
ExpreS²ion's patent and research partner publishes malaria vaccine breakthrough in *Nature*

ExpreS²ion Biotech Holding AB ("ExpreS²ion") announces the publication of the first visual image of the molecular 'key' the deadliest malaria parasite uses to enter human blood cells in *Nature*. The publication was authored by an international team, including scientists from ExpreS²ion, led by the Walter and Eliza Hall Institute of Medical Research ("WEHI"). This breakthrough will contribute to the development of vaccines based on a patent co-owned equally by WEHI and ExpreS²ion.

By creating a visualisation of this molecular 'key' for the very first time, scientists now have access to the previously missing information required to design a malaria vaccine that combats the prevalent *Plasmodium falciparum* parasite by 'locking it down' so that it is unable to spread and infect blood cells throughout the body.

ExpreS²ion previously announced (PR 2017-04-06) the filing of a joint-patent for an improved blood-stage malaria vaccine together with WEHI. The [Nature paper](#) released today documents the scientific high quality of this collaboration and strengthens the parties' joint effort to produce vaccines that targets the eradication of malaria.

"This is very exciting as the published 'key' structure constitutes a milestone in the search and design of new, efficient blood stage malaria vaccines. As this target a \$400 million market and we have 50% ownership of vaccines developed under the patent collaboration, this also represent a substantial potential value and opportunity for us. We are proud that our ExpreS² platform has contributed to this work and look forward to continue our fruitful research and patent collaboration with the acknowledged experts at WEHI." says ExpreS²ion's CEO Dr. Steen Klysner.

The study, involving Nobel Prize-winning technology, was led by Professor Alan Cowman and Dr. Wilson Wong at WEHI in a collaboration with the Howard Hughes Medical Institute's Janelia Campus (US) and ExpreS²ion.

The malaria 'key' is a complex of three parasite proteins called Rh5, CyRPA and Ripr. The Ripr protein was produced and purified by ExpreS²ion using its ExpreS² platform. The three proteins work together to unlock and enter the cell and the complex thereby constitutes a new and promising target for vaccine development.

Malaria

In WHO's World Malaria Report newly issued in November 2018 it is estimated that there were 219 million cases of malaria in 2017. Malaria continues to claim the lives of more than 435,000 people each year, largely in Africa. Children under the age of 5 are especially vulnerable; and WHO estimates that every two minutes a child dies from this preventable disease. In 2017, an estimated US\$ 3.1 billion was invested globally in malaria control and elimination efforts by governments of malaria endemic countries and international partners. The blood stage malaria market is estimated to translate into an amount of approximately 400 mio \$ annually (Boston Consulting Group 2014).

Certified Adviser

Sedermøra Fondkommission is appointed as Certified Adviser for ExpreS²ion.

For further information about ExpreS²ion Biotech Holding AB, please contact:

Dr. Steen Klysner, CEO

Telephone: +45 2062 9908

E-mail: sk@expres2ionbio.com

This press release contains information that ExpreS²ion is obligated to make public pursuant to the EU Market Abuse Regulation. The information was submitted for publication through the agency of the contact person set out above on December 12, 2018.

About ExpreS²ion

ExpreS²ion Biotechnologies ApS is a fully owned Danish subsidiary of ExpreS²ion Biotech Holding AB with company register number 559033-3729. The subsidiary has developed a unique proprietary platform technology, ExpreS², that can be used for fast and efficient preclinical and clinical development as well as robust production of complex proteins for new vaccines and diagnostics. Since the Company was founded in 2010, it has produced more than 250 proteins and 35 virus-like particles (VLPs) in collaboration with leading research institutions and companies, demonstrating superior efficiency and success rates. In addition, ExpreS²ion develops novel VLP based vaccines through the joint venture AdaptVac ApS which was founded in 2017.