PRESS RELEASE

Intensive efforts to fight SARS-Cov-2

Fraunhofer supports economy and society in the fight against the pandemic – and its consequences

SARS-Cov-2 has upended every aspect of public life and is a medical and economical challenge of global scope. The COVID-19 pandemic is taking a toll on day-to-day life, on people’s health, on businesses, on the domestic economy and on global trade. The current situation throughout Germany and across the world is posing major challenges for people. Working at the forefront of the fight against the pandemic, Fraunhofer experts are supporting the efforts of industry and society to cope with the immediate effects and the consequences to come: from acute projects in the life sciences sector to close cooperation with companies to immediate medical and medical-technical support.

“In view of the current situation, society, business and science must act decisively in order to overcome the medical crisis as quickly as possible and optimally prepare our economy for the restart,” explains Fraunhofer President Prof. Reimund Neugebauer. “The Fraunhofer-Gesellschaft is focusing on projects in the medical and health sectors of direct relevance to the coronavirus crisis, including the development of a vaccine, innovative diagnostic techniques, the development of new drugs, putting into place a powerful IT infrastructure, and prioritizing relevant pre-competitive research. In addition, numerous Fraunhofer institutes provide fast and unbureaucratic support in the production of components for personal protective equipment.” Numerous Fraunhofer institutes and research units are currently involved in projects, initiatives and immediate aid measures to deal with the pandemic.

>Fraunhofer IME is providing the key link between biologists and data scientists in the EU funded consortium E4C to counter the coronavirus pandemic.

As part of its emergency funding of research activities against the new coronavirus SARS-CoV-2, the European Commission has announced a grant of 3 million euros to Exscalate4Cov (E4C), a consortium of 18 institutions from seven European countries, in which the Division for Translational Medicine of the Fraunhofer IME plays a key role. E4C strives to identify molecules that could work against the virus by using advanced screening and computing techniques. The public-private consortium is led by the Italian company Dompé farmaceutici S.p.A., whose in silico-platform as part of the Exscalate network allows for an ultra-rapid virtual screening of potential drugs against pathogens.

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Technology for corona tracking app
Pan-European Privacy-Preserving Proximity Tracing (PEPP-PT) makes it possible to interrupt new chains of SARS-CoV-2 transmission rapidly and effectively by informing potentially exposed people.
>https://www.pepp-pt.org/

Production of a new antibody test system for the diagnosis of COVID-19
The Fraunhofer Research Institution for Marine Biotechnology and Cell Technology EMB in Lübeck is supporting EUROIMMUN AG in producing larger quantities of its new serological test systems for the diagnosis of COVID-19. EUROIMMUN is one of the first companies in Europe to offer a test for the determination of antibodies against SARS-CoV-2 in serum samples, which enables the identification of persons who have already had contact with the virus. This is important for finding out who has already been through the infection. In addition, there is evidence that these tests detect those antibodies that are able to neutralize the virus and thus provide immunity to SARS-CoV-2.

“Access checker” remotely measures body temperature in addition to heart and breathing rate
An innovative measurement method is helping to detect people infected with coronavirus from a safe distance. It detects fever, increased pulse rates and fast breathing without endangering the person conducting the testing. The Fraunhofer Institute for Manufacturing Engineering and Automation IPA and the Fraunhofer Institute for Industrial Engineering IAO are currently testing the procedure at the Robert Bosch Hospital in Stuttgart.

Give-A-Breath-Challenge
In the face of the corona crisis Munich Re and Fraunhofer-Gesellschaft are launching a challenge for the purpose of pooling the most capable minds in order to alleviate the consequences for those heavily affected all around the globe.
>https://give-a-breath-challenge.innosabi.com/

A wide range of additional project information, expert interviews and blog series can be found at: https://www.fraunhofer.de/en/research/current-research/fraunhofer-vs-corona.html