Optimized vector vaccine against corona
shows good efficacy in preliminary tests.

Study with optimized vector vaccine MVA-SARS-2-S resumed

Dessau, July 19, 2021

IDT Biologika and the German Center for Infection Research (DZIF) are to continue the clinical review of the MVA-SARS-2-S vector vaccine against COVID-19 with a new version. The DZIF-scientists had temporarily suspended the study program after evaluating the Phase I data because the immune responses remained below expectations, although the vaccine showed a very good tolerability. The spike protein of the vector vaccine has now been modified to make it more available for detection by the immune system. The new vaccine candidate shows good results in preclinical mouse models and is able to induce an improved neutralizing immune response against SARS-CoV-2. Now 30 subjects are being sought to check the dosage of the vaccine, its tolerability and the immune response.

The team led by Prof. Dr. Gerd Sutter from the Ludwig Maximilian University of Munich (LMU) has made optimizations to the so-called spike protein of SARS-CoV-2 to achieve stronger immunization. "We are very confident that we are now testing an improved vaccine that will also result in satisfactory immune responses," explains Prof. Sutter, adding: "Last year, due to the pandemic and lockdown, it was not possible to test a larger number of different formulations and variants of our vaccine in the first clinical phase. The administration of the complete spike protein as a vaccine will definitely continue."

As a vector for the vaccine the DZIF scientists use a harmless smallpox vaccine virus with a long and proven record, the Modified Vaccinia Ankara virus (MVA for short).

This serves as a transport vehicle for the genetic information of the SARS-CoV-2 spike protein. The vector vaccine delivers these instructions into the human body and causes the cells to recreate the coronavirus spike protein. This should then trigger a corresponding immune response with the formation of antibodies and T cells in the vaccinee's body.

The new vaccine has been tested in animal models at the LMU and Philipps-Universität Marburg. "With the optimized vaccine we can see a significantly improved antibody response, which makes us optimistic for the Phase Ib study that is now following," explains Prof. Dr. Stephan Becker, Head of the Institute of Virology at Philipps-University Marburg.

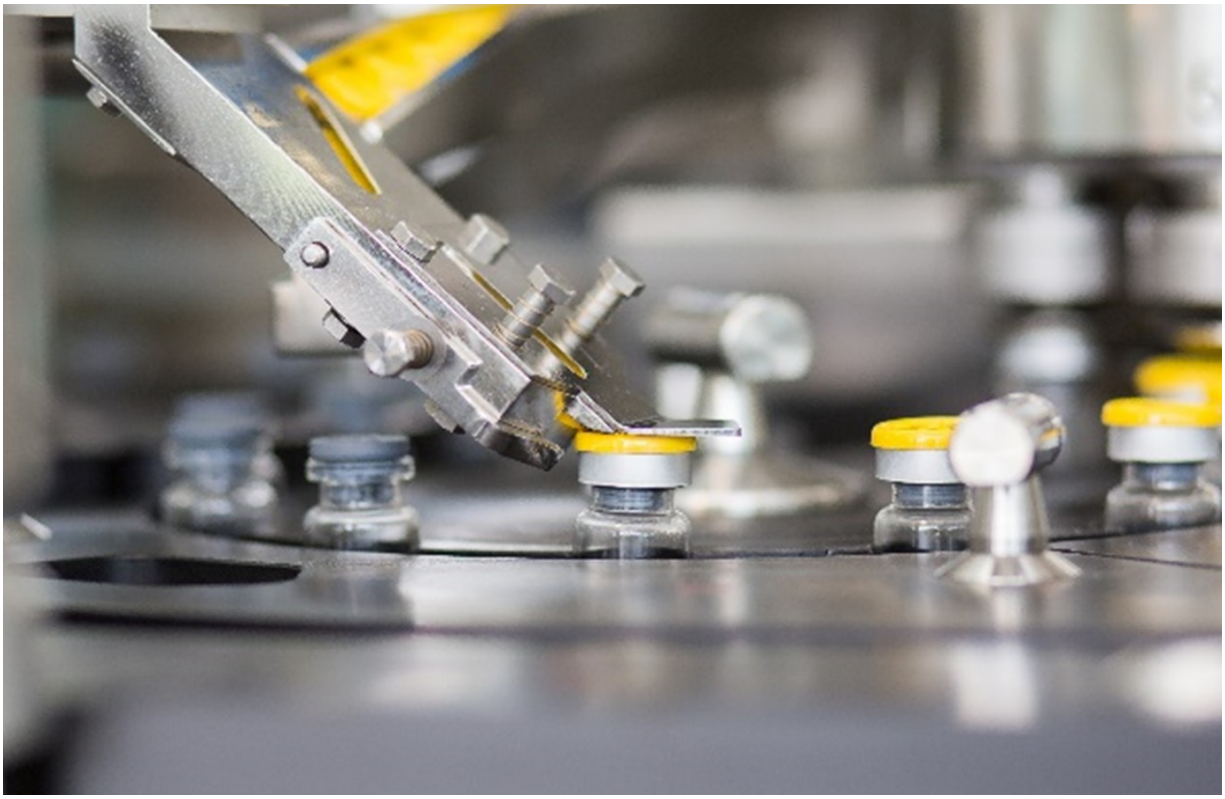
This study phase sees the UKE continue its cooperation with the CTC North clinical research organization. "We are pleased that we can now continue the study and will soon start administering the first vaccinations to the test subjects with the optimized vaccine in three different dosages," says Prof. Dr. Marylyn Addo, Head of Infectiology at UKE, who is leading the clinical study as principal investigator.

