



RESEARCH FELLOW (PET AND PET/MR NEUROIMAGING POST-DOC)

DEPARTMENT/UNIT	Psychology, Monash Institute of Cognitive & Clinical Neurosciences
FACULTY/DIVISION	Medicine, Nursing and Health Sciences
CLASSIFICATION	Level A
WORK 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.

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 monash.edu/medicine.

The **Monash School of Psychological Sciences** is ranked among the best in the world. Our School's mission is to develop students and research outcomes that make significant contributions to improving the lives of others globally. Our overarching vision is to make significant and long-lasting impact that changes the world around us, beginning in infancy and across the lifespan. Drawing on the expertise of our staff and the University's unique research platforms and technology, our mission is to sustain and build on Monash's position with world-class research and teaching in Psychology.

For more information about us and the work we do, please visit <http://www.med.monash.edu.au/psych/>.

The newly established **Monash Institute of Cognitive and Clinical Neurosciences** (MICCN; housed within the School of Psychological Sciences) will provide an exceptional research environment for discoveries that change of our understanding of the brain. Through excellent research and training, a wide network of international partners, and strong industry engagement MICCN will lay the foundation for a pipeline of discovery in areas of critical importance of the human brain and see that knowledge translated into the clinic, the workplace and the community. To learn more, please visit <http://www.monash.edu/neuro-institute>.

Monash Biomedical Imaging is a state-of-the-art research platform housing the infrastructure and expertise to undertake human and animal research across basic and clinical sciences using MRI, PET, CT, EEG, neurostimulation (TMS/tDCS), and cognitive assessment techniques. More information can be found at: <https://www.monash.edu/researchinfrastructure/mbi>.

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.

This Research Fellow position will be involved in the conduct of research projects investigating mechanisms of neurodegeneration in the human brain using Positron Emission Tomography (PET) and Magnetic Resonance Imaging (MRI). This will include performing appropriate theoretical and computational modelling work; implementing and validating experimental scanning protocols; converting, managing and undertaking statistical analysis of the imaging and behavioural data; and providing reports of the measurements and results. Related responsibilities will include undertaking routine reliability testing to ensure data quality, and ongoing optimisation of the data collection and analysis.

This position will also be responsible for analysis of Positron Emission Tomography (PET) and Magnetic Resonance Imaging (MRI) neuroimaging data acquired using the MR-PET scanner and associated technologies located at Monash Biomedical Imaging (MBI).

Reporting Line: The position reports to the Head of the Neurodegeneration Imaging Research Group and the Director of Monash Biomedical Imaging

Supervisory Responsibilities: Not applicable

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. Represent the department at committees and working groups as required, to disseminate knowledge, learn, and seek collaboration opportunity
3. Development of a limited amount of research-related material for teaching or other purposes with appropriate guidance from other staff
4. Make a significant contribution to research projects, as a team member, and independently
5. Oversee the development of experiment protocols and data acquisition and collecting information regarding scanning parameters for research projects
6. Attend meetings, seminars, workshops and conferences relevant to the academic activities of the institute
7. Offer expertise and support to MBI and MICCN research staff to support learning and professional development in the field

8. Provide guidance to undergraduate and postgraduate research students within the field of the staff member's research

KEY SELECTION CRITERIA

Education/Qualifications

1. The appointee will have:
 - A PhD in a neuroscience discipline with a focus in Positron Emission Tomography (PET), Magnetic Resonance Imaging (MRI), or other relevant discipline from a recognised university

Knowledge and Skills

2. Demonstrated awareness of the principles of confidentiality, privacy and information handling, and, demonstrated ability and commitment to working collegiately with staff, students and stakeholders
3. The ability to prepare and communicate the aims and outputs of research projects in a range of formats including formal and informal oral presentations, refereed research papers and reports
4. Well-developed computer literacy (i.e. word processing, databases and the use of Matlab, UNIX and other computing languages)
5. Ability to initiate and work collaboratively with other members of MBI and MICCN in the development of new and innovative research techniques and methods whilst also possessing the ability to work independently in a research environment
6. Familiarity and competence with experimental and data management procedures related to neuroimaging research activities
7. Familiarity and competence with molecular and structural imaging methods (e.g. PET and MRI) and application of these techniques
8. Familiarity with quantitative, functional, and/or spectroscopic imaging methods (e.g. MRS, fMRI, quantitative susceptibility mapping) and literacy in these techniques

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

LEGAL COMPLIANCE

Ensure you are aware of and adhere to legislation and University policy relevant to the duties undertaken, including: Equal Employment Opportunity, supporting equity and fairness; Occupational Health and Safety, supporting a safe workplace; Conflict of Interest (including Conflict of Interest in Research); Paid Outside Work; Privacy; Research Conduct; and Staff/Student Relationships.