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News Bulletin

01 to 05 April 2020



Little data to predict Indian strain of COVID-19 less virulent: CCMB director (Interview)

CSIR -CCMB

05 April, 2020

Little data to predict Indian strain of COVID-19 less virulent: CCMB director (Interview)

Hyderabad, April 5 (IANS) There is very little data available at this stage to suggest that Indian strand of coronavirus is less virulent compared to the countries suffering large numbers of fatalities, a top Indian scientist said.

"There is very little data available, and at the same time it is difficult to predict that it is less virulent and different from strains prevailing in countries which have serious problems," Rakesh K Mishra, Director at Centre for Cellular and Molecular Biology (CCMB), told IANS in an interview.

The head of the premier research institute believes that making any prediction now will be only imagination as there is no scientific basis for the same.

His reaction was sought on views being expressed by some members of the scientific community that Indian strand of the virus is less virulent compared to China, Europe or the US and hence the country has not seen many fatalities.

He also does not agree, at least at this stage, that India will escape the situation which other countries are going through.

"That is something we should not believe because we are several weeks behind countries which are having a bad time currently. We have to see the trend in the next 4-5 days. At present we are testing a few samples while those countries are doing a large number of tests," he said.

As of April 4, India had over 3,000 cases and 75 deaths. Globally, the virus has killed over 62,000 people and more than a million have been infected.

Will India be able to prevent community transmission?

"We are not sure whether we are going to prevent it. There is a big chance because the number of patients is not increasing so much. The next few days will be important. If a large crowd with symptoms does not come to hospitals, it will be good but we have to wait and see for the next few days. At the moment, I will not conclude that we have managed to stop this. I don't think we could conclude at that," Mishra said.

Mishra is of the view that India needs to effectively implement lockdown and social distancing to make sure that large numbers of people with symptoms do not come to hospitals.

CCMB, one of the leading labs under the Council of Scientific and Industrial Research (CSIR), is engaged in research related to coronavirus by sequencing the genome of the virus from a large number of samples.

The institute, which is already conducting coronavirus tests, hopes to have some data next week with sequencing of at least 20 genomes. However, for a comprehensive picture it needs to do sequencing of 100 or odd genomes.

"Large scale genome sequencing of the virus will tell us source of these infections. We will know which route it is coming, whether lateral mode of infection has started, how fast it is changing and if circulating Indian type is very different which will help in vaccine and drug development efforts.

"After that, once we start getting samples from hospitals with patient details including

information on symptom severity, prognosis, etc., we will be able to connect the viral genome information to its pathological implications. That will be useful in management of this disease," he said.

CCMB is also growing the virus in cell culture in laboratory safety conditions to set up assay system for potential treatment options and also to use the virus for serological testing approach.

"Sequencing of large number of genomes of virus will be the key. If the virus is very very variable that means the vaccine will not work. In such a scenario, we will have to go for a drug," he said.

ACCMB recently started lab testing as it has the capacity to handle such tests. "It is in full swing. We are going to accelerate. Right now we are able to do 150 to 200. Some logistics are required and can go up to several hundreds in the next 2-3 days," Mishra said.

However, the main difficulty faced in the current system of testing is shortage of reagents.

"Alternate sources of reagents used for testing are available with small companies and start ups. They have approached CCMB for validation and we will be validating the same. In a couple of weeks some of these may become ready for production. Regulatory system and approving authorities, currently like ICMR, will have to give them a nod," he said.

"Startups in this area can give us their products. We can check and validate it so that necessary permission can be taken for production for mass level testing which means testing tens of thousands of samples. We are hoping that this technology will have a tangible impact on Covid-19 testing," Mishra said.

Mishra feels that so far India's response to the problem has been good.



"India as a system has done very well by closing down the activities. It is a very good move. We could have done better if we had more labs testing in the beginning. In such times research institutions could have done things differently than closing down. Having said that labs which can this have been allowed to function like CCMB has been allowed," he concluded.

COVID-19 | 17 test positive for coronavirus in four Telangana districts

CSIR -CCMB

05 April, 2020

The district authorities in Telangana were on their toes on Saturday as 17 positive cases of COVID-19 were reported from different districts.

The gravity of COVID spread in Adilabad district became evident on Saturday when as many as 10 Jamaat returnees tested positive for the viral infection taking everyone concerned by surprise. Of the 81 samples of suspects from the different isolation wards, including the 11 of primary contacts of the Hasnapur positive case, sent for test to Centre For Cellular and Microbiology (CCMB), reports of 45 were received of which 35 tested negative, according to Collector A. Sridevasena.

