well as to exploit neurogenesis to rescue brain deficits associated to aging or disease.

The successful candidate will be responsible of planning and executing projects in the context of adult neurogenesis in coordination with the primary research group leader and while overseeing the work of a research assistant, and/or students, as appropriate. In close interaction with the primary research group leader, but with a degree of independence, the candidate will lead the

project in its entirely from the setting up of instrumentation, planning and execution of the experiments, interpretation of the data, publication of the results as well, whenever relevant, secure additional funding to support its continuity.

Reporting Line: The position reports to Professor in ARMI

**Supervisory Responsibilities:** This position provides direct supervision to a technical assistant, and/or students, depending on the phase of the project and necessities

Financial Delegation: Not applicable

Budgetary Responsibilities: Not applicable

#### **KEY RESPONSIBILITIES**

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.** Development of a limited amount of research-related material for teaching or other purposes with appropriate guidance from other staff
- **5.** Occasional contributions to teaching in relation to their research project(s)
- **6.** Experimental design and operation of advanced laboratory and technical equipment or conduct of advanced research procedures
- 7. 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
- **8.** Advice within the field of the staff member's research to postgraduate students
- 9. Other duties as directed from time to time

#### **KEY SELECTION CRITERIA**

#### **Education/Qualifications**

- **1.** The appointee will have:
  - A doctoral qualification in the relevant discipline or a closely related field.

### **Knowledge and Skills**

- 2. Demonstrated analytical and manuscript preparation skills; including a track record of refereed research publications in international peer-reviewed journals
- **3.** Ability to solve complex problems by using discretion, innovation and the exercise diagnostic skills and/or expertise
- **4.** Well-developed planning and organisational skills, with the ability to prioritise multiple tasks and set and meet deadlines
- **5.** Excellent written communication and verbal communication skills with proven ability to produce clear, succinct reports and documents

- 6. A demonstrated awareness of the principles of confidentiality, privacy and information handling
- 7. A demonstrated capacity to work in a collegiate manner with other staff in the workplace
- **8.** 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
- **9.** Demonstrated experience in the field of Neuroscience in any (ideally more!) of the following areas including: Molecular Cell Biology, Developmental/Systems/Cognitive/Computational Neuroscience, Physiology and/or handling of mammalian experimental animal models
- **10.** Ability to set up electrophysiology instrumentation for in vivo recording of brain activity is an asset

#### 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.