



POSITION DESCRIPTION

Department of Psychiatry
Faculty of Medicine, Dentistry and Health Sciences

Research Fellow in Neuroimaging and Computational Neuroscience

POSITION NO	0062692
CLASSIFICATION	Level A or Level B
SALARY	Level A - \$83,468 - \$113,262 (pro-rata) Level B - \$119,231 - \$141,581 (pro-rata)
SUPERANNUATION	Employer contribution of 17%
WORKING HOURS	0.8 to Full-Time (0.8 to 1.0 FTE)
BASIS OF EMPLOYMENT	Fixed-term position available for 2 years Fixed term contract type: Externally funded.
OTHER BENEFITS	https://about.unimelb.edu.au/careers/staff-benefits
HOW TO APPLY	Online applications are preferred. Go to http://about.unimelb.edu.au/careers , select the relevant option ('Current Opportunities' or 'Jobs available to current staff'), then find the position by title or number.
CONTACT FOR ENQUIRIES ONLY	Ben Harrison Email habj@unimelb.edu.au <i>Please do not send your application to this contact</i>

For information about working for the University of Melbourne, visit our website:
about.unimelb.edu.au/careers

Acknowledgement of Country

The University of Melbourne acknowledges the Traditional Owners of the unceded land on which we work, learn and live: the Wurundjeri Woi Wurrung and Bunurong peoples (Burnley, Fishermans Bend, Parkville, Southbank and Werribee campuses), the Yorta Yorta Nation (Dookie and Shepparton campuses), and the Dja Dja Wurrung people (Creswick campus).

The University also acknowledges and is grateful to the Traditional Owners, Elders and Knowledge Holders of all Indigenous nations and clans who have been instrumental in our reconciliation journey.

We recognise the unique place held by Aboriginal and Torres Strait Islander peoples as the original owners and custodians of the lands and waterways across the Australian continent, with histories of continuous connection dating back more than 60,000 years. We also acknowledge their enduring cultural practices of caring for Country.

We pay respect to Elders past, present and future, and acknowledge the importance of Indigenous knowledge in the Academy. As a community of researchers, teachers, professional staff and students we are privileged to work and learn every day with Indigenous colleagues and partners.

Position Summary

We are seeking to appoint a post-doctoral research fellow in human neuroimaging and computational neuroscience to join the Department of Psychiatry, University of Melbourne. The focus of this role will be to support the Principal Investigators of a newly funded NHMRC Centre of Research Excellence into anxiety-related disorders (incl., PTSD) and their treatment. The broad mission statement of the CRE is to leverage advances in neuroscience research to improve the outcomes of exposure-based therapies for these disorders.

The fellow will be required to lead advanced computational analyses of new and existing functional magnetic resonance imaging (fMRI) studies in healthy and clinical populations. Applicants with a strong background in human fear/anxiety neuroscience research will be favoured.

We foster a values-based culture of innovation and creativity to enhance the research performance of the University and to achieve excellence in teaching and research outcomes. We invest in developing the careers and wellbeing of our students and staff and expect all our leaders to live our values of:

- ▶ Collaboration and teamwork
- ▶ Compassion
- ▶ Respect
- ▶ Integrity
- ▶ Accountability

1. Key Responsibilities

1.1 RESEARCH AND RESEARCH TRAINING

- ▶ Lead and coordinate advanced computational analyses of fMRI data collected from ongoing and new research projects within the NHMRC Centre of Research Excellence (i.e., using computational methods, including machine learning, network analyses, and graph theory, to extract meaningful insights from neuroimaging data).

- ▶ Integrate neuroimaging data with clinical, behavioural, and psychophysiological measures to identify biomarkers and predictors of treatment response.
- ▶ Prepare high-quality manuscripts for publication in peer-reviewed journals and present research findings at national and international conferences.
- ▶ Contribute to grant writing and funding applications to support ongoing research initiatives.

