

## India to be self-reliant in RT-PCR and Antibody test kits by the end of next month: Dr. Harsh Vardhan

By ISW Desk

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New Delhi, April 28 (India Science Wire): Union Minister of Science & Technology, Health & Family Welfare and Earth Sciences, Dr Harsh Vardhan, here today reviewed, through video-conferencing, the various initiatives undertaken by the Department of Biotechnology (DBT) and its Autonomous Institutes and its Public Sector Undertakings (PSUs) – BIRAC and BIBCOL, to tackle the current COVID-19 crisis especially with respect to progress made in indigenous development of vaccine, Rapid Test and RT-PCR diagnostic Kits.

Secretary, DBT, Dr. Renu Swarup informed that DBT has evolved a multi-pronged research strategy and action plan for immediate response as well as for long-term preparedness to tackle COVID-19. These multifaceted efforts include research towards development of candidate vaccines, therapeutics, and suitable animal models for COVID-19 as well as development of indigenous diagnostics and genomic studies on the host and pathogen. The DBT and its PSU, Biotechnology Industry Research Assistance Council (BIRAC) has announced a COVID-19 Research Consortium Call to support Diagnostics, Vaccines, Novel Therapeutics, Repurposing of Drugs or any other intervention for control of COVID-19.



During interaction with DBT scientists, Union Minister was informed about various computational methods being developed by DBT labs/Autonomous Institutes to predict potential antiviral drug molecules. In another strategy, surrogates of the virus are being developed representing one or more critical steps in virus lifecycle and inhibitors are being tested. Work is in progress to isolate neutralizing antibodies either from the patients recovered from COVID-19 or from human antibody libraries. Also various Autonomous Institutes of DBT are working on development of candidate vaccines which are at various stages of pre-clinical studies with an overall aim to demonstrate the proof of concept and immunogenicity and safety evaluation prior to clinical testing. At the moment, at least 9 of these studies are in early stages and one delivery and adjuvant system for improving the immunogenicity of candidate vaccine is at the advanced stage of development.



While discussing genetic sequencing, Dr. Harsh Vardhan said, “These genetic sequencing efforts remind me of Polio eradication movement 26 years back. Towards the fag end of the Polio movement, active surveillance of the country was done to find out the cases of acute flaccid paralysis. That time also, genetic sequencing was used to establish the travel history of polio virus which eventually helped in the eradication of polio.”

After the presentation, Dr. Harsh Vardhan appreciated the work being done by scientists and their innovative ways of finding solutions to mitigate COVID-19. “The sincere efforts of DBT scientists will enable the country to be self-reliant in production of RT-PCR and Antibody test kits by the end of next month. This will make it possible to meet the target of conducting one lakh tests per day by the end of next month”, he said. He also exhorted scientists working on developing new vaccines, new drugs and medical equipment, to speed up their work. “Out of at least half a dozen candidates supported for vaccines, four are in an advanced stage and regulatory platform at one place has been constituted for speedy clearances”, he said.

Dr. Harsh Vardhan also appreciated the BIRAC efforts in supporting over 150 startup solutions of which over 20 are ready for deployment. He also released a Hand-Sanitizer developed by another PSU of DBT, Bharat Immunologicals and Biologicals Corporation Ltd. (BIBCOL) which is engaged in manufacturing of various biological, pharmaceutical and food products. It currently is manufacturing formulations of Vitamin C and Zinc tablets to contribute towards the solutions for COVID-19. “A contribution of Rupee One towards commercial sale of each single bottle of this Sanitizer will go to PM Cares Fund”, Dr. Harsh Vardhan said.

Dr. Renu Swarup, Secretary, DBT, senior officials, Directors of DBT- Autonomous Institutes, Senior Scientists and senior officials from BIRAC and BIBCOL participated in the meeting. (India Science Wire)

Keywords : DBT, COVID-19, BIRAC, BIBCOL, RT-PCR, Antibody test kits