

PhD Scholarship in Metabolism and Cancer Biology

A groundbreaking project that will focus on understanding metabolism in prostate cancer with a view to developing new therapies to slow prostate cancer growth.



Institution

Melbourne 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>

Department of Physiology

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

The working environment

The project will be jointly conducted in the Biology of Lipid Metabolism laboratory within the Department of Physiology at the University of Melbourne and the Prostate Cancer Research Group of the Biomedicine Discovery Institute at Monash University. Our team brings combined expertise in the study of metabolism and cancer biology. We use cutting edge molecular and functional methods to study the regulation of metabolism and cancer progression in a variety of pre-clinical experimental models of prostate cancer including organoids and patient-derived xenografts. We have access to state-of-the-art facilities in mass spectrometry, metabolomics, single cell RNA-Seq and mouse phenotyping, and maintain close links with clinical collaborators in urology, pathology and oncology.

The project- "Targeting lipid metabolism for prostate cancer therapy"

Prostate cancer is the most commonly diagnosed cancer in men, and accounts for 13% of cancer-related deaths in Australian men. There is currently no cure for advanced stage prostate cancer and a major clinical challenge is to improve the efficacy of existing therapies or discover new strategies for intervention.

This project is funded by the Cancer Council Victoria and will focus on understanding metabolism in prostate cancer to develop new therapies to slow prostate cancer growth. The candidate will apply advanced methodologies for the assessment of metabolism with genetic and pharmacological interventions in clinically relevant models of prostate cancer. The project will extend on recent pre-clinical work from our laboratories (Watt et al. *Science Translational Medicine* 11 (478), 2019) with discovery and translation being the primary focus.

The outcomes of this PhD project will provide the advance in knowledge and the first steps to strategically advance novel metabolic therapies beyond laboratory-based concept to clinical development.

The person

Applicants will have a First-Class Honours degree or equivalent and should be eligible for an Australian Postgraduate Award (APA) or equivalent. Basic expertise and experience in biomedicine or other relevant biological sciences is required, and students with experience in cancer biology and/or metabolism are especially encouraged to apply. Applicants must fulfil the PhD admission criteria for the University of Melbourne, including meeting English language requirements, and demonstrating excellent capacity and potential for research. Demonstration of research ability through publication output in peer reviewed international journals is desirable.

Further information on entry requirements

<https://study.unimelb.edu.au/find/courses/graduate/doctor-of-philosophy-medicine-dentistry-and-health-sciences/>

You must have the **right to live and work** in this location to apply for this scholarship.

Remuneration

Annual stipend \$30,600 (indexed, 2019 rate) for 3 years with the possibility of a 6 month extension

Enquiries

For all enquiries, please contact:

- Prof Matthew Watt (matt.watt@unimelb.edu.au) or
- A/Prof. Renea Taylor (renea.taylor@monash.edu).

How to apply

All applicants must supply the following documents via email to Lill Gardner at; physiology-info@unimelb.edu.au with the subject title:

APPLICATION PhD Scholarship – Your name

- A cover letter stating your skills and experiences, areas of expertise, and compelling reasons for wanting to pursue PhD studies in this program;
- Your complete Academic Records (including grades/GPA scores, and grading scale details)
- CV/Resume

Short-listed candidates will be contacted for a meeting with Prof Matthew Watt and A/Prof Renea Taylor to discuss your application and the project in more detail. If successful you will be instructed to submit an application to the Graduate School for admission.