1.2 LEADERSHIP AND SERVICE

- ▶ Collaborate closely with Principal Investigators, clinicians, and other research staff within the Department of Psychiatry and the NHMRC Centre of Research Excellence.
- ▶ Engage in knowledge translation activities to disseminate research findings to clinicians, policymakers, and the broader scientific community.
- ▶ Foster a collaborative and inclusive research environment by actively participating in team meetings, seminars, and research discussions.
- ▶ Mentor and supervise graduate students, research assistants, and junior staff members.

1.3 RESPONSIBILITY AND COMPLIANCE

- ▶ Maintain a sound knowledge of current University Policy and Procedures, and reliably follow these or provide compliant advice to others;
- ▶ Reliably follow communications protocols and/or policies as appropriate.
- ▶ Occupational Health and Safety (OH&S) and Environmental Health and Safety (EH&S) responsibilities as outlined in Section 4.
- ▶ Behavioural Expectations - All staff are expected to maintain the following behaviours:
 - ▶ Treat everyone equitably; act fairly with staff and demonstrate respect for diversity.
 - ▶ Be an effective team player who is cooperative and gains the trust and support of staff, peers and clients through collaboration.
 - ▶ Create ethics applications and report to the ethics committees.

2. Selection Criteria

2.1 ESSENTIAL

- ▶ A Ph.D. in neuroscience, psychology, biomedical engineering, computer science, or a related field.
- ▶ Expertise in human neuroimaging techniques, particularly fMRI.
- ▶ Demonstrated experience in advanced computational analyses of neuroimaging data, including, machine learning, network analyses, and graph theory.
- ▶ Proficiency in programming languages commonly used in neuroimaging research (e.g., Python, MATLAB, R).
- ▶ Excellent written and oral communication skills, with a track record of peer-reviewed publications and conference presentations.
- ▶ Ability to work effectively both independently and collaboratively within a multidisciplinary team environment.

2.2 DESIRABLE

- ▶ Strong background in human fear/anxiety neuroscience research.
- ▶ Experience working on ultra-high field MRI (e.g., 7 Tesla) platforms.
- ▶ Experience interacting with clinical populations.
- ▶ Proficiency in coding/designing fMRI paradigms.
- ▶ A current Australian driver's license.

2.3 SPECIAL REQUIREMENTS OF THE ROLE

- ▶ Unrestricted right to live and work in Australia.
- ▶ This position is based in Parkville and includes flexibility to work from home as required. Travel to other local and interstate study sites may be required.

3. Equal Opportunity, Diversity and Inclusion

The University is an equal opportunity employer and is committed to providing a workplace free from all forms of unlawful discrimination, harassment, bullying, vilification and victimisation. The University makes decisions on employment, promotion, and reward on the basis of merit.

The University is committed to all aspects of equal opportunity, diversity and inclusion in the workplace and to providing all staff, students, contractors, honorary appointees, volunteers and visitors with a safe, respectful and rewarding environment free from all forms of unlawful discrimination, harassment, vilification and victimisation. This commitment is set out in the Advancing Melbourne strategy that addresses diversity and inclusion, equal employment opportunity, discrimination, sexual harassment, bullying and appropriate workplace behaviour. All staff are required to comply with all University policies.

The University values diversity because we recognise that the differences in our people's age, race, ethnicity, culture, gender, nationality, sexual orientation, physical ability and background bring richness to our work environment. Consequently, the People Strategy sets out the strategic aim to drive diversity and inclusion across the University to create an environment where the compounding benefits of a diverse workforce are recognised as vital in our continuous desire to strive for excellence and reach the targets of Advancing Melbourne.

4. Occupational Health and Safety (OHS)

All staff are required to take reasonable care for their own health and safety and that of other personnel who may be affected by their conduct.

OHS responsibilities applicable to positions are published at:

<https://safety.unimelb.edu.au/people/community/responsibilities-of-personnel>

These include general staff responsibilities and those additional responsibilities that apply for Managers and Supervisors and other Personnel.