Dr. Jürgen Betzing, CEO of IDT Biologika, explains: "The data from the preliminary tests give us confidence that the new vector vaccine offers not only very good tolerability but also a high level of protection for the vaccinated person. Also, on this basis we can quickly initiate the next steps of the project. Since the pandemic is still with us, the project is an important milestone in order to be able to provide suitable vaccination to as many people as possible and to make a contribution in the fight against the coronavirus."

IDT Biologika of Dessau has taken on the technological development of the analytics as well as the production of the vaccine and is also coordinating the preclinical and clinical activities for later approval. In the further course of the study, the study centers of the LMU University Hospital with Prof. Dr. Michael Hölscher and the University Hospital Tübingen with Prof. Dr. Peter Kremsner are to be included in the clinical review. The vaccine is one of three German projects that are supported financially by the Federal Ministry of Education and Research (BMBF) with a special program.

Information about participation in the study

Subjects between the ages of 18 and 65 may participate in the study. The study includes a health screening, two vaccination appointments and 14 control appointments within a period of seven months. The volunteers receive an expense allowance for their participation. Those interested in participating in the study can contact the medical contracting institute CTC North: E-mail: studienteilnahme@ctc-north.com; Phone: +49 40 524719 111; www.ctc-north.com



The joint venture development of a vector vaccine against the coronavirus by scientists from DZIF and IDT Biologika is entering clinical trials again. © Hartmut Bösener/IDT Biologika

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About IDT Biologika

IDT Biologika – an innovative biotech company with a successful history dating back 100 years. On the basis of modern technologies and high levels of expertise we support customers in the development and manufacture of innovative virus vaccines, gene and immune therapy products as well as biologics employed worldwide as protection against diseases. German sites are the BioPharmaPark in Dessau-Roßlau and Magdeburg. In the US the IDT Corporation has a manufacturing site for clinical test samples in Rockville, Maryland.

IDT Biologika is a company of the Klocke Group. This specializes in the contract manufacture and packaging of pharmaceuticals, vaccines and cosmetic products. As a traditional, family-run company, the Klocke Group employs over 2,000 people at six production sites worldwide. Further information can be found on the website of IDT Biologika at www.idt-biologika.com.

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