

INNOVATIONS IN COVID-19

Bridging opportunities
at Oswaldo Cruz Institute

ANALYTICAL DIAGNOSIS IN INDIVIDUALS AFFECTED BY COVID-19 (COD. 2020.014)

COORDINATOR

Cristina Henriques

RESEARCH AREA

Diagnostic

DEVELOPMENT STAGE

Level 4 - TRL - Component and/or breadboard validation in laboratory environment. MRL - Capability to produce the technology in a laboratory environment.

PROPOSITION / APPLICATION

The methods of serological diagnostic for Covid-19 currently used do not take into account the different types and the amount of antibodies produced for different regions of SARS-CoV2 proteins, and may generate false positive and negative results. The antibody profile produced by individual, may be related to the level of protection for a certain period of time, and cases of reinfection. Thus, the state of the art urges for a diagnostic solution that can provide qualitative and quantitative assessment, with high reliability, increasing the assertiveness of the diagnosis for Covid-19.

INNOVATION

The present innovation proposes the investigation of a certain protein as an important factor in the production of antibodies. Such antibodies could be used in two different fields: (1) in the Covid-19 analytical diagnosis, to identify types of antibodies; and (2) in the production of a serum, when the investigated protein is inoculated in animals to encourage increased production of antibodies that can be used in the treatment of Covid-19.

OPPORTUNITY

Development of a strategy that could culminate in the construction of a diagnostic kit to carry out individualized analysis of the humoral response, with increased reliability and reduction of false-negative results. In the development of effective treatment, production of serum containing specific antibodies capable of neutralizing the virus in individuals affected by the disease.

CONTACT

nit@ioc.fiocruz.br