

## NCBS preparing solutions to fight COVID-19

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### A rapid compressed sensing technology for COVID-19 pooled testing is being developed



Bengaluru based National Centre for Biological Sciences (NCBS) and Institute for Stem Cell Science and Regenerative Medicine (inStem) have received approval to immediately undertake projects that aim to develop affordable, field-deployable actions in the fight against COVID-19.

Given the acute shortage of reagents for the manufacture and procurement of COVID-19 diagnostic test kits in the country and worldwide, a rapid compressed sensing technology for COVID-19 pooled testing is being developed.

Mathematical models of COVID-19 spread are being developed, including detailed agent-based models and coarse-grained epidemiological models. These will be fit to national-level quantitative data on COVID-19 spread, to provide recommendations on outbreak suppression.

A rapid colour-based assay for point-of-care COVID-19 detection is being developed.

A method to rapidly screen FDA-approved drugs that interfere with key steps of viral entry and processing is being developed.

Cheminformatics approaches will be used to study whether antivirals already in use for other coronaviridae infections could be repurposed for COVID-19.