

## US firm developing malaria vaccine for pregnant women

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**Singapore:** US based CMC Biologics, focused on process development and cGMP manufacture of protein therapeutics, has entered into an agreement with the University of Copenhagen for process development and cGMP clinical production of VAR2CSA for a placental malaria vaccine.

The project is focused on developing a novel prophylactic vaccine designed to protect women against malaria during pregnancy. In 2003 Professor Ali Salanti and others at University of Copenhagen discovered the antigen VAR2CSA, which enable parasite accumulation in the placenta. The VAR2CSA molecule, developed by the University of Copenhagen, has the potential to significantly reduce the effects of the parasite. The vaccine attempts not to eliminate the infection, but to eliminate the disease. There are now collaborations with many groups around the world that enabled the preclinical development of the vaccine, and now clinical development.

The vaccine antigen will be produced using ExpreS2ion Biotechnologies' proprietary insect cell-based recombinant protein expression platform, ExpreS2. The ExpreS2 platform is well suited for novel and flexible production modalities, allowing for more cost-effective processes. ExpreS2ion Biotechnologies is a partner of the University of Copenhagen in placental malaria vaccine development.

"Through collaborations like this, we have the opportunity to make a real difference in a disease with major global health implications by helping to take the program into human clinical trials," said Mr. Gustavo Mahler, Global Chief Operations Officer of CMC Biologics. "We are supportive of the committed research conducted by the University of Copenhagen and its collaborators, and pleased to be selected for this next phase of clinical development."

CMC Biologics will employ its technical expertise and experience in Process Development and cGMP manufacturing of Biopharmaceuticals in developing the vaccine and will provide cGMP grade clinical material for the upcoming clinical trials.

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"This is the first clinical trial using parasite antigens that causes severe disease syndromes and we believe CMC Biologics' experience and technical leadership will help us to reach our clinical milestones," said Professor Mr. Thor G. Theander from the Centre for Medical Parasitology at the University of Copenhagen. "We are pleased to be entering into clinical studies to

determine potential safety and efficacy of a vaccine which has the potential to help pregnant women and their unborn children."

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