Reports from samples of remaining suspects would be received on Sunday, according to sources. Authorities have begun the follow-up action on identification of primary and secondary contacts of the positive cases, six of whom are from the district headquarters, three from Neredigonda mandal headquarters and one from Hasnapur village in Utnoor mandal.

Two of the positive cases, both from Adilabad town are aged 72 years while two others are in their 20s. The remaining are in the age group of 30 to 50 years.

The first positive case was known on Friday night when the report of a 24-year-old Jamaat returnee from Hasnapur was received by authorities. He is known to have come into contact with hundreds of people after coming back from Delhi on March 19 including attending a wedding at Utnoor attended by an estimated 200 to 500 invitees.

Published in:

[The Hindu](https://www.thehindu.com)

CSIR-CFTRI

05 April, 2020

COVID-19: CSIR, CFTRI to provide coronavirus testing equipment for detection

Mysuru, Apr 5 (UNI) Mysuru based CSIR and Central Food Technological Research Institute are joining hands with the district administration in combating the spread of COVID-19 by making available equipment needed for testing the samples.

In statement issued here on Sunday said COVID-19 infection is at present detected by a very sophisticated and precise technique called Real Time Polymerase Chain Reaction (PCR) method which requires extraction of RNA of virus from samples and amplification of the same using a PCR machine.

CSIR-CFTRI is providing two PCR machines and one RNA extraction unit along with necessary chemicals to the district administration for coping with the large number of samples to be tested in the district. Mysore district has been identified as one of the four hot spot districts with large number of suspect infections. The suspected persons quarantined need to be tested before and after the quarantine period for the presence of virus in their body, whether they show the disease symptoms or not.

Published in:

[Uniindia](http://uniindia.com)

IITR provides hand sanitiser



Sanitiser being handed over to Chief Minister Yogi Adityanath

PNS ■ LUCKNOW

To overcome the shortage of hand sanitiser for essential services and as a part of scientific social responsibility, Indian Institute of Toxicology Research (IITR), in partnership with Round Table India, prepared 600 litres of hand-rub sanitiser and provided it to UP in the presence Chief Minister Yogi Adityanath.

The Chief Minister held

discussions with IITR director Alok Dhawan and his team about the efforts of CSIR institutions at PAN-India level in this critical time and handed over sanitiser produced by the institute as per WHO-recommended hand-rub formulation to the CM office.

The Chief Minister suggested distribution of sanitiser for utilisation of the police department working on the

frontline and municipal workers. Dhawan consigned the hand sanitiser to Commissioner of Police (Lucknow) Sujeet Pandey in the presence of Additional Chief Secretary Awanish Awasthi.

IITR provided hand-rub sanitiser also to the office of State Mission of Clean Ganga (SMCG) in the presence of A Dinesh Kumar, special secretary, SMCG.



Transition to eco-friendly stoves in Kanha Tiger Reserve

The Corbett Foundation, with the kind support of PricewaterCoopers (PwC) India Foundation, has launched its project 'Healthy Forests, Healthy People' in Kanha Tiger Reserve. A total of 900 households from 14 villages would be provided energy-efficient portable cookstoves designed by **NEERI**. These cookstoves reduce the usage of firewood by around 40-50%. This project will ensure reduction in the collection of firewood from forest and ensuring better health of women due to reduced smoke. In addition, habitat restoration work also forms an integral part of this project that TCF will work closely with Kanha Tiger Reserve.

TCF thanks PwC India Foundation for their support towards this project. Special thanks to the wonderful team of Kanha Tiger Reserve for the support and partnership.

Published in:

The Times of India

Neeri develops indoor air purifier, hands it over to Mayo hospital

Manka Behl@timesgroup.com

Nagpur: Taking note of the safety of medical persons working in government hospitals while treating coronavirus patients, CSIR-National Environmental Engineering Research Institute (Neeri) has developed a first-of-its-kind bench scale air purification scrubber (BAPS) that will purify indoor air.

On Friday, the scientists handed over the scrubber to Mayo Hospital where nine corona positive patients are currently undergoing treatment. The original design of BAPS developed by the institute was used for treating outdoor air pollution.

Wet scrubbers are effective air pollution control devices for removing particles or gases from indoor or outdoor exhaust streams. It operates by introducing the dirty gas stream with a scrubbing liquid.

