

POSITION DESCRIPTION

Department of Anatomy and Physiology
Faculty of Medicine, Dentistry and Health Sciences

Postdoctoral Research Fellow in Stem Cell Therapies

POSITION NO	0064030
CLASSIFICATION	Level A
SALARY	\$83,468 - \$113,262 (pro rata for part-time)
SUPERANNUATION	Employer contribution of 17%
WORKING HOURS	Full time (1.0 FTE)
BASIS OF EMPLOYMENT	Fixed term for 3 years
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	Nick Petersen Team Lead, Talent Services Nick.petersen@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

Date Created: dd/mm/yyyy **Last Reviewed:** dd/mm/yyyy **Next Review Due:** dd/mm/yyyy

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

An exciting opportunity exists for a Postdoctoral Research Fellow to join the Enteric Neural Plasticity Laboratory in the Department of Anatomy and Physiology, University of Melbourne. We are a highly collaborative multi-disciplinary research group investigating function and plasticity of the enteric nervous system, the “second brain” in the gut that controls gastrointestinal function. Your role will support a new Medical Research Future Fund project investigating novel stem cell therapy for the treatment of paediatric gut disorders including Hirschsprung Disease and Paediatric Achalasia. You will be using several different techniques to drive this research, in particular stem cell culture, transplantation, and analysis. This position is part of a large, multi-centre collaborative research grant that will require a high level of record keeping, data integrity and communication skills to ensure compliance and transparency.

This role is predominately research related but will include some administrative duties. The position is for a 3-year period with the possibility of extension subject to funding.

This position reports to the co-heads of the Enteric Neural Plasticity Laboratory in the Department of Anatomy and Physiology: Dr Lincon Stamp and Dr Marlene Hao.

1. Key Responsibilities

1.1 RESEARCH AND RESEARCH TRAINING (IF APPLICABLE)

- ▶ Conduct research individually and as part of a team
- ▶ Handling and culture of various human induced pluripotent stem cell (hiPSC) lines, with dedication to sterile technique, stem cell differentiation and maintenance.
- ▶ Perform surgical experiments to transplant hiPSCs into the gastrointestinal tract of transgenic mouse and rat lines.
- ▶ Perform *in vivo* experiments on transgenic mouse and rat lines, including intraperitoneal and subcutaneous injections, oral gavage, gut motility assays, and animal monitoring.

- ▶ Collection and processing of gastrointestinal tissues for immunohistochemistry and histology.
- ▶ Keep accurate experimental records, analyse results and prepare data for publication.
- ▶ Provide research project updates in a timely manner to appropriate lead researcher.
- ▶ Share responsibility for maintaining and ordering consumables and keeping the laboratory in good order.
- ▶ Assist with administrative duties such as maintaining laboratory databases, records of training, SOPs and inventories.
- ▶ Interact effectively with other scientists and students working in the laboratory and assist with other projects.
- ▶ Adhere and maintain research protocols and storage of research data in keeping with the Department and University's requirements for the storage of such data including privacy and confidentiality requirements.

1.2 LEADERSHIP AND SERVICE (IF APPLICABLE)

- ▶ Supervision of undergraduate and postgraduate students, and other research support staff.
- ▶ Actively participate in laboratory meetings, and Department meetings where appropriate.
- ▶ Effective demonstration and promotion of University values including diversity and inclusion and high standards of ethics and integrity.

1.3 COMPLIANCE AND OH&S

- ▶ Maintain a sound knowledge of current University Policy and Procedures, and reliably follow these or provide compliant advice to others.
- ▶ Occupational Health and Safety (OH&S) and Environmental Health and Safety (EH&S) responsibilities as outlined in Section 3 and 4.
- ▶ Behavioural Expectations - All staff are expected to maintain the following behaviours:
 - ▶ Treat everyone equitably; act fairly with staff and demonstrate respect for diversity.
 - ▶ Be an effective team player who is cooperative and gains the trust and support of staff, peers and clients through collaboration.

2. Selection Criteria

2.1 ESSENTIAL

- ▶ PhD in biological or biomedical science
- ▶ Experience working with human stem cell cultures and sterile cell culture techniques.
- ▶ Experience working with laboratory mice and/or rats, including high levels of animal handling.
- ▶ High level organisation and time management skills, including punctuality.

- ▶ Excellent written, oral communication skills and the ability to keep accurate record keeping.
- ▶ Flexibility and ability to develop new skills.
- ▶ Able to work independently and engage in team-related activities including supervision of students and other lab members.

2.2 DESIRABLE

- ▶ Experience in sterile surgical technique on rodents.
- ▶ Experience in dissection and processing of gastrointestinal specimens (microdissection of gastrointestinal organs, embedding, and posthoc immunohistochemistry)
- ▶ Experience with confocal microscopy and image analysis.
- ▶ Experience in Molecular Biology techniques, including PCR, cloning, RNA extraction, quantification and analysis.
- ▶ Experience with and/or willingness to engage with Bioinformatic analysis tools.

2.3 OTHER JOB RELATED INFORMATION

- ▶ A willingness to work occasionally outside of normal hours (eg. occasional weekends and evenings) where the completion of laboratory experiments is deemed necessary.
- ▶ This position requires the incumbent to hold a current and valid Working with Children Check.

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 ORGANISATION UNIT

<https://biomedicalsciences.unimelb.edu.au/departments/anatomy-and-physiology>

The Department of Anatomy and Physiology is a highly successful teaching and research department within the School of Biomedical Sciences. We teach into the Bachelor of Biomedical Science and the Master of Biomedical Science through the delivery of subjects across the teaching disciplines of Anatomy, Cell & Developmental Biology, Neuroscience, and Physiology. Our teaching programs are widely recognised for their innovative approach and delivery, both through the development of online resources and in the use of student-focused, active learning approaches. Constant review and refinement of the curriculum and educational methods ensures that we best prepare students for scientific independence as they enter graduate and postgraduate professional and research careers.

The Department of Anatomy and Physiology's key research themes are Neuroscience, Metabolic and Cardiovascular Sciences, Muscle Biology and Stem Cell and Developmental Biology. We are home to 35 world-class research laboratories led by a dynamic team of forward thinkers. Through cutting-edge facilities, innovative research, training opportunities and the support of diverse funding streams, we remain at the forefront of disease-focused research.

Our synergies in teaching extend beyond award programs to custom education programs focused on health professionals and industry. These programs are supported by our Anatomical Services Unit, one of the largest donor programs in the country, and our clinical networks in the Melbourne Biomedical Precinct.

5.2 BUDGET DIVISION

<https://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 annual revenue is \$630m with approximately 55% of this income related to research activities.

The Faculty has a student teaching load in excess of 8,500 equivalent full-time students including more than 1,300 research higher degree students. The Faculty has approximately 2,195 staff comprising 642 professional staff and 1,553 research and teaching staff.

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.

5.3 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>

5.4 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.

5.5 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>