PA-029 **ONE MERCK FOR MALARIA PROGRAM: AN INTEGRATED R&D APPROACH TO FIGHT AGAINST MALARIA**

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Background Integrated health care approaches are the most effective ways to tackle infectious diseases such as malaria. Within its Global Health activities focusing on health issues of vulnerable populations within developing environments, Merck has launched a program named ‘One Merck for Malaria’ integrating development of new antimalarials with new sensitive diagnostic approaches together with improving access to personal protection.

Methods The first pillar of the program is based on drug discovery and development of new antimalarials. The second pillar focuses on development of diagnostics addressing the need for highly sensitive methods to identify low parasitaemia levels. The third pillar is to improve access to personal protection against malaria vectors.

Results Merck is carrying out screens and early drug discovery with its partners, Medicines for Malaria Venture (MMV, Switzerland) and H3D (University of Cape Town, South Africa),

to identify new compounds to address current gaps in existing antimalarials. Furthermore Merck is conducting regulatory pre-clinical activities to reach clinical phase 1 of a compound originated by Dundee University (UK). Based on its excellent efficacy and pharmaceutical profile shown in pre-clinical models, it is intended to be developed as a long-lasting single oral combination treatment for uncomplicated *P. falciparum* and *P. vivax*. Other research activities focusing on target identification are conducted. The portable MUSE® cytofluorometer system is launched in African countries to measure the number and % of CD4 cells. An additional set of *P. falciparum* and *P. vivax* detection kits are in development to detect type and parasitaemia levels in low blood quantities. Merck IR3535 is a widely used insect repellent being retested to assess the degree of its efficacy against various *Anopheles* carrying *P. falciparum* in Africa.

Conclusions Besides the drug and technology developments, the program covers also aspects of e-health, education, and local capacity building to complement the integrated approach being applied at Merck.