According to scientists, the same invention has been modified to decontaminate indoor air. "The scrubber works on the principle of absorbing dust particles from the air. In the pilot experiment at Mayo, we have replaced the regular liquid with



► Neeri develops first-of-its-kind bench scale air purification scrubber (BAPS) to purify indoor air of the hospitals

► Scrubber handed over to Mayo Hospital

► Regular liquid inside scrubber replaced by soap water and disinfectants



If proven effective, the air purifiers can be used on a large scale at airports, malls and cinema halls

► Soap dissolves the fat membrane and the bio aerosols falls apart and becomes inactive

► Bio aerosols including virus can remain active outside the body in ambient air for hours

soap water and disinfectants. There are higher chances of presence of virus inside the hospital air. The scrubber will clean the air from particles and bound bio aerosols, and release treated air out," said PS Rao, senior principal scientist at Neeri.

Rao added that the vacuum pump takes in the "impure air, dirt and pollution from the atmosphere and delivers it to the lower chamber of the system through a pipe". "A mixture of disinfectant and soap water is present in the lower chamber. The impure

air from the atmosphere reacts with the disinfectant soap water mixture takes up the particles including bio aerosols and it gets purified," she said.

The dirt in the air settles down at the bottom the chamber as the dirt particles are heavier. "Soap dissolves the fat membrane and the bio aerosols falls apart and dies, or rather it becomes inactive. It is reported that the bio aerosols including virus can remain active in ambient air and many surfaces for hours," said Rao.

If proven effective, BAPs can be used on a large scale at airports, malls, cinema halls and other places which have huge footfalls.

"Environmental contaminants are widely distributed in our environment. Therefore, they have a vast effect on the tropic food chain. While commercial air purifiers focus on eliminating dust, pollen, smoke particles and volatile organic compounds from the air, wet scrubbers with various scrubbing agents can be made capable of capturing a greater number of bio aerosols bound particulates," said Rao.

उम्मीद

मॉडर्न मेडिसिन के साथ सीडीआरआई का फोकस आयुर्वेद की तरफ भी

कालमेघ बनेगा कोरोना वायरस का काल !

रूमा सिन्हा • लखनऊ

तमाम चिकित्सा पद्धतियों के बीच आयुर्वेद का रुतबा क्यों बरकरार है, यह किसी को बताने की जरूरत नहीं। दुनिया के तमाम देश जहां कोरोना से त्राहि-त्राहि कर रहे हैं, वहीं भारतीय वैज्ञानिक कोरोना का काल तलाशने में जोर-शोर से जुटे हैं। उम्मीद की किरण जगी है कि औषधीय पौधा कालमेघ कोरोना का काल बनेगा।

सीडीआरआई के निदेशक डॉ.तापस के. कुंडू बताते हैं कि मॉडर्न मेडिसिन के साथ हमारा फोकस आयुर्वेद की तरफ भी है। कालमेघ औषधीय पौधे का प्रयोग फीवर व वायरल संक्रमण में किया जाता है। जिसमें वायरल रोगों के नियंत्रण की अपारशक्ति है। कालमेघ में एंडो ग्राफीलाइट पैनीकुलेटम पाया जाता है। यह एक टेट्रासाइक्लिक कंपाउंड है जो वायरस की प्रोटीन

जागरण विशेष



कालमेघ का पौधा

यह हैं गुण

- बुखार और वायरल संक्रमण में किया जाता है कालमेघ पौधे का प्रयोग। इसमें वायरल रोगों के नियंत्रण के गुण पाए जाते हैं
- कालमेघ में एंडो ग्राफीलाइट पैनीकुलेटम होता है। यह एक टेट्रासाइक्लिक कंपाउंड है जो वायरस की प्रोटीन के साथ जुड़ता है और उसे खत्म कर देता है

डायग्नोस्टिक किट तैयार करने में जुटा सीडीआरआई

वैज्ञानिक एवं औद्योगिक अनुसंधान परिषद (सीएसआइआर) का केंद्रीय औषधि अनुसंधान संस्थान (सीडीआरआई) डायग्नोस्टिक किट तैयार करने में भी जुटा है। वैज्ञानिकों का प्रयास है कि वायरस के मुकाबले के लिए देश को हर फ्रंट पर तैयार किया जा सके।

