

# CORONAVIRUS

Relevant for: Developmental Issues | Topic: Health & Sanitation and related issues

CSIR-Centre for Cellular and Molecular Biology (CCMB) finally got the permission of the Indian Council of Medical Research (ICMR) to commercially use the 'game changing technology' of dry swab RNA-extraction free testing method for the COVID-19 virus on Friday. Developed by the in house research team, it will help public health authorities to scale up the testing at a fraction of the current cost of conventional RT-PCR tests and also give results in a double quick time.

The ICMR has issued an advisory permitting "the use of CSIR-CCMB dry swab method, considering its lesser cost and quick turn-around time after evaluating and finding an overall concordance of 96.9%". The CCMB has sought the ICMR nod after finding the trial runs successful here in association with the TS health authorities in July and first reported in these columns.

Coronavirus | [CCMB finds cheaper, more effective RT-PCR method to test COVID-19 samples](#)

In the conventional testing method, nasopharygeal — nose or oropharyngeal — throat swab samples are collected by sample collection centres from the suspected coronavirus patients. These are transported to testing centres, sometimes even hundreds of kilometres away.

The swab samples are generally placed in a liquid called Viral Transport Medium (VTM) and to avoid leakage, the samples are packed heavily that adds on to sample processing times at both the sample collection and testing centres. Yet, there could be leakages from samples, which render those batches untestable and unsafe in handling, explained CCMB Director Rakesh Mishra.

CCMB researchers have found that the 'VTM' can be totally avoided and dry swab technique also does not require RNA extraction process, and can be directly used for RT-PCR testing with sensitivity and specificity similar to the current gold standard. This can be used in settings where automated RNA extraction is not available.

"RNA extraction, even with automation, takes four hours for roughly 500 samples. VTM and RNA extraction both add a significant burden on money and time required for mass testing for coronavirus. We believe the technique's merit holds for all kinds of settings and has the potential of bringing the costs and time of testing by 40-50%. COVID-19 screening can also be enhanced several fold with immediate effect while, at the same time, making the whole process safer," said the Director.

CSIR Director-General Shekhar C. Mande said the dry-swab direct RT-PCR method is easy to implement with no requirement of new kits and existing manpower can perform this with no additional training and hence could make a significant contribution to ramping up the testing capacity in the country quickly.

The dry swab test methodology has also been independently corroborated by multiple premier institutes and hospitals such as Centre for DNA Fingerprinting and Diagnostics (CDFD), IISER-Berhampur, CSIR-NEERI, GMCH-Nagpur, Genepath based in Pune, IGGMSH and MAFSU, Nagpur and also Apollo Hospitals, Hyderabad. It has been published in peer reviewed journal by CSIR-CCMB and by other scientific groups in several prestigious scientific journals across the world, a release stated.

You have reached your limit for free articles this month.

To get full access, please subscribe.

Already have an account ? [Sign in](#)

Start your 14 days free trial. [Sign Up](#)

Dear reader,

We have been keeping you up-to-date with information on the developments in India and the world that have a bearing on our health and wellbeing, our lives and livelihoods, during these difficult times. To enable wide dissemination of news that is in public interest, we have increased the number of articles that can be read free, and extended free trial periods. However, we have a request for those who can afford to subscribe: please do. As we fight disinformation and misinformation, and keep apace with the happenings, we need to commit greater resources to news gathering operations. We promise to deliver quality journalism that stays away from vested interest and political propaganda.

Dear subscriber,

Thank you!

Your support for our journalism is invaluable. It's a support for truth and fairness in journalism. It has helped us keep apace with events and happenings.

The Hindu has always stood for journalism that is in the public interest. At this difficult time, it becomes even more important that we have access to information that has a bearing on our health and well-being, our lives, and livelihoods. As a subscriber, you are not only a beneficiary of our work but also its enabler.

We also reiterate here the promise that our team of reporters, copy editors, fact-checkers, designers, and photographers will deliver quality journalism that stays away from vested interest and political propaganda.

Suresh Nambath

Please enter a valid email address.

The World Health Organisation had advised against its use in the treatment of COVID-19.

Subscribe to The Hindu now and get unlimited access.

Already have an account? [Sign In](#)

Start your 14 days free trial [Sign Up](#)

**END**

Downloaded from [crackIAS.com](#)

© **Zuccess App** by [crackIAS.com](#)