5. Other Information

5.1 DEPARTMENT OF PSYCHIATRY

<http://psychiatry.unimelb.edu.au>

The Department of Psychiatry at the University of Melbourne was established in the 1960s. It is one of the largest Departments in the Melbourne Medical School. There are about 120 academic and professional staff, 140 honorary staff and 50 students pursuing research degrees from Honours, Masters, and PhD programs. A further 240 students are enrolled in graduate coursework programs, including the flagship Master of Psychiatry program. The Department plays a key role in the medical curriculum of the graduate Doctor of Medicine (MD) program, providing rotations in mental health for medical students and teaching in other sections of the course. The Department also offers opportunities for students undertaking research projects in the MD course.

The Department is located across a broad reach of Melbourne, including teaching and research units at Austin Health, Royal Melbourne Hospital, St Vincent's Health, Northern Health and Western Health. The Department also has units at two private hospitals: Albert Road Clinic (Ramsay Health Care) and The Melbourne Clinic (Healthscope).

The Department's research focuses on improving our understanding and treatment of mental health disorders across the lifespan. It covers a broad range of psychiatric research, including prediction and biomarker research, neuropsychiatry, psychopharmacology, neuroimaging, psychosocial research, economic evaluation, ethics, psychiatric epidemiology, and mental health service delivery.

5.2 MELBOURNE MEDICAL SCHOOL

www.medicine.unimelb.edu.au

Established in 1862, Melbourne Medical School (MMS) in the Faculty of Medicine, Dentistry and Health Sciences at The University of Melbourne is the oldest medical school in Australia. It is internationally renowned for global leadership in teaching and training, health research, policy and practice. MMS is ranked 14th in the world (Times Higher Education World University Rankings 2022 for clinical, pre-clinical and health), has strong academic partnerships and ground-breaking collaborative research programs with leading public and private hospitals, as well as leading medical research institutes and centres in Australia and internationally.

MMS spans all major fields of medicine and is comprised of thirteen clinical departments:

- ▶ Baker Department of Cardiometabolic Health;
- ▶ Clinical Pathology;
- ▶ Critical Care;
- ▶ General Practice and Primary Care;
- ▶ Medical Education;
- ▶ Infectious Diseases;
- ▶ Medicine;
- ▶ Obstetrics, Gynaecology and Newborn Health;
- ▶ Paediatrics;
- ▶ Psychiatry;
- ▶ Radiology;
- ▶ Rural Health; and
- ▶ Surgery.

MMS has more than 1,200 academic and professional staff members located at the Parkville campus or embedded within health services throughout metropolitan Melbourne and rural Victoria. Staff are privileged to work alongside more than 2,296 honorary appointees from the health sector who generously contribute their time, knowledge, research and clinical expertise.

MMS is committed to improving community wellbeing through the discovery and application of new knowledge. With annual research income of \$165 million, the School's research effort is highly collaborative, spanning research programs from basic to translational. The School has research collaborations across the 47 partner organisations in the vibrant Melbourne Biomedical Precinct, as well as nationally and internationally. These partnerships enable medical advances to impact healthcare delivery as rapidly and seamlessly as possible.

The School's flagship Doctor of Medicine (MD) degree was the first Masters level entry-to-practice qualification of its kind developed in Australia, setting a new benchmark in medical education. Now, the new curriculum launched in 2022 has created more responsive, modular, technology-enhanced learning for state-of-the-art curriculum delivery. Continuous research and discovery options, and an ability to tailor the degree, allows each student to gain deeper experience in areas of greatest interest. The MD Rural Pathway offers students the opportunity to undertake their entire program in rural Victoria, with a \$6.5 million expansion of facilities in Shepparton to accommodate this. There is also an expanded range of joint degree pathways on offer. The School utilises the Department of General Practice and Primary Care's continually expanding network of general practitioners and primary healthcare providers in the community to ensure that MD students are also provided with quality community-based medical education.

