



POSITION DESCRIPTION

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

ANIMAL NEUROIMAGING RESEARCH FELLOW

POSITION NO	0048075
CLASSIFICATION	Level B
SALARY	\$98,775 - \$117,290 (pro rata for part-time)
SUPERANNUATION	Employer contribution of 9.5%
WORKING HOURS	Full time
BASIS OF EMPLOYMENT	Fixed term available for one year Fixed term contract type: Externally funded contract of Employment
OTHER BENEFITS	http://about.unimelb.edu.au/careers/working/benefits
HOW TO APPLY	Online applications are preferred. Go to http://about.unimelb.edu.au/careers , under 'Job Search and Job Alerts', select the relevant option ('Current Staff' or 'Prospective Staff'), then find the position by title or number.
CONTACT FOR ENQUIRIES ONLY	Antonia Merritt Tel +61 3 8344 9675 Email antonia.merritt@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 websites:
about.unimelb.edu.au/careers

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 will build 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.

This program of work will run for 5 years, with the MNC leading 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.

1. Key Responsibilities

1.1 RESEARCH AND RESEARCH TRAINING

- ▶ 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 publications arising from scholarship and research, such as publication of books and articles in peer reviewed journals.
- ▶ 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.
- ▶ Provide adequate research supervision, guidance and training to other members of the research team to ensure the successful completion of data analysis, and publication of research findings.

1.2 LEADERSHIP AND SERVICE

- ▶ Regular attendance at MNC's research meetings with other research staff.

- ▶ 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.
- ▶ Assistance within the broader research program, as required.
- ▶ Effective demonstration and promotion of University values, including diversity and inclusion, and high standards of ethics and integrity.
- ▶ Perform work activities relevant to the role's key accountabilities as approved by the Scientific Director of the MNC and Program Grant investigators, and commensurate to the role's classification level.
- ▶ Perform Occupational Health and Safety (OH&S) and Environmental Health and Safety (EH&S) responsibilities as outlined in Section 4.

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

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 University's People Strategy 2015-2020 and policies that address 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 Growing Esteem.

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:

<http://safety.unimelb.edu.au/topics/responsibilities/>

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)

<http://medicine.unimelb.edu.au/school-structure/psychiatry/about-us/centres-and-units/melbourne-neuropsychiatry-centre>

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.

5.1 DEPARTMENT OF PSYCHIATRY

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

The Department of Psychiatry at the University of Melbourne was established in the 1960s.

The Department is a large Department within the Melbourne Medical School. There are approximately 115 academic and professional staff, 170 honorary staff and about 45 students who are enrolled to pursue research degrees from Honours, Masters and PhD programs. A further 230 students are enrolled in graduate coursework programs, including the flagship Master of Psychiatry course. The Department's operating budget is \$5.5m and research income is \$6.9m. The Department plays a key role in the current medical curriculum for the graduate MD course in medicine, providing rotations in psychiatry for medical students and teaching in other sections of the course. The Department also offers many opportunities for students undertaking research projects in Phase 3 of the MD course, which comprises a significant research experience.

The Department has major teaching and research units at Austin Health, Melbourne Health and St. Vincent's Health. The Head of the Department of Psychiatry is the Cato Professor of Psychiatry. In addition, there are a number of research centres, offices and units and many psychiatric units within Victoria that are affiliated with the Department of Psychiatry in which academic appointees of the Department are located.

The research structure of the Department comprises: the Academic Unit for Psychiatry of Old Age; Melbourne Neuropsychiatry Centre (MNC); Phoenix Australia, Centre for Posttraumatic Mental Health and the Psychosocial Research Centre. The psychiatric units include those at the Sunshine and Northern hospitals and two private hospitals, the Albert Road Clinic (Ramsay Health Care). and the Melbourne Clinic (Healthscope). The Department of Psychiatry is involved extensively in direct clinical care delivery, development of service delivery, medical student and psychiatric trainee education and psychiatric research.

The research interests of the Department include personalised psychiatry, prediction and biomarker research in psychiatry, molecular and cellular neuropathology, neuropsychiatry, neuroimaging, neuropsychology, psychosocial research, economic evaluation, psycho-neuroendocrinology, psycho-pharmacology, psycho-oncology, ethics, psychiatric epidemiology, service delivery in mental health and a variety of psychiatric conditions including but not limited to early psychosis and youth mental health, mood disorders, anxiety disorders, personality disorders, addiction disorders, eating disorders, childhood psychiatric disorders, women's mental health, dementia and psychiatry of old age.

5.2 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. The School is ranked ninth in the world (Times Higher Education World University Rankings 2019 for clinical, pre-clinical and health), has strong academic partnerships and ground-breaking collaborative research programs with leading hospitals in both the public and private sectors, as well as with leading medical research institutes and centres, nationally and internationally.

