



POSITION DESCRIPTION

Department of Psychiatry - Melbourne Neuropsychiatry Centre
Faculty of Medicine, Dentistry, and Health Sciences

Animal Neuroimaging Research Fellow

POSITION NO	0057508
CLASSIFICATION	Level A
SALARY	\$97,558 - \$104,717 p.a.
SUPERANNUATION	Employer contribution of 17%
WORKING HOURS	Full time
BASIS OF EMPLOYMENT	Fixed term available to 31 December 2023 Fixed term contract type: Externally funded contract of Employment
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	Antonia Merritt Tel +61 3 8344 9675 Email astuart@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 would like to acknowledge and pay respect to the Traditional Owners of the lands upon which our campuses are situated, the Wurundjeri and Boon Wurrung peoples, the Yorta Yorta Nation, the Dja Dja Wurrung people. We acknowledge that the land on which we meet and learn was the place of age-old ceremonies, of celebration, initiation and renewal, and that the local Aboriginal peoples have had and continue to have a unique role in the life of these lands.

Position Summary

The Melbourne Neuropsychiatry Centre (MNC) is undertaking leading research in psychiatric disorders with an emphasis on longitudinal brain imaging studies to identify neurobiological risk and resilience markers. Together with researchers from the Monash Institute of Pharmaceutical Sciences and the University of Queensland, the University of Melbourne successfully obtained a Program Grant that is currently in its first year of funding. This initiative builds on previous pioneering work in order to address the following overarching goals: 1) improving understanding of how drugs interact with G-Protein Coupling Receptors (GPCRs) to achieve diverse pharmacology; 2) improving understanding of the link between receptor and cellular behaviour, signaling and disease efficacy; and 3) increasing understanding of drivers of disease, to better treat specific symptom domains and increase understanding of the interplay of disease context on drug responses.

Within this program of work, the MNC leads multiple projects relating to translational biology. Specifically, the Program aims to map brain-structure-function relationships and molecular signatures across developmental stages, the impact of insults at each of the stages, and the appropriate choice of pharmacological intervention to ameliorate their impact. This work builds on the human studies undertaken at MNC, which has led to novel animal models of neurodevelopment factors relevant to behaviour and cognition.

The Animal Neuroimaging Research Fellow will work closely with the MNC scientific director, other Program Grant investigators and key collaborators to collect and analyse animal (mouse) neuroimaging data obtained as part of the Program Grant initiative. The incumbent will be expected to contribute scientific knowledge and expertise, establish PhD scholarships in this area, and to actively engage in the wider scientific community through conference presentations and peer reviewed publications.

While this position is advertised for a 12-month fixed term contract initially, investigators expect that funding will be available for future contracts.

1. Key Responsibilities

- ▶ Participate in research independently and as a member of a research team.
- ▶ Design and analyse Program Grant animal imaging MRI data with a mixture of hypothesis-driven and exploratory statistical approaches as determined by the scientific director and the Program Grant investigators.
- ▶ Contribute to publications arising from scholarship and research, such as publication in peer reviewed journals and preparation of seminar papers.
- ▶ Source, coordinate and manage multi-disciplinary collaborations to ensure the successful completion of the research objectives.

- ▶ Maintain research data to a high standard, particularly data analysis files and related programs/scripts, and research databases.
- ▶ Involvement in project leadership in the area of behavioural neuroscience, under the guidance of investigators.
- ▶ Regular communication and reporting to the study coordinator (primary), and the chief investigator and other senior researchers (secondary).
- ▶ Collaboration on clinical research initiatives of relevance to schizophrenia and other neuropsychiatric disorders.
- ▶ Supervise research-support staff and, where appropriate, supervision of honours or postgraduate research projects within the field of the incumbent's area of research.
- ▶ Undertake administrative functions primarily associated with the area of research, including the preparation of grant applications, ethics applications and reports.
- ▶ Regular attendance at research meetings with other research staff.
- ▶ Effective demonstration and promotion of University values, including diversity and inclusion, and high standards of ethics and integrity.
- ▶ Perform Occupational Health and Safety (OH&S) and Environmental Health and Safety (EH&S) responsibilities.

