

## 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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