MMS is committed to working with the communities we serve to improve health and advance health care. We will do this through our teaching, learning, research, clinical care and advocacy.

With nine clinical departments (Clinical Pathology, General Practice, Medical Education, Medicine and Radiology, Obstetrics and Gynaecology, Paediatrics, Psychiatry, Rural Health and Surgery) the MMS has over 900 academic and professional staff members who are located at the University of Melbourne's Parkville campus or are embedded within health services throughout metropolitan Melbourne and rural Victoria. In addition, MMS staff are privileged to work alongside over 2400 honorary appointees from the health sector who tirelessly contribute their time, knowledge and clinical expertise to the education of our students.

MMS delivers a suite of health-related graduate programs including the Doctor of Medicine (MD) which is the School's flagship program. It was the first Masters level entry-to-practice medicine qualification developed in Australia and set a new benchmark in medical education.

MMS is committed to improving the wellbeing of the community through the discovery and application of new knowledge. With an annual research income of \$88.5 million the research effort of the school is highly collaborative and spans basic to translational research. MMS has nearly 550 higher degree by research candidates.

School staff members also actively 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.

Under the leadership of Professor John Prins, MMS is undertaking exciting new developments including a major review of the MD curriculum, an emphasis on the clinician-scientist career trajectory (in partnership with affiliated Hospitals, Medical Research Institutes and Foundations), and a reinvigorated focus on clinically relevant research. These initiatives are being enhanced by a number of recruitment opportunities (through retirements, resignations and recent funding acquisitions) for a range of leadership positions across the School. These positions present 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

<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.

5.4 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 GROWING ESTEEM, THE MELBOURNE CURRICULUM AND RESEARCH AT MELBOURNE: ENSURING EXCELLENCE AND IMPACT TO 2025

Growing Esteem describes Melbourne's strategy to achieve its aspiration to be a public-spirited and internationally-engaged institution, highly regarded for making distinctive contributions to society in research and research training, learning and teaching, and engagement. <http://about.unimelb.edu.au/strategy-and-leadership>

The University is at the forefront of Australia's changing higher education system and offers a distinctive model of education known collectively as the Melbourne Curriculum. The new educational model, designed for an outstanding experience for all students, is based on six broad undergraduate programs followed by a graduate professional degree, research higher degree or entry directly into employment. The emphasis on academic breadth as well as disciplinary depth in the new degrees ensures that graduates will have the capacity to succeed in a world where knowledge boundaries are shifting and reforming to create new frontiers and challenges. In moving to the new model, the University is also aligning itself with the best of emerging European and Asian practice and well-established North American traditions.

The University's global aspirations seek to make significant contributions to major social, economic and environmental challenges. Accordingly, the University's research strategy *Research at Melbourne: Ensuring Excellence and Impact to 2025* aspires to a significant advancement in the excellence and impact of its research outputs.

<http://research.unimelb.edu.au/our-research/research-at-melbourne>

The strategy recognises that as a public-spirited, research-intensive institution of the future, the University must strive to make a tangible impact in Australia and the world, working across disciplinary and sectoral boundaries and building deeper and more substantive engagement with industry, collaborators and partners. While cultivating the fundamental enabling disciplines through investigator-driven research, the University has adopted three grand challenges aspiring to solve some of the most difficult problems facing our world in the next century. These Grand Challenges include:

- ▶ Understanding our place and purpose – The place and purpose grand challenge centres on understanding all aspects of our national identity, with a focus on Australia's 'place' in the Asia-Pacific region and the world, and on our 'purpose' or mission to improve all dimensions of the human condition through our research.
- ▶ Fostering health and wellbeing – The health and wellbeing grand challenge focuses on building the scale and breadth of our capabilities in population and global health;

on harnessing our contribution to the 'convergence revolution' of biomedical and health research, bringing together the life sciences, engineering and the physical sciences; and on addressing the physical, mental and social aspects of wellbeing by looking beyond the traditional boundaries of biomedicine.

- ▶ Supporting sustainability and resilience – The sustainability and resilience grand challenge addresses the critical issues of climate change, water and food security, sustainable energy and designing resilient cities and regions. In addition to the technical aspects, this grand challenge considers the physical and social functioning of cities, connecting physical phenomena with lessons from our past, and the implications of the technical solutions for economies, living patterns and behaviours.

Essential to tackling these challenges, an outstanding faculty, high performing students, wide collaboration including internationally and deep partnerships with external parties form central components of Research at Melbourne: Ensuring Excellence and Impact to 2025.

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 <http://www.unimelb.edu.au/governance>