

# PHD SCHOLARSHIP - ARC DISCOVERY PROJECT: THE MALARIA PROTEIN EXPORT MACHINERY

Centre for Molecular and Medical Research, School of Medicine,  
Faculty of Health

A PhD scholarship is available in Deakin University's Centre for Molecular and Medical Research, School of Medicine. The PhD student, under the guidance of the Chief Investigator, will initiate and conduct research on the topic of '*Functional dissection of the malaria protein export machinery*' led by Professor Tania De Koning-Ward.

The research will be conducted in conjunction with the laboratory of Dr Paul Gilson at the Burnet Institute in Melbourne. The successful applicant will be mainly based at the Geelong Warrn Ponds Campus and must be willing to carry out research at the Burnet Institute in Melbourne.

## Research Topic

Functional dissection of the malaria protein export machinery.

## Aim of the Project

*Plasmodium* parasites that cause the disease malaria reside inside erythrocytes, a very basic cell that lacks a vesicular trafficking pathway. To survive and thrive in erythrocytes, Plasmodium parasites must transport many of its own proteins into the host cell, and in a breakthrough discovery we revealed that Plasmodium have evolved a completely unique molecular translocon machinery to achieve this. This research aims to functionally dissect how this novel and essential machinery operates to transport malaria proteins into erythrocytes using a raft of genetic engineering, cell biology and biochemical techniques.

## Value and benefits

A stipend of \$26,288 per annum tax exempt for 3 years.

## Eligibility criteria

- Applicants must meet Deakin's PhD entry requirements, be enrolling full-time and hold an Honours degree (First Class) or a Master's degree with a substantial research component in a related field. Please refer to the [entry pathways](#) to higher degrees by research for further information.
- It is essential that the applicant has molecular biology expertise and has undertaken their Honours/research Master's degree in the area of microbiology or biochemistry or a related discipline.
- Expertise with cell biology and/or biochemistry is highly desirable.

- The research will be conducted in conjunction with the laboratory of Dr Paul Gilson at the Burnet Institute in Melbourne and the successful applicant will also be willing to carry out research at the Burnet Institute.
- Applications are open to Australian/New Zealand citizens and Australian permanent residents.

### How to apply

Please refer to the [Apply for a research degree](#) webpage for application information.

### Further information

If you wish to discuss your research interests and project proposal before applying, please contact Professor Tania De Koning-Ward via [email](#) or phone +61 3 522 72923.