I am currently a PhD candidate at JCU and based in PNG at the PNG Institute of Medical Research doing my research.

The aim of my research is to investigate the transmission of malaria from symptomatic and asymptomatic individuals to *An. farauti* mosquitos by conducting direct membrane feeding experiments and direct skin feeding experiments.

Here at the PNGIMR we have an established insectary where we rear *An. farauti* mosquitos and I have adapted and set up a membrane feeding assay to infect our colony mosquitoes with malaria parasites from infected individuals. We had more success with infecting our mosquitoes with *P. vivax* which puts us in unique position to test potential vaccine or antimalarials that can inhibit transmission as it is currently quite difficult to grow these parasites in a lab setting. I have submitted a manuscript for publication regarding this work (Frontiers). I also optimized the conditions that influences the feeding rate of the mosquitoes and have increased the feeding rate of the mosquitoes. This work has been published as well (Parasites and Vectors).

I am currently testing the potential inhibition of the transmission of *P. vivax* by autovaquone.

I am also interested in looking into the asymptomatic individuals within a community and how much of those can still transmit. This information will help us understand the malaria reservoir within a community how much remains undetected in the community. I am performing direct skin feeding experiments on willing community volunteers. My preliminary results revealed that of the 103 participants:

* **36% (37/103)** malaria positive by RDT or qPCR
* **49%**  **(18/37)** asymptomatic individuals
* **30% (11/37)** asymptomatic individuals fed mosquitoes
* **18% (2/11)** successfully infected the mosquitoes

I have received a seed grant from ACREME (Australian Centre of Research Excellence in Malaria Elimination) to support this work. I am currently recruiting more participants from this village with the aim of reaching at least 500 individuals.

Covid has really affected my PhD studies and as such I had applied for an extension from JCU and I would like to thank RAM for the stipend award to cover for the extension.