

New malaria vaccine

Plasmodium falciparum is an intracellular parasite that invades human blood cells causing malaria. Malaria is endemic in more than 100 countries and kills 0.5 million people a year. Although there has been some progress in the control and treatment of malaria, the development of a safe and effective blood stage vaccine remains an urgent medical need.

DESCRIPTION

The present invention relates to the immunogenic, highly conserved polypeptide P27A, a 104 aa long segment derived from the blood stage protein TEX-1.

Epidemiologic studies in endemic areas have previously shown that antibodies recognizing P27A were associated with protection against severe manifestations of malaria.

STAGE OF DEVELOPMENT

Clinical randomized and controlled Phases Ia and Ib granted by a not-for-profit organization have been performed. These studies have assessed safety, reactogenicity and immunogenicity of P27A adjuvanted with Alhydrogel or glucopyranosyl lipid A (GLA-SE).

Results:

- Excellent antibody response with GLA-SE supported by mixed TH1 and TH2 cell mediated immunity;

- Capacity to block in vitro parasite growth

The next step will be a clinical phase IIa with a human malaria challenge.



ADVANTAGES

It has been demonstrated that transfusion of antibodies purified from sera of protected individuals to malaria patients can drastically reduce the number of circulating parasites. Thus blood stage-based vaccines could be used alone or in combinations with other erythrocytic and pre-erythrocytic - based vaccines (combined vaccine).

INTELLECTUAL PROPERTY

- Priority date: May 7, 2008.
- Patent application WO2009136373, filed in the name of the University of Lausanne and Institut Pasteur naming as inventors G. Corradin, P. Druilhe, A. Jafarshad and C. Roussillon.
- Patent granted in EP and in US

COLLABORATION OFFER

PACTT offers to grant license to industrial partners able to develop and commercialize the technology. PACTT is also seeking a partner to finance a Clinical Phase II.

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