

New European-African partnership to contribute to the fight against placental malaria

€10 million mobilised by the ADVANCE-VAC4PM consortium to advance the development of a safe, effective, and affordable placental malaria vaccine to protect pregnant women and their babies

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Malaria infection during pregnancy constitutes a major health problem that can lead to the development of placental malaria, affecting particularly vulnerable demographic groups, pregnant women and babies in Africa. In 2020, approximately 11 million pregnant women (34%) were exposed to malaria infection, accounting for an estimated 200,000 infant deaths annually and 819,000 children with low birthweight^{1,2}. Placental malaria causes adverse pregnancy outcomes, including anaemia and high blood pressure in first-time pregnant women, and low birth weight, which are associated with a higher risk of foetal and neonate illness and mortality. The development of an effective, vaccine would be an excellent tool to reduce the incidence and severity of placental malaria and protect the mother and unborn child during pregnancy.

Together with a consortium of experienced and highly committed scientists from Africa and Europe, the **European Vaccine Initiative** is spearheading global efforts towards developing a safe, affordable and effective vaccine against placental malaria. Fresh funding of €10 M from the **European Commission (EC)** will provide a major boost to these efforts. The funding has been granted to the ADVANCE-VAC4PM project that aims to **accelerate the development of two promising vaccine candidates against placental malaria, PRIMVAC**, which was discovered at INSERM, FR and **PAMVAC** from the University of Copenhagen, DK. These two vaccine candidates have previously been shown to be safe, well-tolerated and able to induce a strong and functional immune response in clinical trials in Europe and Africa^{3,4}.

ADVANCE-VAC4PM will advance the clinical development of PRIMVAC and PAMVAC, i) by using a novel vaccine platform based on capsid-Virus-Like Particles (cVLPs) and ii) by evaluating co-administration of PRIMVAC and PAMVAC-cVLP with the ultimate goal to improve and broaden the vaccine-induced immune response. These activities will complement efforts currently undertaken by the consortium partners in the [VAC4PM project](#) with the financial support of the **Japanese Global Health Innovation Technology (GHIT) Fund**.



¹ [World Malaria Report 2020 \(who.int\)](#)

² [Moore KA, et al. doi: 10.1016/S2214-109X\(17\)30340-6](#)

³ [Mordmüller B et al. Clin Infect Dis. 2019 Oct 15;69\(9\):1509-1516](#)

⁴ [Sirima SB et al. Lancet Infect Dis. 2020 May;20\(5\):585-597](#)

“With this support from the European Commission we take a major step towards developing an effective and affordable vaccine against placental malaria, a condition that affects pregnant women in low-income countries, some of the most vulnerable people in the world”, says Ole F. Olesen, Executive Director of the European Vaccine Initiative.

The clinical trial activities will be embedded in capacity building efforts including workshops, training of MSc/PhD students, a mentorship program for African early career researchers and strengthening of clinical and immunology laboratory capacity. Digital tools will be developed for monitoring pregnancy outcomes in preparation of future efficacy trials. Modelling the cost-effectiveness, feasibility and acceptability of placental malaria vaccines will also be conducted.

The ADVANCE-VAC4PM project brings together a multidisciplinary consortium of ten leading institutions from Europe and Africa with complementary expertise and proven track records in malaria vaccine research and development, including research organizations, universities, one SME and one product development partnership (PDP).

ADVANCE-VAC4PM Consortium Partners:

[AdaptVac ApS](#) (AdaptVac, Denmark), [European Vaccine Initiative](#) (EVI, Germany), [Fondation pour la Recherche Scientifique](#) (FORS, Benin), [Groupe de Recherche Action en Santé](#) (GRAS, Burkina Faso), [Institut de Recherche pour le Développement](#) (IRD, France), [Institut National de la Santé et de la Recherche Médicale](#) (Inserm, France), [Kintampo Health Research Centre](#) (KHRC, Ghana), [Malawi University of Science and Technology](#) (MUST, Malawi), [Stichting Radboud Universitair Medisch Centrum](#) (Radboudumc, The Netherlands), [University of Copenhagen](#) (UCPH, Denmark).

Quick facts about ADVANCE-VAC4PM:

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