



## POSITION DESCRIPTION

Department of Physiology  
Faculty of Medicine, Dentistry and Health Sciences

### Research Assistant/Research Fellow in Liver Metabolism

POSITION NO	0049506
CLASSIFICATION	Level A
WORK FOCUS CATEGORY	Research Focused
SALARY	\$72,083 - \$97,812 p.a.
SUPERANNUATION	Employer contribution of 9.5%
WORKING HOURS	Full-time (1.0 FTE)
BASIS OF EMPLOYMENT	Fixed term position for 12 months with potential renewal for further 12 months
OTHER BENEFITS	<a href="http://about.unimelb.edu.au/careers/working/benefits">http://about.unimelb.edu.au/careers/working/benefits</a>
HOW TO APPLY	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.
CONTACT FOR ENQUIRIES ONLY	Dr Matthew Watt Tel +61 3 8344 8663 <a href="mailto:matt.watt@unimelb.edu.au">matt.watt@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 work within the Metabolism & Diabetes Laboratory and perform supervised research on an industry-funded collaborative project related to understanding mediators of non-alcoholic fatty liver disease (NAFLD) and liver fibrosis. This work will have a strong focus on assessing the effects of liver-secreted proteins on lipid metabolism, inflammation and fibrosis in various cell types. The position requires excellence in cell culture and basic molecular biology techniques, a high degree of technical competence and excellent data management and data reporting. The outcomes of this work will lead to development of novel investigative compounds for the treatment of NAFLD.

The Research Fellow role may include daily support for students, contributions publications and other laboratory outputs.

This position reports to Prof Matthew Watt.

We 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 our leaders to live our values of:

- Collaboration and teamwork
- Compassion
- Respect
- Integrity
- Accountability

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

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

- ▶ Participate in research independently and as a member of a research team.
- ▶ Grow and maintain immortalized cultured cells.
- ▶ Perform research experiments in cultured cells to assess lipid metabolism, inflammation and fibrosis. Techniques include aseptic cell culture, radioactive tracer technologies to assess substrate metabolism, RNA/protein extraction, SDS-PAGE and immunoblotting, western blotting, real-time qPCR and ELISAs.
- ▶ Develop standard operating procedures for high-throughput assessment of metabolism, inflammation and fibrosis.
- ▶ Contribute to data collection and analysis, using specialised programs for qualitative/quantitative data assessment such as Microsoft Excel and GraphPad Prism.
- ▶ The co-production of conference and seminar papers and publications and attendance and presentations at conferences and seminars where appropriate.
- ▶ The steady development of an academic research profile in the area of hepatic metabolism.
- ▶ Contribute to publications arising from scholarship and research, such as publication of manuscripts in peer reviewed journals

- ▶ Active participation in the communication and dissemination of research where appropriate

## 1.2 LEADERSHIP AND SERVICE

- ▶ Active involvement in laboratory meetings. Perform administrative and operational duties as directed, related to the conduct of safe laboratory practices, and to perform technical tasks in the laboratory.
- ▶ Effective training of research support staff where required.
- ▶ Effective demonstration and promotion of University values including diversity and inclusion and high standards of ethics and integrity.
- ▶ Occupational Health and Safety (OH&S) and Environmental Health and Safety (EH&S) responsibilities as outlined in section 5.

## 2. Selection Criteria

### 2.1 QUALIFICATIONS

- ▶ **For appointment as Research Fellow:** Completion of PhD and significant demonstrated relevant experience
- ▶ **For appointment as Research Assistant:** Honours/Masters degree in a relevant area of biomedical research such as cell biology, biochemistry, physiology, pharmacology.

### 2.2 ESSENTIAL

- ▶ Substantial experience in aseptic techniques related to mammalian tissue and cell culture, including the establishment and maintenance of immortalized cell culture lines.
- ▶ Demonstrated experience and expertise in high-throughput RNA extraction and quantitative real-time PCR, and high-throughput ELISA approaches.
- ▶ A proven ability to work with senior researchers to help design, perform and analyse experiments in a timely manner.
- ▶ Demonstrated ability to contribute to independent and team-based research.
- ▶ Demonstrated excellent verbal and written communication skills for effective research collaboration and engagement.
- ▶ Demonstrated ability to manage competing priorities and excellent time management skills.

### 2.3 DESIRABLE

- ▶ Demonstrated experience in assessment of lipid and glucose metabolism using radio-active tracer technologies.
- ▶ Demonstrated ability to articulate research through presentation in a public forum including conferences.
- ▶ Demonstrated potential to supervise or co-supervise and mentor undergraduate and, honours stage students where appropriate.

## 2.4 SPECIAL REQUIREMENTS

- ▶ A willingness to work occasionally outside of normal hours (e.g. occasional weekends and evenings) where the completion of laboratory experiments is deemed necessary.

## 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 DEPARTMENT OF PHYSIOLOGY

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

The Department of Physiology at the University of Melbourne was established in 1862 and has a proud history associated with some of the great names in Australian science. Our research explores the territory between genes and body function with special relevance to the health and diseases affecting the liver and adipose tissue, skeletal

muscle, heart and blood vessels, the brain and nerves, the gastrointestinal system and the processes of intergenerational disease transmission. Our core research themes are cardiovascular, metabolism, muscle, and neuroscience. A remarkable breadth and depth of research expertise and equipment underpins our research as exemplified by experimental models of disease, cellular and subcellular electrophysiology and imaging, cellular and molecular laboratories, and core facilities for viral vector gene research and the newly established metabolic phenotyping suite for small animals. We also have strong collaborative links with academic Departments within the School of Biomedical Sciences, research institutes, other universities both nationally and internationally and partnerships with clinical teams. We receive substantial research funding from a wide range of government and commercial sources.

Our goal is to remain at the forefront of scientific research aimed at understanding the function of the human body in health and disease, employing novel and imaginative research methods.

A second strategic goal is the ongoing development of links between our teaching and research. We invest in the professional development of our undergraduate students and equip them with critical thinking skills, knowledge and techniques useful in a range of future careers including research and academia. Physiology teaching plays a pivotal role in biomedical sciences and the major is amongst the most popular for Science or Biomedicine students. We are widely recognised for our innovation in teaching, both through the development of online resources and in the use of active learning approaches in face-to-face teaching. 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.

## 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>