Department of Microbiology and Immunology
School of Biomedical Sciences
Faculty of Medicine, Dentistry and Health Sciences

Research Assistant

POSITION NO 0042177

CLASSIFICATION Research Assistant Grade 2 (Level A)

SALARY $80,258 - $108,906 p.a. (Level A)

SUPERANNUATION Employer contribution of 17%

WORKING HOURS Full-time

BASIS OF EMPLOYMENT Fixed term position 31 December 2024
Fixed term contract type: Externally funded

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 Associate Professor Victoria Lawson
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Please do not send your application to this contact

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

The Research Assistant will conduct laboratory research in the Department of Microbiology and Immunology at the Peter Doherty Institute for Infection and Immunity under the supervision of Associate Professor Victoria Lawson (Head, Transmissible Neurodegeneration Laboratory) within the Neurological Impact of SARS-CoV-2 program and in collaboration with Dr Julie McAuley.

The research focuses on predicting the neurological impact of SARS-CoV-2 Variants of Concern and will involve preclinical and clinical evaluation of viral infection in the brain using in vivo and in vitro models of infection and patient derived material. In vitro studies will involve culture, characterization, infection and analysis of brain derived cells (neurons, astrocytes and microglia) and organoids. In vivo studies will involve analysis of the neurological effects of respiratory infection. Patient derived material will be used to identify variant specific biomarkers of neurological injury. Technical work involves cell culture, virology, animal studies, molecular biology, histology, immunology and basic computer skills.

With the support and guidance from senior academic staff, the successful candidate will be expected to design and perform experiments as well as analyse data. The Research Assistant will also be expected to undertake appropriate laboratory and departmental administrative duties.

The School of Biomedical Sciences and its Departments 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 to live by our Faculty Values of:

- Collaboration
- Compassion
- Respect
- Integrity
- Accountability
1. Key Responsibilities

1.1 RESEARCH AND RESEARCH TRAINING

- Contribute to the design, development and execution of the laboratory’s program of research on SARS-CoV-2
- Perform relevant laboratory techniques including cell culture, virus isolation, plasmid-based gene cloning, site-specific mutagenesis, RNA and DNA transfection, animal studies, RT-PCR and sequencing, Western immunoblot, ELISA, histology, immunohistochemistry and fluorescence microscopy and flow cytometry.
- Independently plan and carry out experiments focused on completion of research project aims to meet agreed timelines and milestones.
- Show ability to perform experimental techniques accurately and reproducibly
- Maintain accurate and detailed records of all experiments conducted
- Assist other researchers in carrying out experiments in order to work as a team and further the Department’s research output
- Evaluate, analyse and report results to the Principal Investigators and collaborators
- Contribute to the preparation of manuscripts for publication in peer-reviewed journals

1.2 TEACHING AND LEARNING

- Contribute to teaching, training, scientific mentoring and supervision of students and new laboratory staff as required

1.3 ENGAGEMENT

- Attend and contribute to lab meetings
- Attend and actively participate in departmental seminars, meetings and/or committees.

1.4 SERVICE AND LEADERSHIP

- Assist with administrative duties such as maintaining laboratory databases, records of training, SOPs and inventories, submission of animal ethics, human ethics and OGTR approvals
- Take a leading role in maintaining lab wash-up and cleanliness
- Contribute to the day to day organisation of the laboratory including ordering reagents, maintenance of equipment, maintain stocks of reagents
- Undertake other duties as requested by the supervisor and the Head of the Department
- Undertake Occupational Health and Safety (OH&S) and Environmental Health and Safety (EH&S) responsibilities as outlined in Section 4 and take responsibility for routine reviews of laboratory practices.

2. Selection Criteria

2.1 ESSENTIAL
 Completion of a BSc (Honours) or BBMed (Honours) degree in relevant biomedical area (pathology, virology, neuroscience).

- Proven ability to work with senior researchers and help design, perform and analyse experiments in a timely manner.
- Demonstrated ability to work as a member of a research team and interact in a courteous and effective manner with academic, administrative and support staff.
- Strong organisational skills and initiative in problem solving.
- Demonstrated ability to undertake administrative duties relating to the management of the laboratory appropriate to the level of appointment.
- Demonstrated capacity to develop expertise in research to undertake tasks with increased autonomy.
- Demonstrated ability to learn the required technical skills/aseptic techniques.
- Excellent oral and written communication skills.

### 2.2 DESIRABLE

- Handling respiratory viruses.
- Experience handling laboratory mice.
- Sound knowledge of biosafety issues in handling infectious agents.
- Experience with molecular biology and cell culture techniques such as RT-PCR, qPCR, DNA sequencing, flow cytometric analysis, maintenance of cell lines.
- Experience with Microsoft Word, Excel, PowerPoint.

