



## POSITION DESCRIPTION

**The Peter Doherty Institute for Infection and Immunity**  
Faculty of Medicine, Dentistry and Health Sciences

### Research Fellow

<b>POSITION NO</b>	0040674
<b>CLASSIFICATION</b>	Research Assistant, Level A
<b>WORK FOCUS CATEGORY</b>	Research Focused
<b>SALARY</b>	\$69,148 - \$93,830 p.a.
<b>SUPERANNUATION</b>	Employer contribution of 9.5%
<b>WORKING HOURS</b>	Full time
<b>BASIS OF EMPLOYMENT</b>	Fixed term position available to 30 June 2022 Fixed term contract type: Externally funded
<b>OTHER BENEFITS</b>	<a href="http://about.unimelb.edu.au/careers/working/benefits">http://about.unimelb.edu.au/careers/working/benefits</a>
<b>HOW TO APPLY</b>	Online applications are preferred. Go to <a href="http://about.unimelb.edu.au/careers">http://about.unimelb.edu.au/careers</a> , under 'Job Search and Job Alerts', select the relevant option ('Current Staff' or 'Prospective Staff'), then find the position by title or number.
<b>CONTACT FOR ENQUIRIES ONLY</b>	Professor Elizabeth Vincan Tel +61 3 9342 9348 Email <a href="mailto:evincan@unimelb.edu.au">evincan@unimelb.edu.au</a>  <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](http://about.unimelb.edu.au/careers)

## ***Position Summary***

- ▶ The Research Fellow will conduct laboratory research in the Doherty Institute under the supervision of the NHMRC Senior Research Fellow. The appointee will be a member of the team working on a National Health and Medical Research Council (NHMRC) project grant investigating the Wnt receptor Frizzled-7 (Fzd7) as a therapeutic target for gastrointestinal cancer. The research project will determine the therapeutic benefit of combating cancer with anti-Frizzled-7 antibodies. This project is based on strong preliminary data demonstrating that inhibition of the Wnt receptor Fzd7, genetically or with shRNA, is able to block the growth of gastric cancer cells in vitro and in vivo.

### ***1. Key Responsibilities***

#### **1.1 RESEARCH AND RESEARCH TRAINING**

- ▶ Participate in research independently and as a member of a research team
- ▶ Contribute to the development of the laboratory's research program of developing therapeutic strategies to combat cancer via the upstream components of the Wnt signal transduction pathway.
- ▶ Techniques will include but are not limited to: molecular biology and cell culture, flow cytometry, viral gene delivery systems, quantitative PCR based assays, microscopy
- ▶ Independently plan and carry out experiments focused on completion of research project aims to meet agreed timelines and milestones, including maintaining detailed records of all experiments conducted.
- ▶ Be responsible for qualitative and statistical analysis of research data
- ▶ Assist other researchers in carrying out experiments in order to work as a team and further the Department's research output
- ▶ Work towards building an independent research project
- ▶ Perform other duties as requested by the appointee's immediate supervisors consistent with responsibilities of this NHMRC funded position.
- ▶ Participate in 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
- ▶ Supervise junior research staff in the appointee's area of expertise
- ▶ Supervise honours and PhD students as required

#### **1.3 KNOWLEDGE TRANSFER**

- ▶ Attend and contribute actively to laboratory meetings
- ▶ Present experimental results at local, national and international conferences when opportunities arise
- ▶ Attend and actively participate in departmental seminars, meetings and/or committees

## 1.4 LEADERSHIP AND SERVICE

- ▶ Assist with administrative duties such as submission of human ethics and OGTR approvals and with general laboratory duties including maintenance of the laboratory and equipment and ordering of supplies
- ▶ Assist in the preparation and submission of competitive grant applications relating to the appointee's research program as required
- ▶ Undertake other duties as requested by the supervisor and the Director of the Doherty Institute.
- ▶ 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

- ▶ A PhD or progress towards a PhD in cell biology, cancer biology or a related field
- ▶ Sound knowledge of concepts in cancer cell biology and Wnt signalling
- ▶ Proficiency in basic cellular and molecular biology techniques, including loss-of-function and gain-of-function analyses, PCR, qRT-PCR, immunofluorescence confocal microscopy, DIC imaging and histochemistry, and demonstrated experience in applying these approaches to *in vivo* and *in vitro* models of cancer.
- ▶ Expertise with aseptic technique, tissue culture, *ex-vivo* organoid culture and PC2 environments.
- ▶ Demonstrated experience designing and performing experiments effectively and achieving project objectives within timelines.
- ▶ Demonstrated ability to maintain detailed accurate records of work completed and to analyse and interpret the data obtained.
- ▶ Demonstrated ability to work with limited supervision in a self-directed manner and as a member of a research team, and to interact in a courteous and effective manner with academic, administrative and support staff.
- ▶ Demonstrated ability to develop new experimental protocols and experience in trouble shooting laboratory protocols and reagents. Strong organisational skills and initiative in problem solving.
- ▶ Excellent written and verbal communication skills, demonstrated by presentation of research results at conferences, internal forums and through manuscript submissions.

### 2.2 DESIRABLE

- ▶ Intimate knowledge of the molecular mechanisms of Wnt signalling
- ▶ Expertise with mini-gut and mini-liver organoid techniques
- ▶ Demonstrated ability to work with mouse models, including intraperitoneal injection, dissection and tissue harvesting, and tumour xenograft models.
- ▶ Experience with specialised programs such as Photoshop, Illustrator, Prism

## 2.3 SPECIAL REQUIREMENTS

- ▶ Required to work with mice.

## 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 PETER DOHERTY INSTITUTE FOR INFECTION AND IMMUNITY

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

The Doherty Institute is a world-class institute combining research, teaching, public health and reference laboratory services, diagnostic services and clinical care into infectious diseases and immunity. It was officially opened in September 2014 and is a joint venture between the University of Melbourne and Melbourne Health. The Doherty Institute has a major focus on diseases that pose serious public and global health threats such as

influenza, tuberculosis, HIV, viral hepatitis, Ebola and drug resistant bacteria. The Doherty's activities are multi-disciplinary and cross-sectoral, placing great emphasis on translational research and improving clinical outcomes. Teams of scientists, clinicians and epidemiologists collaborate on a wide spectrum of activities - from basic immunology and discovery research, to the development of new vaccines and new preventative and treatment methods, to surveillance and investigation of disease outbreaks.

## 5.2 FACULTY OF MEDICINE, DENTISTRY AND HEALTH SCIENCES

[www.mdhs.unimelb.edu.au](http://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.

## 5.3 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 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*.

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