

PRESS RELEASE

MMV and IVCC make 240 compounds available to stimulate research into new drugs and insecticides

Diverse compound collection harnesses open innovation to advance global health priorities.

This World Mosquito Day, Medicines for Malaria Venture (MMV) and the [Innovative Vector Control Consortium](#) (IVCC) launch the Global Health Priority Box to provide scientists with free access to a collection of compounds with confirmed activity against infectious and mosquito-borne diseases, and [vectors of global concern](#).

The initiative aims to spark the discovery and development of new drugs and insecticides to prepare for current and future public health threats. The box provides scientists with confirmed starting points to further advance the development of tools to tackle two of [several priorities set out by the WHO](#): drug resistance and communicable diseases.

The threat of resistance and vector-borne diseases

Vector-borne diseases, such as malaria, cause the loss of more than [700,000 lives annually](#), predominantly in regions with tropical climates in low-and-middle income countries. [Recent studies show](#), however that climate change has the potential to shift the regions in which disease-carrying mosquitoes breed, introducing new pathogens to previously unaffected areas.¹ This, coupled with the increasing prevalence of [drug-resistant pathogens](#) and [insecticide resistance](#), requires the development of new tools.

The components of the box

The structurally diverse compound collection contains three sets of compounds in various stages of discovery and development:

- 80 compounds selected by MMV and partners, with confirmed activity against [drug-resistant malaria](#). These compounds can be used to seek new biological mechanisms of action or initiate drug discovery.
- 80 compounds selected from a compound library donated by [Bristol-Myers Squibb](#) for screening against neglected and zoonotic diseases, and diseases at risk of drug resistance.
- 80 compounds selected within input from disease experts [at IVCC](#) that have been tested for activity against various vector species. This plate can be used to screen and develop compounds for vector control and transmission-blocking medicines.

An open approach

The reaction of the scientific community to the coronavirus pandemic has demonstrated that international collaboration accelerates the development of new tools. The Global Health

¹ Colon-Gonzalez, Felipe J *et al.*, Projecting the risk of mosquito-borne diseases in a warmer and more populated world: a multi-model, multi-scenario intercomparison modelling study, *The Lancet* (2021). DOI:[https://doi.org/10.1016/S2542-5196\(21\)00132-7](https://doi.org/10.1016/S2542-5196(21)00132-7).

Priority Box harnesses an open approach, inviting scientists to make screening results publicly available and to publish findings in an open access journal within 2 years following data generation. This allows for researchers around the world to build on one another's work, saving precious time and resources.

“Efforts to end infectious diseases will only succeed if we have the tools to treat and prevent them,” said Dr Timothy Wells, MMV’s Chief Scientific Officer. “Open innovation is one of the keys to unlocking drug discovery because it allows us to tap into existing knowledge and expertise and build on it collaboratively.”

Dr Nick Hamon, CEO of IVCC added, “Innovation in vector control is urgently needed because of the prevalence of insecticide resistance which is undermining the efficacy of bed nets and indoor residual sprays, the cornerstone of malaria prevention since the turn of the century. Open access to new chemistry will encourage greater collaboration across the scientific community, bringing new innovators into public health and potentially more rapid development of new vector control solutions.”

About MMV

Medicines for Malaria Venture (MMV) - MMV is a leading product development partnership (PDP) in the field of antimalarial drug research and development. Its mission is to reduce the burden of malaria in disease-endemic countries by discovering, developing and facilitating delivery of new, effective and affordable antimalarial drugs.

Since its foundation in 1999, MMV and partners have built the largest portfolio of antimalarial R&D and access projects ever assembled, have brought forward twelve new medicines and have assumed the access stewardship of a further two. An estimated 3 million lives have been saved by these MMV co-developed medicines.

MMV's success is based on its extensive partnership network of around 150 active partners including from the pharmaceutical industry, academia and endemic countries. MMV's vision is a world in which innovative medicines will cure and protect the vulnerable and under-served populations at risk of malaria, and help to ultimately eradicate this terrible disease.

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For more information, please visit <https://mmv.org> or follow on Twitter: <https://twitter.com/MedsforMalaria>

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About IVCC

IVCC is the only Product Development Partnership (PDP) working in vector control. IVCC was established in 2005, through an initial \$50million grant to the [Liverpool School of Tropical Medicine \(LSTM\)](#) from the [Bill & Melinda Gates Foundation](#), and is a registered charity in the UK. We work with stakeholders to facilitate the development of novel and improved public health insecticides and formulations to combat the rapidly growing problem of insecticide resistance. We bring together partners from industry, the public sector and academia to create new solutions to prevent disease transmission. By focusing resources and targeting practical scientific solutions we accelerate the process from innovation to impact.

IVCC works with stakeholders to facilitate the development of novel and improved public health insecticides and formulations, and provides information tools to enable their effective use. Although primarily focused on malaria, IVCC recognises that new tools and products are likely to be effective against a wide range of other vector-borne diseases.

For more information, please visit <https://www.ivcc.com>

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