Department of Microbiology and Immunology
School of Biomedical Sciences

Research Officer
(Postdoctoral Research Fellow)

POSITION NO 0048293
CLASSIFICATION Research Officer Grade 1, Level A
SUPERANNUATION Employer contribution of 17%
WORKING HOURS Full-time
BASIS OF EMPLOYMENT Continuing Research Contingent
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
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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

We are seeking a highly motivated post-doctoral researcher to join the group of Dr. Laura Cook, which is within the laboratory of Prof. Jose Villadangos in the Department of Microbiology and Immunology at the Peter Doherty Institute for Infection and Immunity. They will develop, under the supervision and mentorship of Dr. Cook, and the strategic guidance of Prof. Villadangos, a well-funded and supported, semi-independent research program that fits within the broad scope of the Cook group.

The research is focused on basic mechanisms of immunity using primary cells and organoid models and clinical cohort samples. The two main projects in the Cook group are “The role of human regulatory T cells within responses to pathogens” and “Immune dysfunction in Sepsis”, both with the aim to translate discoveries into novel treatment and prevention strategies to improve human health.

- The human regulatory T cell project uses complex cell culture and functional assays, including co-cultures with intestinal organoids, to understand how these cells help shape immune responses in the gut to guide design of novel treatment and prevention for infectious disease

The position requires a driven and experienced immunologist with a background in cell culture and flow cytometry. Highly competitive candidates specialised in other areas of research with a passion for translational immunology are also encouraged to apply. The postdoctoral researcher will test new approaches, design experiments, address technical problems, consult scientific literature, maintain well-documented lab record, contribute to general lab maintenance and to the preparation of research manuscripts, ethics applications and grant applications. The successful candidate will have exceptional organisational skills and possess the ability to work within a team and be a self-starter. The applicant will receive sufficient financial support for
research activities, have access to all Doherty Institute resources and facilities and have the opportunity to co-supervise PhD, Masters and Honours students.

The term of the position is for one year, with realistic prospects of renewal for up to three years subject to performance. High achieving postdoctoral researchers will receive guidance/mentoring for level B promotion within the University of Melbourne or a different institution, subject to position availability and competitiveness of the candidate. More information on the Cook group and the Villadangos laboratory can be found at:


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**

- Independently design and carry out experiments focused on completion of research project aims
- Analyse experimental data independently and in a timely manner, including qualitative and statistical analysis, and communicate this information to chief investigators and collaborators
- Maintain accurate and detailed records of all experiments conducted
- Develop effective timelines and milestones based on goals of the research programme
- Work with supervisors on project development including the formulation of new ideas and hypotheses
- Present and communicate experimental plans and their execution effectively
- Assist other researchers in carrying out experiments in order to work as a team and further the laboratory's research output
- Contribute intellectually and work towards building an independent research theme in consultation with supervisors
- Contribute to teaching, training, scientific mentoring and supervision of students and/or junior staff
- Assist with the preparation of manuscripts for publication
- Present experimental results at local, national and international forums
Seek funding opportunities such as fellowships, early career grants and travel bursaries and assist their supervisor with large grant applications.

1.2 LEADERSHIP AND SERVICE

- Prepare and submit competitive grant applications relating to the research program
- Attend and actively participate in departmental seminars, meetings and/or committee memberships
- Compliance with Occupational Health and Safety (OH&S) and Environmental Health and Safety (EH&S) responsibilities and contribute to preparation of applications and compliance by other lab members
- Contribute to preparation and compliance with human research ethics applications
- Contribute to the day-to-day running of the laboratory such as maintaining adequate supplies of all laboratory consumable items, keeping records and making regular orders as appropriate
- Perform laboratory supervisory duties as required, ensuring compliance with OHS and OGTR regulations

1.3 TEACHING AND LEARNING

- Contribute to teaching, training, scientific mentoring and supervision of students
- Supervision and training of junior research staff in the appointee's area of expertise

2. Selection Criteria

2.1 ESSENTIAL

- A PhD in Immunology, Cell Biology or related disciplines
- Strong background in immunology and/or cell biology or related areas of interest
- The ability to work with primary human tissues and/or cells according to ethical guidelines
- Sound knowledge of biosafety issues in handling infectious agents and primary human samples and ability to adhere to the principles of good laboratory practice
- Strong background in high-dimensional flow cytometry
- Excellent ability to analyse data and maintain accurate research records
- Strong organisational skills and ability to prioritise tasks to achieve project milestones
- Verifiable experience using initiative and working with minimal supervision
- Excellent written and verbal communication skills, demonstrated by presentation of research results at conferences, internal forums and through publication of manuscripts
- 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
- Track record of scientific writing, data preparation and figure preparation for publications and grant applications
2.2 DESIRABLE

- Experience with culturing primary human T cells, particularly regulatory T cells and associated functional assays
- Experience with organoids, particularly intestinal organoids, and immune cell co-culture techniques
- Experience with spectral cytometry
- Experience in molecular techniques such as CRISPR/Cas9 and/or mRNA delivery systems
- Experience with clinical trials and associated sample processing and record management
- Experience with human whole blood assays measuring phagocytosis and ROS production from granulocytes and/or myeloid cells
- Experience in analysing high dimensional flow cytometry data using dimensionality reduction and clustering algorithms

2.3 OTHER JOB RELATED INFORMATION

- Occasional work out of ordinary hours, travel, etc.

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 MICROBIOLOGY AND IMMUNOLOGY

https://biomedicalsciences.unimelb.edu.au/departments/microbiology-Immunology

The Department of Microbiology and Immunology focuses largely on understanding the immune system and on pathogens and infectious agents aiming to develop new ways to detect, control and treat infectious diseases or alternatively to manipulate the immune system to improve responses to organisms that cause infectious diseases or cancer. The Department is recognised internationally for scientific excellence and leadership across the fields of microbiology and immunology.

5.2 THE PETER DOHERTY INSTITUTE FOR INFECTION AND IMMUNITY

http://www.doherty.unimelb.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) plays a vital role in the delivery of the University of Melbourne’s Strategic Plan 2015-2020: Growing Esteem by providing current and future generations with education and research equal to the best in the world. It is Australia’s largest and leading biomedical research faculty. It employs more than 1,700 members of staff, has more than 8,000 students, and total revenue of $607 million for 2015. Reflecting the complexity of today’s global health landscape, the Faculty is made up of six different Schools and four Strategic Research Initiatives, and draws together all areas of human health, ranging from the most basic to the most applied areas of research. The Faculty contributes close to 50 per cent of research conducted at the University.

The Faculty has appointed Australia’s first Associate Dean (Indigenous Development) to lead the development and implementation of the Faculty’s Reconciliation Action Plan (RAP), which will be aligned with the broader University-wide plan. To enable the Faculty to improve its Indigenous expertise knowledge base, the Faculty’s RAP will address Indigenous employment, Indigenous student recruitment and retention, Indigenous cultural recognition and building partnerships with the Indigenous community as key areas of development.

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