

Japan's GHIT fund pumps \$637,000 to support antimalarial drug discovery

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The Global Health Innovative Technology Fund (GHIT Fund) - a unique public health partnership that brings Japanese know-how and investment to the global fight against infectious diseases - announced that several promising compounds have been identified as starting points for early anti-malarial drug discovery and that a new investment will take the research further.

GHIT will invest US \$637,000 in the discovery partnership between Japanese pharmaceutical company Daiichi Sankyo and the Medicines for Malaria Venture (MMV), based in Switzerland. Together, they will make and test compounds that could lead to more effective anti-malarials needed to control and eventually eliminate the disease.

In Southeast Asia, malaria is taking longer to cure using the frontline malaria drugs, artemisinin and its derivatives, and resistance has rendered many other historical anti-malarials ineffective in the region.

GHIT Fund is invigorating the global fight against malaria and the need to stay one step ahead of the parasite by supporting the identification of unique chemical compounds for their potential to tackle infectious and neglected diseases in the developing world.

This investment marks GHIT's second round of funding to support very early-stage drug research through its 'Hit-to-Lead Platform'. GHIT's Hit-to-Lead Platform invests in projects with the goal of converting drug 'hits' from the compound libraries of Japanese organizations into 'lead compounds' that show promise against infectious diseases but require further research and development before they can be tested as human drugs. The Hit-to-Lead Platform provides a bridge from early drug

discovery into GHIT's Product Development Platform, which invests in a pipeline of new tools.

In the first phase, GHIT invested in the screening of 50,000 compounds designed by Daiichi Sankyo and several 'hit' series able to inhibit the malaria parasite were identified. Scientists from the pharmaceutical firm and MMV, in collaboration with partners Professors Vicky Avery (Eskitis Institute, Griffith University) and Susan Charman (Monash University) in Australia, and Professor Elizabeth Winzeler (University of California-San Diego) in the US, will now further test these compounds for their 'drug-like' qualities with the objective of producing at least one 'lead' compound to pursue. They aim to develop a medicine to combat drug resistance and, ideally, prevent relapses often suffered by people who have two types of malaria, Plasmodium vivax and Plasmodium ovale.

Additionally, researchers are focusing on protecting people from getting malaria and blocking transmission of the parasite. 'Hits' that showed promise against multiple stages of malaria will be further developed into lead series, with the aim of ultimately delivering a candidate drug to better control and eradicate the disease.