2. Selection Criteria

2.1 ESSENTIAL

- ▶ A PhD in neuroimaging or related fields, with a focus on animal neuroimaging.
- ▶ Demonstrated statistical and computer programming experience especially related to animal neuroimaging methods and procedures.
- ▶ Clear demonstration of a commitment to research demonstrated by prior publications, conference presentations, and involvement in clubs and societies.
- ▶ Experience in using initiative and working with minimal supervision to achieve project objectives.
- ▶ Ability to work both independently and as part of a multidisciplinary team.
- ▶ Demonstrated excellent verbal and written communication skills for effective research collaboration and engagement.

2.2 DESIRABLE

- ▶ Experience manipulating large databases in Unix/Linux and exploratory research techniques
- ▶ Experience with the following programs: FSL (incl. FreeSurfer), SPM, OsiriX, MATLAB, MRICron, Caret, Photoshop, LaTeX
- ▶ Knowledge of neuropsychiatric disorders through prior clinical experience or research

2.3 OTHER JOB RELATED INFORMATION

- ▶ Frequent travel between collaborator centres, requiring a valid Driver's License.
- ▶ Peak periods of work during which the taking of leave may be restricted.

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 THE MELBOURNE NEUROPSYCHIATRY CENTRE (MNC)

www.mncresearch.org

The MNC is aligned with the Department of Psychiatry and provides research and clinical leadership in neuropsychiatry. It facilitates collaborative research activity with the neuroscientific community and supports teaching in the biological aspects of psychiatry, involving supervision of doctoral, postdoctoral, honours and master students both local and international.

The MNC works in collaboration with the North Western Mental Health Program, the Adult Mental Health Rehabilitation Unit, Sunshine Hospital, the Neuropsychiatry Unit at Royal Melbourne Hospital and the National Neuroscience Facility, researching into serious mental illness, in particular the areas of cognition and neuroimaging, and the management of treatment resistant schizophrenia patients.

The MNC aims to ensure that people suffering from neuropsychiatric disorders benefit from cutting edge research such that will improve management and treatment outcomes.

Research also examines the effect of these disorders on the brain and how such changes might be prevented.

5.2 THE DEPARTMENT OF PSYCHIATRY

<http://www.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 psychiatry 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. It has teaching and research units at Austin Health, St Vincent's Health, and within NorthWestern Mental Health: the latter includes units at Royal Melbourne Hospital, Sunshine Hospital, and Northern Hospital. The Department also has units at two private hospitals: Albert Road Clinic (Ramsay Health Care) and The Melbourne Clinic (Healthscope).

The Department has a number of specialist clinical research units, comprising the Academic Unit for Psychiatry of Old Age, Melbourne Neuropsychiatry Centre and Phoenix Australia (Centre for Posttraumatic Mental Health).

The Department's research focuses on improving our understanding and treatment of mental health disorders. 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.

5.3 MELBOURNE MEDICAL SCHOOL

<http://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;
- Medical Education;
- Infectious Diseases;
- Medicine;
- Obstetrics and Gynaecology;
- Paediatrics;
- Psychiatry;

- Radiology;
- Rural Health; and
- Surgery.

MMS has more than 1,000 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 2,725 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'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.

5.4 FACULTY OF MEDICINE, DENTISTRY AND HEALTH SCIENCES

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

The Faculty of Medicine, Dentistry & Health Sciences 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 2010- gross revenue was in excess of \$400M. Approximately 50% of this income relates to research activities.

The Faculty has a student teaching load in excess of 6,000 equivalent full-time students including more than 1,000 research higher degree students. The Faculty has approximately 1,600 staff comprising 500 professional staff and 1100 research and teaching staff.

5.5 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>

5.6 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.

5.7 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>