

Project Title:

Development of a flow cytometry-based assay for the simultaneous measurement of Malaria and G6PD status

Project Summary:

The proportion of vivax malaria among all malaria cases is increasing worldwide. In contrast to most other malaria species, vivax malaria can relapse multiple times weeks to months after the first febrile episode, causing significant morbidity and mortality among infected patients. There is observational evidence that low levels of G6PD deficiency may be protective against a malaria infection; however, available data on this are not clear.

Following a novel approach, we plan to develop a flow cytometry-based assay to determine the protective effect of low levels of G6PD deficiency against malaria. The novel assay will allow to measure malaria status and G6PD status simultaneously within the same blood sample. Development will happen at the laboratories of the Menzies School of Health Research. The development will be supported and supervised by Dr Jutta Marfurt, Dr Ben Ley and Dr Kamala Thriemer. The results of this project will be published in a peer reviewed scientific journal, with the successful applicant listed as one of the co-authors.

We offer a supportive environment within a happy team and the possibility to get involved in unique and novel research that may have a significant impact in future malaria-related research.

We are looking forward to hearing from you!

Supervisors:

- Primary: 1) Jutta Marfurt
Associate: 2) Benedikt Ley
3) Kamala Thriemer

Location of the project: Menzies School of Health Research, Darwin

- Outreach work?**
- N
- Y
- If Y, Interstate
- Remote
- International

- Type of project:**
- Hons [max **9 months** 1 FTE]
- MPH thesis [max **6 months** 1 FTE]
- MSc by research [max **2 years** 1 FTE]
- PhD [max **3-4 years** 1 FTE]

Skill base:

Essential: Good motivation, keen interest in laboratory research, and the ability to work independently.

Desirable: Previous experience in laboratory work, including experience in handling potentially infectious material (blood) is a clear asset.

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