

Fraunhofer Institute for Toxicology and Experimental Medicine, ITEM

PRESS RELEASE

Fraunhofer ITEM and Corat Therapeutics GmbH start accelerated production of a passive vaccine against COVID-19

Antibodies open a treatment option for patients who are already infected with SARS-CoV-2. The Braunschweig-based Division of Pharmaceutical Biotechnology of the Fraunhofer Institute for Toxicology and Experimental Medicine ITEM, in collaboration with Corat Therapeutics GmbH, will begin production of a specific SARS-CoV-2 antibody that is expected to enter clinical trials as early as the beginning of 2021. This biotechnologically produced drug is a passive vaccine in the form of a complete human antibody that binds to the spike protein on the viral envelope of SARS-CoV-2. This should prevent the virus from spreading the infection in the body. In contrast to a broad range of active vaccines that are currently being developed to protect healthy individuals from contracting the disease, the new antibody can help patients who already have COVID-19.

The Fraunhofer researchers in Braunschweig have designed a completely new strategy for this purpose, which shortens the process development time for the production of investigational medicinal products for clinical trials down to a few months - in contrast to the usual 1.5 to 2 years. The competent authority has already agreed to this novel, significantly accelerated development strategy. Fraunhofer ITEM was significantly supported in this process by experts from Bayer AG. "The aim of this treatment is to stop the infection early in its tracks, so that the typical severe clinical symptoms of the disease don't get a chance to develop. Preventive administration to health-care workers and high-risk patients as a passive vaccine for immediate protection is also conceivable," says Professor Stefan Dübel, one of the initiators of the project at the Institute of Biotechnology at Technische Universität Braunschweig. "Antibodies are the fastestgrowing class of modern drugs. The project has identified possibilities for alternative production and development strategies that might enable not only the active substance against COVID-19 but also other future biopharmaceutical candidates to enter clinical trials more guickly and hence more cost-effectively," adds Professor Holger Ziehr, head of Pharmaceutical Biotechnology at Fraunhofer ITEM.

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Editor



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Brief portrait of the research and development partners:

Fraunhofer ITEM – Pharmaceutical Biotechnology (in Braunschweig) The Fraunhofer ITEM Division of Pharmaceutical Biotechnology has been developing manufacturing processes for biopharmaceutical substances and producing investigational medicinal products for clinical trials for over 20 years.

For further information please refer here.

Corat Therapeutics GmbH

Corat Therapeutics GmbH in Braunschweig is dedicated to the organization and implementation of the accelerated development program for an antiviral antibody therapy against COVID-19, with the goal of starting clinical trials by the end of the year. Corat Therapeutics GmbH was spun off from YUMAB GmbH, a developer of complete human therapeutic antibodies, in mid-May 2020.

For further information please refer here.

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Research for human health is the central topic at Fraunhofer ITEM – with a focus on the lungs and airways. The emphasis is on protecting health from potentially harmful substances, airborne substances in particular, and also on investigating and developing novel diagnostic and therapeutic approaches in the fields of inflammatory and allergic respiratory conditions, both at the preclinical and clinical levels. Complementing these thematic focuses, Fraunhofer ITEM also engages in other subject areas, such as development and manufacturing of biopharmaceuticals, tumor therapy, and translational biomedical engineering.