

**A vaccine against placental malaria made with ExpreS<sup>2</sup>ion Biotechnologies' protein expression technology, ExpreS<sup>2</sup>, is ready to start human tests in Germany and Benin**

Hørsholm, Denmark, 20<sup>th</sup> March 2015 – Biotech Company, ExpreS<sup>2</sup>ion Biotechnologies, today announced the release by its partners at University of Copenhagen, of a vaccine candidate against the form of malaria that strikes pregnant women, for testing in humans. The vaccine candidate contains a malaria antigen made with ExpreS<sup>2</sup>ion's proprietary protein expression technology, ExpreS<sup>2</sup>.

This vaccine candidate results from many years of research done by Professor Ali Salanti and his team at the Department of Immunology and Microbiology at the University of Copenhagen. This work is an example of how ExpreS<sup>2</sup>ion collaborates with its partners to enable advancement of promising vaccines.

Dr. Charlotte Dyring, CEO of ExpreS<sup>2</sup>ion Biotechnologies, said: "This is a very important milestone for our company. The ExpreS<sup>2</sup> system solved the protein expression challenge for this antigen that had failed to be expressed in alternative systems. More than 30 variants of the complex malaria antigen that forms part of this vaccine were produced by ExpreS<sup>2</sup>ion to enable Professor Salanti's team to perform the needed tests to select the most promising vaccine candidate. A very robust production process for the antigen was developed by ExpreS<sup>2</sup>ion and transferred to a manufacturer for production of a batch performed under conditions necessary for human testing. We consider the collaboration with the University of Copenhagen an important success for ExpreS<sup>2</sup>ion: we have delivered on the needs of the project, and demonstrated again the power of our protein expression system ExpreS<sup>2</sup> to deliver results seamlessly through development, from research to manufacturing under the stringent regulatory needs of Good Manufacturing Practice (GMP)".

"It is the first time that a university in Denmark has conceived and produced a vaccine, and this has only been achieved because of the very close cooperation within the consortium that includes ExpreS<sup>2</sup>ion and the University," commented Professor Salanti. The work leading to the release of the testing lot of this vaccine has been funded by the Danish Advanced Technology Foundation (HTF, now Innovation Fund) the European Vaccine Initiative (EVI) and the Framework 7 European Union program.

**About Placental Malaria**

Placental malaria affects pregnant women causing the death of 200,000 infants and 10,000 pregnant women each year. Placental malaria is associated with a significant decrease in infant birth weight, especially in the first pregnancy. Infants may be at an increased risk of anaemia, increased malaria prevalence rates and mortality during their first year of life. Women with malaria infection of the placenta also have a higher risk of passing HIV infection to their new-borns.

Placental malaria has no effective cure. An effective vaccine would have many benefits in communities affected by malaria. (Source – WHO)

### **ExpreS<sup>2</sup>ion Biotechnologies**

ExpreS<sup>2</sup>ion Biotechnologies has developed a complete, proprietary protein expression platform, ExpreS<sup>2</sup>, based on engineered *Drosophila* Schneider-2 (S2) cells to serve recombinant protein production needs in the biopharmaceutical industry as well as in academia. ExpreS<sup>2</sup> allows quick access to proteins, including complex and multi-chain proteins and VLPs, excellent protein expression capability, scalability, applicability to high cell density production processes and regulatory friendliness. ExpreS<sup>2</sup>ion Biotechnologies is collaborating with teams developing manufacturing processes for subunit vaccines. Expression of notoriously challenging malaria proteins in the ExpreS<sup>2</sup> platform has enabled progress in addressing a huge medical need.

ExpreS<sup>2</sup>ion Biotechnologies offers protein expression, cell line development and process development services as well as technology platform licensing opportunities for use in R&D and commercial protein manufacturing. For more information visit [www.expres2ionbio.com](http://www.expres2ionbio.com)

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#### Contact at ExpreS<sup>2</sup>ion Biotechnologies:

Dr. Sancha Salgueiro

Tel: +45 4166 6121

Email: [sas@expres2ionbio.com](mailto:sas@expres2ionbio.com)