Cuban scientists use nanotechnology for combating COVID-19



During the meeting, a nanotechnology-based reagent for PCR test processes was announced. PL Photo

Havana, January 13 (RHC) The president of the Republic, Miguel Díaz-Canel, met at the Revolution Palace with the scientists and experts who for more than ten months have contributed to the confrontation of COVID-19 in Cuba.

In the current complicated epidemiological situation, the support of science is fundamental. This was confirmed in the meeting, where several results were announced.

One of them is a nanotechnology-based reagent for the magnetic extraction of RNA, short for ribonucleic acid, another step of national science to achieve technological sovereignty and to replace the increasingly expensive imports to detect the disease.

Dr. Angelina Díaz García, director of the Center for Advanced Studies, explained that it is the laboratory reagent that allows extracting the genetic material, which is an essential step in PCR test processes.

Diaz Garcia said that this product was validated by the Pedro Kouri Institute of Tropical Medicine, it has a 100% concordance with the imported reagents; it does not need a cold chain. It complies with the Regulatory Authority of Drugs, Equipment, and Medical Devices of the Republic of Cuba, CECMED.

Dr. Diaz-Garcia announced that the commitment is to make kits for some 20 thousand extractions daily for this year. The production involves several institutions, including a self-employed worker.

So far, Cuba has managed to produce the swab for sample taking, the means of transport and transfer for collected samples, and now this reagent.

Doctor Rolando Pérez Rodríguez, BioCubaFarma's Science and Innovation Director, affirmed that the idea is to set up the complete system for the final diagnosis.

"The new capacities would not only be good for COVID-19 but any disease of viral, bacterial origin, the chronic nontransmissible ones, including cancer," explained the researcher.

He added that everything required for the molecular diagnosis would be produced on the island, and he affirmed that by 2022, Cuba would have all that technology.

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