

Vaccine candidate against Chikungunya fever proves successful

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A prophylactic vaccine candidate against Chikungunya fever, developed by the Austrian biotech company Themis Bioscience GmbH induces a significant neutralizing immune response and was also confirmed as safe. These are the major interim results of a phase 1 clinical study of the company's Chikungunya vaccine candidate that uses a standard anti-measles vaccine as a vector. The Chikungunya epidemic, currently raging through the Caribbean, illustrates the urgent necessity to develop an effective vaccine against the rapid spread of the disease in tropical regions, now also threatening the North American continent.

The Vienna-based biotech company Themis Bioscience GmbH today received the interim results of a phase 1 clinical study of its Chikungunya fever prophylactic vaccine. The study was carried out on 42 subjects in the Department of Clinical Pharmacology at the Vienna General Hospital, and confirms the expectations pinned on the vaccine: it not only proved to be well tolerated and safe, but also exhibited the required immune response in the form of neutralizing antibodies. Even the lowest doses used showed to be effective, and increasing doses led to respective stronger immune responses in the study subjects.

Commenting on the positive results, Themis founder and CEO, Dr. Erich Tauber, stated: "The confirmed tolerance, safety and [immune response](#) show the suitability of our Themaxyn platform. This uses a standard anti-measles vaccine as a vector and constitutes the basis of our pipeline, comprising a Dengue fever [vaccine candidate](#) and vaccine constructs for other rapidly spreading infectious diseases. The anti-

measles vaccine has already proven itself a million times over, and hence the Themaxyn platform offers an excellent safety profile and clear advantages in terms of a validated, low-cost production process."

The Chikungunya epidemic, currently rampant in the Caribbean, shows that such a platform could soon be needed on a larger geographic scale. Having started in the Dominican Republic, it has already reached Haiti and fears are now growing that the disease could spread further to the USA, where isolated cases of Chikungunya have been observed in recent years. To date, no effective [vaccine](#) for this serious disease has been available and the US Centers for Disease Control and Prevention (CDC) are said to have warned hospitals throughout the country. Accordingly, representatives of the CDC are quoted in The Wall Street Journal as saying: "We are preparing for the potential introduction into the United States".

In light of such developments, the advantages of Themis' patent-protected Themaxyn platform are several fold, including a proven production process ensuring at a later stage the rapid supply on a large scale. Themis sees itself as a boutique biotech firm enabling such end objective, as Dr. Tauber explains: "Our expertise is in R&D. Therefore, we adapt the vector of the Themaxyn platform to new indications. In this context, we have already secured the rights for Dengue fever and we are contemplating a range of further indications. We aim to provide third parties with the rights to license, manufacture and market our development programs once the clinical proof of concept has been established, to then reinvest the proceeds in our research programs." Dr. Gerd Zettlmeissl, member of the supervisory board of Themis, adds: "The fully-patented Themaxyn platform and the focus on its R&D strengths make Themis one of the most effective biotech companies world-wide that develops vaccines against advancing tropical and other infectious diseases."

Provided by Themis Bioscience GmbH

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