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News Release

BioPorto and SDU in collaboration to fast track development of test to detect COVID-19 in less than 10 minutes

BioPorto Diagnostics A/S and the University of Southern Denmark (SDU) develop a COVID-19 test for early detection of infected patients to improve patient outcomes and epidemic control. The inexpensive, reliable and effective point-of-care test is expected to become available in the 2nd half of 2020.

BioPorto Diagnostics A/S (BioPorto) announces today that the company and the University of Southern Denmark (SDU) are developing a COVID-19 test for early and rapid detection of the newly discovered coronavirus (SARS-CoV-2).

Current COVID-19 testing analysis is based on the standard method of screening after sending samples to laboratories for analysis. That process can take up to 6-8 hours before the results are ready and the number of tests is limited due to the scarce capacity of the instruments used for analysis.

Serological COVID-19 tests have recently been introduced to speed up the process, but such tests are unsuitable for early detection and cannot distinguish between infected and recovered patients. Furthermore, serological tests may not identify patients in the early phase of the disease, and therefore still rely on laboratory analysis for confirmation.

Detect virus particles in less than 10 minutes

In this collaboration, Associate Professor Jonas Heilskov Graversen and Associate Professor Yaseelan Palarasah from SDU are leading the development of SARS-CoV-2 antibodies which will be introduced on BioPorto's patented technology, the Generic Rapid Assay Device platform (gRAD), for direct point-of-care detection of SARS-CoV-2 virus particles in less than 10 minutes, based on a simple sample from saliva or a pharyngeal swab**.**

"We are using newly developed methods for viral handling and drawing on the large expertise in generation of monoclonal antibodies generated over many years. With this we will develop antibodies that selectively recognise antigens on the virus surface and that show on BioPorto's gRAD strip," says Jonas Heilskov Graversen, Head of Inflammation in the Department of Molecular Medicine.

This novel approach offers a rapid standalone method for early and reliable diagnosis of COVID-19 patients, which can help medical facilities such as doctors' offices, hospitals, laboratories, and health centres make faster diagnoses, so that appropriate precautions and treatments can immediately be implemented to improve patient outcomes and epidemic control.

A rapid diagnosis means that people can go to work or travel by plane shortly after being tested.

Company and researchers create an important tool

Collaborations with national and international hospitals have already been established for immediate access to human sample testing. An approved version of the test kit is expected to be available in the 2nd half of 2020.

"As the coronavirus spreads in a short period of time, and since a significant number of patients are infected by someone who has the virus but does not yet have symptoms, time is essential in the fight to

beat the coronavirus worldwide. Therefore, the availability of a quick and easy to use coronavirus test will be an important tool in this battle," says Jan Kuhlmann, BioPorto Diagnostics' COO.

BioPorto Diagnostics and the University of Southern Denmark (SDU) have more than 20 years of successful partnership, developing nearly a hundred unique antibodies to be commercially available for global research.

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