Medicines for Malaria Venture
The innovative route to malaria drug development
To counteract the increasing problem of drug resistance and accelerate the elimination of malaria, Medicines for Malaria Venture (MMV) drives the discovery, development and implementation of new antimalarial drugs and treatments. Working with pharmaceutical companies, academia and public partners, MMV aims at providing affordable and equitable access to high-quality medicines for vulnerable groups at risk of malaria.

Drug resistance of antimalarial medicine posing a serious threat

In 1999, malaria killed over one million people, mainly affecting poor and vulnerable populations. At that time, the pharmaceutical industry had largely withdrawn from the active pursuit of new drugs for malaria, due to the extremely high costs involved in discovering, developing and registering pharmaceutical products. As the affected populations do not have the economic power to buy expensive treatments, there is a lack of economic incentives for pharmaceutical manufacturers to develop and launch suitable antimalarial drugs and treatments.

Between 2000 and 2020, there has been a dramatic decline in the global burden of malaria. Thanks to global efforts, around 1.5 billion cases have been prevented and deaths from malaria have fallen by 60%. Despite this progress, still around 409,000 people die from malaria every year according to the World Health Organization (WHO) and mortality rates are declining only slowly. Furthermore, drug resistance against current antimalarial medicines poses a serious risk to any further progress. In order to accelerate the elimination of malaria, intensified investment and joint efforts are required. However, research and development (R&D) investments for poverty-related diseases such as malaria still suffer from severe market failure.

High-quality medicines at an affordable price thanks to a network of over 400 partners

MMV addresses the lack of commercial incentives and drives the discovery, development and implementation of new antimalarial drugs. The aim is to provide affordable, equitable access to high-quality medicines for vulnerable groups at risk of malaria, in particular children and pregnant women. MMV is a formalised multi-stakeholder consortium based in Geneva, including public, private and academic partners as well as non-profit organisations. The foundation was launched as one of the first product development partnerships (PDPs) in 1999 with initial seed money from the Swiss Agency for Development and Cooperation (SDC) and other donors. Such partnerships aim to ensure progress in healthcare issues that neither the public nor the private sector can resolve on their own.

Over the last 20 years, a network of over 400 partners has been established, contributing technical know-how, enabling technologies, research facilities as well as funding. MMV is funded and supported by government agencies, private and corporate foundations, international organisations and private individuals. Pharmaceutical companies mainly provide access to specific molecular libraries, co-lead studies and clinical trials. The SDC’s main role is to provide the necessary co-funding to enable the piloting of innovative methods and approaches. Moreover, the SDC promotes dialogue with public, private and academic partners in order to ensure their participation in the collaboration and, consequently, an endorsement of the pharmaceutical sector to provide affordable malaria treatments.

Largest portfolio of new and innovative antimalarial medicines

Since its foundation in 1999, MMV has delivered on its mission to reinvigorate R&D on malaria drugs and established the largest portfolio of new and innovative antimalarial medicines. MMV has brought eleven new antimalarial drugs to the market and taken over the access stewardship of two more. Since 2010, 17 pre-clinical drug candidates have emerged from MMV discovery research, 15 of which have progressed into clinical development. Drugs need to be adapted to the form of the disease (e.g. severe, seasonal or relapsing malaria) as well as the patient. So for instance, pregnant women and children under five are in need of specific drug combinations.

MMV develops and tests new products right where they are needed and has therefore set up partnerships with 158 leading clinical centres across 31 malaria-endemic countries. In addition to malaria treatments, MMV also develops and provides access to prevention drugs. MMV works with different partners to protect both pregnant women and young children from malaria, in the first instance with the use and spread of prevention drugs during peak malaria months in rainy seasons. To date, MMV-supported products have saved an estimated 2.7 million lives. MMV continues its R&D efforts to address the remaining and emerging needs of vulnerable populations at the greatest risk of malaria.
Impact

Overall goal
Reduce malaria-related burden and deaths in disease-endemic countries by discovering, developing and delivering new, effective and affordable antimalarial drugs.

Value added
By mobilising the expertise and knowledge of both the private and public sector and exploiting their respective strengths, innovative and affordable drugs and antimalarial treatments can be developed to alleviate the global burden of neglected diseases, such as malaria.

Objectives achieved so far
- 430 million treatments of a child-friendly medicine called Coartem Dispersible for acute, uncomplicated malaria have been distributed.
- 205 million vials of injectable artesunate (pharmaceutical substance) for the treatment of severe malaria have been delivered.
- 536 million monthly treatment courses of sulfadoxine pyrimethamine and amodiaquine (SPAQ) have been delivered to prevent illness and death during malaria season.
- Partnerships with 158 leading clinical centres across 31 malaria-endemic countries have been established.
- 2.7 million lives have been saved thanks to MMV-supported products.

Further expected results until 2023
- Two new products approved, including medicines that serve the needs of paediatric and other vulnerable patients.
- Expansion of seasonal malaria chemoprevention (SMC) to include pilot coverage of children aged 6–10 years (so far focus has been on children aged 3 months – 5 years).
Project at a glance

**Private sector partner**
Bill & Melinda Gates Foundation (major donor, almost 60%), Novartis Pharma, GlaxoSmithKline, Sanofi, Rockefeller Foundation, among others

**Public and other partners**
Swiss Agency for Development and Cooperation (SDC), United States Agency for International Development (USAID), UK Foreign, Commonwealth and Development Office (FCDO), Netherland's Ministry of Foreign Affairs, among others

**Format of the partnership**
Formalised multi-stakeholder consortium

**Implementation**
1999–ongoing

**Financial and in-kind contribution**
- Total donations pledged to MMV since 1999: USD 920 million
- SDC financial contribution (1999–2021): CHF 27.6 million

For each dollar invested by funders, MMV received on average an additional USD 2.5 from its pharma partners, including pharma matched funding and in-kind support.

**Theme**
Health

**Geography**
Global / malaria affected countries

«By bringing together various stakeholders from both endemic and non-endemic countries, MMV has changed the way new antimalarial drugs are developed. For paediatric medicines in particular, MMV has shifted the whole paradigm by establishing partnerships to bring forward palatable, child-friendly formulations, such as Coartem Dispersible. Without MMV, such progress would have been very difficult to achieve.»

Dr. Bernhard Orgutu
Chief Research Officer
Kenya Medical Research Institute

«When children get malaria, they vomit and have such a bad fever that they can convulse and die. It’s very serious and treatment at the health centre can be very expensive. In the past, Bedy’s older sister and brothers received seasonal malaria chemoprevention (SMC) to prevent malaria. I know it works.»

Karotumay with her son Bedy, age 2

Reference of quotes and pictures: Medicines for Malaria Ventures Annual Report, 2019

More information: Competence Center for Engagement with the Private Sector
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SDC Website
Partnerships with the private sector