के साथ जुड़ता है और उसे खत्म कर देता है। सीडीआरआई इसके प्रभावों की पड़ताल कर रहा है। इसके लिए हर्बल टीम तैयार की गई है। उम्मीद है कि जल्द कोविड-19

के हर्बल उपचार में सफलता मिलेगी। संस्थान मॉडर्न मेडिसिन के तहत ऐसे मॉलिक्यूल की परख में जुटा है, जो इलाज में कारगर होते दिखाई दे रहे हैं।

तीन फ्रंट पर चल रहा काम

सीडीआरआई के निदेशक डॉ.तापस के. कुंडू ने बताया कि कोरोना से जंग में संस्थान तीन फ्रंट पर काम कर रहा है। जल्द से जल्द कुछ अलग तरह का ब्रॉड स्पेक्ट्रम डायग्नोस्टिक किट तैयार करने की कोशिश है जो मौजूदा किट से अलग होगा। दूसरा, देश में जहां भी औषधि अनुसंधान किया जा रहा है। हम कोविड-19



प्रो. तपस कुमार कुंडू

वायरस का प्रोटीन लेकर विकसित दवा को परखकर यह बता सकते हैं कि वह उपचार में कारगर होगी या नहीं। संस्थान ने ऐसे मॉलिक्यूल की पहचान की है जिन्हें कोविड-19 के इलाज के लिए संभावित मॉलिक्यूल के रूप में देखा जा रहा है।

Chandigarh's CSIR-IMTECH to start testing Covid-19 samples

CSIR-IMTECH

04 April, 2020



CSIR-Institute of Microbial Technology (IMTECH), Sector 39, is set to start testing coronavirus (COVID-19) samples.

This makes it the third institute in Chandigarh to conduct tests for coronavirus, the other two being Post Graduate Institute of Medical Education and Research (PGIMER) in Sector 12, and Government Medical College and Hospital (GMCH) in Sector 32.

On Thursday, the Indian Council of Medical Research (ICMR) had allowed all national research laboratories, including those under the Council of Scientific and Industrial

Research (CSIR) to conduct testing for coronavirus. CSIR is India's premier national research and development organisation, which operates a network of over 38 laboratories across the country.

Institute's director Dr Sanjeev Khosla said the institute was equipped to test around 100 samples a day, and the capacity can be increased when required. He said CSIR-IMTECH had the requisite BSL (biosafety level) 2 and BSL3 laboratories, along with manpower expertise, to carry out testing for Covid-19. "All mandatory approvals for testing clinical samples have been obtained to operationalise testing at the earliest," he added.

UT health secretary Arun Kumar Gupta said the protocol for testing at IMTECH will be formulated after they officially receive intimation of the testing facility from the institute.

As part of the existing protocol at PGIMER

and GMCH, foreign travellers are tested if they have symptoms. All symptomatic people, who came in contact with a positive patient, or have severe acute respiratory infection (SARI) are also tested. Any other persons suspecting infection first need to contact the health department to allow it to establish if testing is required.

Apart from testing clinical samples, IMTECH is also supporting healthcare professionals by providing Personal Protection Equipment (PPE) to safeguard them against infection while serving patients.

Published in:

[Hindustantimes](http://www.hindustantimes.com)

CSIR-IITR

03 April, 2020

CSIR-IITR prepare 600 litre of sanitizer

Lucknow, Apr 3 (UNI) To overcome the shortage of hand sanitizers for essential services, and as part of scientific social responsibility, CSIR-Indian Institute of Toxicology Research (CSIR-IITR) in partnership with Round Table India prepared 600L of hand-rub sanitizer and provided it to the Uttar Pradesh government in the presence of Chief minister Yogi Adityanath here on Friday. Chief Minister discussed with Professor Alok Dhawan, Director, CSIR-IITR and his team comprised of Dr Parthasarathi Ramakrishnan, Principal Scientist, CSIR-IITR; Mr Suyash Kapur, Round Table India, Lucknow based entrepreneur; Mr. & Mrs. Bhandari, SS Maser Technology Pvt Ltd, on various aspects of initiatives by the state and how R&D institutions can contribute to handle the crisis.

Professor Alok Dhawan briefed Chief Minister about the efforts of CSIR institutions at the PAN India level in this critical time and handed over sanitizers produced by the institute as per WHO-recommended hand rub formulation to CM office.

The Chief Minister suggested distributing the sanitizer for the utilization of the police department working on the frontline and municipal workers.

