

Custom proteins for malaria diagnostics

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A global health organization and state-of-the-art laboratory at The University of Queensland are collaborating to support the development and evaluation of point-of-care diagnostics for malaria with new custom-

made proteins.

PATH and UQ's Protein Expression Facility will supply researchers with malaria proteins to improve point-of-care diagnostic tools and help reduce the burden of malaria, which continues to affect more than 200 million people and cause more than 400,000 deaths each year.

Director of UQ's Protein Expression Facility Professor Linda Lua said the partnership would help malaria researchers develop new [diagnostic tools](#).

"New tools to enable the [development](#) of highly sensitive diagnostics are urgently needed to reduce disease and death attributable to malaria," Professor Lua said.

"PATH and UQ are pleased to announce the availability of highly specific and sensitive malaria antigen reagents for immunological tests.

"These custom proteins will facilitate the development and performance benchmarking of rapid, accurate and species-specific malaria diagnostics.

"The collaboration between PATH and UQ's Protein Expression Facility to develop and commercialize highly specific and sensitive Plasmodium antigens for immunological tests will help developers, manufacturers and academic researchers to assess the reliability of malaria [test](#) results."

Most life-threatening malaria cases are attributable to infection with Plasmodium falciparum parasites which causes liver and kidney failure, convulsions, and coma.

Professor Lua said there was an urgent need to develop diagnostic methods that are simple, sensitive, and Plasmodium species specific to

treat people with mixed parasitical infections.

Senior Scientific Director and malaria diagnostics lead in the Diagnostics Program at PATH, Dr. Gonzalo Domingo, said the accurate and rapid diagnosis of species-specific malaria infection presented a challenge in most countries where the disease was endemic.

"We are excited in our collaboration with The University of Queensland to provide custom malaria proteins that support the development of simple, sensitive immunological tests that are able to quickly and accurately differentiate Plasmodium species," Dr. Domingo said.

In PATH's role as a catalytic product development partner, PATH hopes that the availability of these proteins will de-risk and incentivise diagnostic researchers and manufacturers in developing more appropriate rapid diagnostic tests for [malaria](#).

These reagents are available for purchase and can be obtained directly from The University of Queensland's [Protein Expression Facility](#) or by submitting an inquiry to pef@uq.edu.au.

Provided by University of Queensland

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