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Australia develops new antimalarial drug candidate to address growing challenge of drug resistance

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The emergence of drug-resistant parasites has complicated efforts to control and eliminate malaria



Researchers in Australia have developed a new antimalarial drug candidate designed to address the growing challenge of drug resistance and potentially reduce malaria transmission.

The first-in-class clinical candidate, MK-7602, has been developed through a longstanding collaboration between Walter and Eliza Hall Institute of Medical Research (WEHI) and global biopharmaceutical company MSD (tradename of Merck & Co., Inc., Rahway, N.J., USA).

Pre-clinical research now published in *eBiomedicine*, a Lancet journal, shows the novel drug candidate targets the malaria parasite at multiple stages of its life cycle, with potential applications for both treating infections and reducing disease spread.

Since the completion of this preclinical research, results from early stage clinical trials continue to provide evidence for the potential of MK-7602 for the treatment of malaria.

The new drug candidate MK-7602 targets the most prevalent malaria parasites in humans, *Plasmodium falciparum* and *Plasmodium vivax*, and blocks two essential parasite enzymes, providing a unique dual-action strategy with the potential to reduce the risk of resistance.

The close research collaboration between WEHI and MSD, spanning almost a decade, used the advanced screening technologies at WEHI's National Drug Discovery Centre, which were instrumental in identifying and optimising the compound.

MK-7602 has since completed Phase 1 safety and tolerability studies. Further studies are needed to fully assess the efficacy and safety of MK-7602 in diverse patient populations and real-world settings.

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