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# RCB working on new solutions to beat COVID-19

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**Working on preventive and diagnostic measures**

A team of researchers at Faridabad-based Regional Centre for Biotechnology (RCB) led by Dr. Avinash Bajaj has initiated a study to engineer virucidal coatings to prevent the COVID-19 Transmission.

The study is being conducted in collaboration with Dr. Milan Surjit from Translational Health Science and Technology Institute (THSTI) and Dr. Samrat Mukhopadhay from Department of Textile Technology, Indian Institute of Technology, Delhi. Regional Centre for Biotechnology (RCB), is an 'Institution established by the Department of Biotechnology, Government of India, under the auspices of UNESCO.

Dr. Bajaj's group has expertise in engineering of antimicrobial molecules that can target the membranes of microorganisms selectively. Here, the group will be extending their expertise on developing the molecules that will target the membranes of Covid-19 viral particles selectively. These molecules will then be used for engineering of different surfaces like glass, plastic and textiles including cotton, nylon, and polyester to provide virucidal coating that can potentially inhibit the viral transmission.

In another effort to help fight the pandemic, a research group led by Prof. Deepak T. Nair at the Centre is trying to find out how to inhibit the activity of a protein called nsp12 protein that houses the RNA-dependent RNA polymerase activity responsible for the duplication of the RNA genome of the SARS-CoV-2 virus.

In addition, a group of scientists at the Centre is working to develop a highly sensitive and specific, rapid, point-of-care, low-resource-requiring, colorimetric and cost-effective test for COVID-19 detection with Dr. Priyanka Maurya of S H C Shine Biotech, another on a probe based RT PCR diagnostics kit with Dr. Shailendra Vyas of Bioheaven, a third group on a rapid molecular diagnostic kit with Dr. Sandeep Verma of InnoDx and the fourth on a PCR based in-vitro diagnostic kits with Dr. Suresh Thakur of NGIVD.