Professor Alok Dhawan promptly consigned the hand sanitizers to Mr Sujeet Pandey, Commissioner of Police, Lucknow, UP in the presence of Mr Avanish K. Awasthi, Additional Chief Secretary, Home Department.

CSIR-IITR provided hand-rub sanitizer also to the office of State Mission of Clean Ganga (SMCG), Uttar Pradesh in the presence of Mr A Dineshkumar, IAS, Special Secretary, SMCG, UP.

Published in:
[Uniindia](http://uniindia.org)

UNI MB JTS 2205

CSIR-IMTECH

03 April, 2020

चंडीगढ़: इमटेक में भी हो सकेगी कोरोना वायरस की जांच, रोजाना 50 से 100 सैंपल का होगा परीक्षण



कोरोना वायरस की जांच के लिए इमटेक तैयार। - फोटो : अमर उजाला

चंडीगढ़ के सेक्टर- 39 स्थित सीएसआईआर-सूक्ष्म जीव प्रौद्योगिकी संस्थान (इमटेक) कोरोना के टेस्ट करने के लिए तैयार हो गया है। संस्थान की ओर से बताया गया है कि उसने इस बारे में यूटी प्रशासन व पीजीआई को सूचना दे दी है। इमटेक एक दिन में 50 से 100 सैंपलों की जांच कर सकता है। इमटेक प्रवक्ता की ओर से बताया गया है कि संस्थान के पास कोरोना टेस्ट करने के लिए सभी जरूरी संसाधन व एडवांस उपकरण मौजूद हैं। साथ ही सभी तरह की अनुमति भी उनके पास है। बताया जा रहा है कि भारत में कोरोना के टेस्ट कम हो रहे थे। 10 लाख की आबादी के परीक्षण के हिसाब से भारत अन्य देशों के मुकाबले काफी नीचे था। इसी को ध्यान में रखकर आईसीएमआर ने सभी सरकारी मान्यता प्राप्त प्रयोगशालाओं को टेस्ट करने का निर्देश दिया था। उसके बाद चंडीगढ़ के इमटेक ने भी जरूरी कदम उठाए और कोरोना टेस्ट को लेकर तैयार है। प्रवक्ता ने बताया कि आने वाले दिनों में टेस्ट की क्षमता बढ़ाई जा सकती है। चंडीगढ़ में कोरोना का टेस्ट पीजीआई व सेक्टर- 32 मेडिकल कॉलेज में हो रहे हैं।

Published in:
Amarujala

C-CAMP shortlists 5 innovations to fight virus

CSIR -CCMB

02 April, 2020

Bengaluru-based Centre for Cellular and Molecular Platforms' (C-CAMP) Covid-19 Innovations Deployment Accelerator or C-CIDA has shortlisted five innovations that have solutions with high potential to combat the virus.

The five companies are CoSara Diagnostics Pvt Ltd and Ampligene Diagnostics Pvt Ltd for rapid diagnostics; Coeo Labs and Aryantra for assisted respiratory devices; and Anabio Technologies Pvt Ltd for preventatives.

“In the first week of evaluation, five innovations with more soon to come, from a pool of over 460 ideas received over the last one week. C-CIDA will now connect these five start-up companies with industry partners as well as government agencies for scaling and deployment ,” said Taslimarif Saiyed, C-CAMP CEO and Director.

“Depending on the specific needs of each individual company, in play are pilot testing, fast-track regulatory clearance, CSR funding support, investments and industry scale-up geared towards quick deployment,” he added.

C-CIDA, a Covid-19 focused accelerator launched by C-CAMP on March 26, has partners like United Nations Health Innovation Exchange (UNHIE), Social Alpha, India2022 Xynteo, MedTechConnect, India Health Fund, AIC-CCMB and CCMB.

Key areas

The five companies are addressing key areas in checking the Covid-19 pandemic

including — Enhanced testing capabilities through low-cost, easy-to-use, rapid and accurate diagnostics technologies with minimised chances for false positives. This is of paramount importance for ramping up mass-testing as underlined by Covid-19 trajectory in South Korea.

Preventative technologies that are a step above current sanitising techniques and with higher staying power. Protective gear like N95 masks, sanitised hospital linen, PPE grade outerwear are in low-supply the world over. This is an affordable technology that can quickly turn a mask and also any normal cotton cloth into an effective virus-blocker, could be a positive gamechanger.