In addition to the MD, MMS has an ever-expanding portfolio of other vocationally oriented programs. These teach research skills, leadership and continuing professional development in specific disciplines. An emphasis on the clinician-scientist career trajectory – with training, support and ongoing career pathways at graduate and postgraduate levels – is central to the School's development of future leaders in all aspects of healthcare, education, research and policy. MMS has over 600 higher degree by research candidates located both within Departments and across its network of partners.

School staff and honorary appointees lead and participate in public debate and advocacy around key health issues and policy based on the MMS values of commitment, integrity, compassion, respect and service. The School also offers a range of initiatives and programs in support of its diverse and inclusive culture: <https://medicine.unimelb.edu.au/about/diversity-and-inclusion> MMS is always looking to recruit talented individuals across a wide range of medical disciplines which include leadership roles. This presents a wonderful opportunity for appointees to help drive the strategy, growth and continued excellence of Australia's leading medical school.

5.3 FACULTY OF MEDICINE, DENTISTRY AND HEALTH SCIENCES

www.mdhs.unimelb.edu.au

The Faculty of Medicine, Dentistry & Health Sciences is made up of 6 schools. It has an enviable research record and is the University of Melbourne's largest faculty in terms of management of financial resources, employment of academic and professional staff, teaching of undergraduate and postgraduate (including research higher degree) students and the conduct of basic and applied research. The Faculty's annual revenue is approximately \$750m with approximately \$400m income related to research activities.

The Faculty has a student teaching load in excess of 8,500 equivalent full-time students including approximately 1,500 research higher degree students. The Faculty has approximately

3,000 staff comprising 800 professional staff and 2,200 research and teaching staff (plus approximately 4,000 honorary staff)

5.4 THE UNIVERSITY OF MELBOURNE

Established in 1853, the University of Melbourne is a leading international university with a tradition of excellence in teaching and research. The main campus in Parkville is recognised as the hub of Australia's premier knowledge precinct comprising eight hospitals, many leading research institutes and a wide-range of knowledge-based industries. With outstanding performance in international rankings, the University is at the forefront of higher education in the Asia-Pacific region and the world.

The University employs people of outstanding calibre and offers a unique environment where staff are valued and rewarded.

Further information about working at The University of Melbourne is available at <http://about.unimelb.edu.au/careers>

5.5 ADVANCING MELBOURNE

The University's strategic direction is grounded in its purpose. While its expression may change, our purpose is enduring: to benefit society through the transformative impact of education and research. Together, the vision and purpose inform the focus and scale of our aspirations for the coming decade.

Advancing Melbourne reflects the University's commitment to its people, its place, and its partners. Our aspiration for 2030 is to be known as a world-leading and globally connected Australian university, with our students at the heart of everything we do.

- ▶ We will offer students a distinctive and outstanding education and experience, preparing them for success as leaders, change agents and global citizens.
- ▶ We will be recognised locally and globally for our leadership on matters of national and global importance, through outstanding research and scholarship and a commitment to collaboration.
- ▶ We will be empowered by our sense of place and connections with communities. We will take opportunities to advance both the University and the City of Melbourne in close collaboration and synergy.
- ▶ We will deliver this through building a brilliant, diverse and vibrant University community, with strong connections to those we serve.

The means for achieving these goals include the development of the University of Melbourne's academic and professional staff and the capabilities needed to support a modern, world-class university. Those means require a commitment to ongoing financial sustainability and an ambitious infrastructure program which will reshape the campus and our contribution to the communities we engage with. This strategy, and the priorities proposed, is centred around five intersecting themes; place, community, education, discovery and global.

5.6 GOVERNANCE

The Vice Chancellor is the Chief Executive Officer of the University and responsible to Council for the good management of the University.

Comprehensive information about the University of Melbourne and its governance structure is available at <https://about.unimelb.edu.au/strategy/governance>