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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 University of Southern Denmark (SDU) develops COVID-19 test for early detection of infected patients to improve patient outcome and epidemic control. The inexpensive, reliable and effective Point of Care test is available in 2nd half of 2020

BioPorto Diagnostics A/S (BioPorto) announces today that the company and University of Southern Denmark (SDU) are developing COVID-19 tests 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 to the scarce capacity of 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 risk not identifying patients in the early phase of the disease, and therefore still relies 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 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 draw on the large expertise in generation of monoclonal antibodies generated over many years. With this we develop antibodies that selectively recognises antigens on the virus surface and shows on BioPorto's gRAD strip," says Jonas Heilskov Graversen, Head of Inflammation at 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 fast diagnosis, so that appropriate precautions and treatment can immediately be implemented to improve patient outcome and epidemic control.

The 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 available within the 2nd half of 2020.

"As the Corona Virus spreads in a short period of time and since a significant number of patients are infected by somebody who has the virus but does not yet have symptoms, time is essential in the fight to beat the Corona Virus worldwide. Therefore, the availability of a quick and easy to use Corona Virus test will be an important tool in this battle" says Jan Kuhlmann, BioPorto Diagnostics COO.

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

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