### 2.3 SPECIAL REQUIREMENTS

- N/A

### 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 deserve to service 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 DEPARTMENT OF MICROBIOLOGY & IMMUNOLOGY
https://biomedicalsciences.unimelb.edu.au/departments/microbiology-Immunology
The Department of Microbiology & Immunology is one of the departments within the School of Biomedical Sciences in the Faculty of Medicine, Dentistry and Health Sciences.

5.2 THE PETER DOHERTY INSTITUTE FOR INFECTION AND IMMUNITY
www.doherty.edu.au
The Doherty Institute is a world-class institute combining research in infectious disease and immunity with teaching excellence, reference laboratory diagnostic services, epidemiology and clinical services. It is a joint venture between the University of Melbourne and Melbourne Health.
A new, purpose-built building for the Doherty Institute was completed in early 2014. The members of the Doherty include the Department of Microbiology and Immunology and the Microbiological Diagnostic Unit Public Health Laboratory of the University of Melbourne, the Victorian Nosocomial Infection Surveillance System, The Victorian Infectious Diseases Reference Laboratory, The Victorian Infectious Diseases Service, and The World Health Organisation Collaborating Centre for Reference and Research on Influenza.

5.3 SCHOOL OF BIOMEDICAL SCIENCES
https://biomedicalsciences.unimelb.edu.au/
As part of the Faculty of Medicine, Dentistry and Health Sciences since 2015, the School comprises three Departments, Departments of Anatomy and Physiology, Biochemistry and Pharmacology, and Microbiology and Immunology. It has 85 research groups across the three departments, awarding-winning teachers and more than 2500 equivalent full-time student enrolments each year.
Our Mission
Create an innovative and inclusive academic environment building on a strong legacy of world-class excellence and lay the foundation for new generations of biomedical researchers to create new knowledge and lead the revolution in biomedicine, and realise their dream of advancing human health locally and globally.

Our Vision

- Promote collegiality and an inclusive academic environment through the engagement of partners, institutes, hospitals, industries, government and the community at large.
- Cultivate the highest level of excellence in research and education.
- Attract and develop a diverse and talented academic workforce.
- Lead the revolution in biomedicine and translate research outcomes into life transforming healthcare.
- Strengthen our intellectual and technological environment through interdisciplinary interactions, integration of resources and creative thinking.
- Seize all opportunities to create the conditions for sustainability.
- Observe the highest standards of ethics and integrity.

5.4 FACULTY OF MEDICINE, DENTISTRY AND HEALTH SCIENCES

www.mdhs.unimelb.edu.au

The Faculty of Medicine, Dentistry and Health Sciences (MDHS) is Australia’s pre-eminent medical, health sciences and biomedical faculty and is recognised for its research, teaching, training, and policy leadership across all these fields.

The Faculty employs more than 3,000 staff, attracts more than 8,300 students each year and comprises six schools; 37 departments, centres and institutes; and 160 courses.

A large portion of our workforce work in hospital-based departments. We also have over 5,000 honorary staff including hospital-based staff and those in partner research institutes. Our people publish more than 10,000 peer reviewed publications every year and more than 50% of these include an international co-author.

In 2021 our research income was approximately 400M, comprising over 62% of research income for the University of Melbourne and conducting approximately 47% of all research across the University.

We are Australia’s overall leader in clinical and health, ranked 14th globally in 2022 by the Times Higher Education World University Rankings. The 2023 Academic Ranking of World Universities ranks the University of Melbourne as first in Australia in clinical medicine (14th internationally), public health (12th internationally), human biological sciences and medical technology.

The University educates more health professionals, graduates, research and higher degree students and attracts more national competitive funding than any other Australian university. The Faculty offers a suite of professional entry masters level graduate programs, including the Doctor of Medicine (MD), the Doctor of Dental Surgery (DDS), and the Doctor of Physiotherapy (DPT) in addition to a range of graduate level programs such as the Master of Public Health, Master of Primary Health Care, Master of Social Work, Master of Clinical Audiology, Master of Speech Pathology, Master of Clinical Optometry, and many more in nursing, social work, health sciences and psychology.
Over 1,400 graduate research students conduct research supervised by over 2,300 staff and honoraries across the Faculty’s six schools and in affiliated health services and research institutes. University departments are embedded in a range of health services including the Austin Hospital, Northern Hospital, Royal Melbourne Hospital, St Vincent’s Hospital, The Royal Women’s Hospital, Royal Children’s Hospital, Western Hospital, Mercy Hospital and rural partners such as Goulburn Valley Health.

Our strategic plan, Advancing Health 2030, sets out a unifying vision for the Faculty to meet the challenges of a changing world and continue to make an impact on the health and wellbeing of our communities. The strategy has been designed to support and bring to life the University’s overall Advancing Melbourne strategy. Read more at: https://mdhs.unimelb.edu.au/advancing-health-2030

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