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## Researchers of ICN2 to Run a European Project to Develop a Rapid COVID-19 Test Based on Nanobiosensors

2020-03-16

The CONVAT project, led and coordinated by Prof. Laura M. Lechuga, CSIC Research Professor at the Catalan Institute of Nanoscience and Nanotechnology (ICN2), will develop a point-of-care platform for rapid diagnosis and monitoring of coronavirus. The biosensor device will also allow the analysis of different types of coronavirus present in reservoir animals, such as bats, to monitor the evolution of these viruses and prevent future infectious outbreaks in humans.

The European Commission has prompted a quick response to focus research efforts on the diagnosis and treatment of the COVID-19 disease caused by the SARS-CoV-2 coronavirus. Today, 6 March 2020, both the European Commission and the Spanish Ministry of Science and Innovation have announced the awarding of 17 research projects through this special call. The only one led from [Spain](#) is the CONVAT project, headed by Prof. Laura M. Lechuga, Research Professor at CSIC and leader of the [Nanobiosensors and Bioanalytical Applications](#) Group at the Catalan Institute of Nanoscience and Nanotechnology ([ICN2](#)). Eight Spanish research centres have been selected to participate in six of these projects. In total they will receive 2.4 million, half of which will come from the CONVAT project led by the ICN2.

### [Nanotechnology in Battle Against Coronavirus ...](#)

CONVAT is a cooperation project between [Spain](#), [Italy](#) and [France](#). In addition to Prof. Lechuga's group, three other centres will take part in it. First of all, the group of Prof. Jordi Serra Cobo from the University of Barcelona (UB), having extensive experience in the study of coronavirus in animals and its epidemiology. In [France](#), Prof. Remi Charrel's laboratory at the University of Marseille is a leader in virology and molecular biology, pioneering the development and production of biological material for the validation of new diagnostic

systems. Finally, the project also involves the Italian National Institute of Infectious Diseases (INMI), where researchers from Dr Antonino Di Caro's laboratory were among the first to sequence the SARS-CoV-2 coronavirus, and which is the reference institute for the analysis and diagnosis of COVID-19.



The project has a duration of two years, however, since it is based on previous know-how, results are expected to be produced in less than a year. CONVAT will provide a new device based on optical biosensor nanotechnology that will allow the detection of coronavirus in about 30 minutes, directly from the patient's sample and without the need for testing in centralized clinical laboratories. This new technology could also quickly identify whether it is a common coronavirus or flu infection. The project indeed aims to extend beyond the current pandemic and the human diagnosis. The new biosensor device will also be used for the analysis of different types of coronavirus present in reservoir animals, such as bats, in order to observe and monitor possible evolutions of these viruses and prevent future outbreaks in humans.

Read the [original article](#) on ICN2.