Increased options for assisted ventilation through both invasive and non-invasive respirators for critically ill Covid-19 patients. Intubated support, reports suggest, may not be necessary in all cases with respiratory distress. CPAP or Continuous Positive Airway Pressure machines have the capacity and have been approved by USFDA, to be used in case of non-availability of ventilators. This strategy could be significant in current times.

If and when community transmission sets in in India, reports say that in a worst case scenario we may have 2.2 million cases with an estimated 5-10 per cent of total patients requiring ICU and critical care in form of ventilator support. Having a maximum of about 57,000 ventilators at our disposal, Indian healthcare system will need an urgent supply of ventilators and even more importantly proper triaging to identify patients who need the support most.

With low-cost CPAP machines at hand, clinicians will be better equipped to allot resources optimally saving more lives.

Published in:

[The Hindu Businessline](https://www.thehindubusinessline.com)

Get Corona tests done at below Rs 500, soon Get Corona tests done at below Rs 500,

CSIR –IGIB

02 April, 2020

New Delhi: In a major achievement, the CSIR has developed a low-cost Corona testing kit that would help in fast-tracking testing at the mass level. As per CSIR scientists, the testing kit, which can give results in about one hour, is in the approval stage and it would cost below Rs 500 for a test.

The testing kit has been developed by CSIR-Institute of Genomics and Integrative Biology (IGIB) in a record time of just two months. While talking to Millennium Post, Dr Debojyoti Chakraborty said, "The CSIR's institute was working on this technology for the last 1.5 years and the Corona testing was adopted in just two months as the project was started in January-end after positive cases of Covid-19 started getting reported."

"It's a paper-based testing kit as similar to pregnancy kit and it can be used by any pathologist. There is no need to have a specialised technician for conducting the tests through CSIR-developed kits," Chakraborty said, adding that a team of seven scientists were involved in this project which was also coordinated by Dr Souvik Maiti.

"The sample is converted into DNA and then it will go on the strip, which would give a distinct line on the strip if Coronavirus present in it," Chakraborty said, adding the kit is not yet ready for home-testing. However, it can be conducted at any university lab, etc as it doesn't require any special equipment.

"It can be conducted at any routine pathology lab, mohalla clinics, etc. The whole process takes about 1 hour right from RNA to the detection. The cost of the kit would be fixed at below Rs 500," he said.

Chakraborty further said that technology is not only valid for Covid-19 rather a wide variety of viruses can be detected through it, including dengue, chikungunya, etc. "We are currently running this test on Covid-19 patient samples to understand the accuracy and the results are promising. All the Covid-19 samples are being tested at IGIB only," he said.

Meanwhile, Defence Research and Development Organisation (DRDO) has also developed a number of PPE products such as CBRN permeable suit Mk V, which has been developed by DRDE, Gwalior and 53,000 such suits have been supplied to Army and NDRF

Published in:

[Millenniumpost](#)

India's first paper-strip test for Covid-19, CSIR lab makes a breakthrough

CSIR-IGIB

02 April, 2020



“We have been working on this tool for around two years. But, in late January, when the outbreak hit its peak in China, we began testing it to see if it can work for Covid-19. It took us around two months to come up with these results,” said Dr Debjyoti Chakraborty, from the Institute of Genomic and Integrative Biology (IGIB), CSIR’s premier laboratory in New Delhi.

The test uses the cutting-edge gene-editing tool- Crispr-Cas9 to target and identify the genomic sequences of the novel coronavirus in the samples of suspected individuals

The kit is similar to a portable paper-strip test used to confirm pregnancy and does not require any different specialized skill to perform and is relatively less-sophisticated.

In a major breakthrough, a team of Indian scientists have successfully developed a low-cost, paper-strip test which can detect the new coronavirus within an hour and address India’s urgent need for rapid-testing.

“Unlike most rapid tests require dedicated machinery, this can be performed using standard equipments available in every pathological laboratory or even Mohalla Clinics in Delhi. This is important, because if number of infections shoot up drastically, we would need tests which can be done in local facilities. We will have to bring the tests closer to the patients to reduce transmission and this is what it does,” said Dr Anurag Aggarwal,

The test uses the cutting-edge gene-editing tool- Crispr-Cas9 to target and identify the genomic sequences of the novel coronavirus in the samples of suspected individuals.

Director, CSIR-IGIB.

The team led by Dr Souvik Maiti and Dr Debjyoti Chakraborty is currently testing the kit in a patient cohort for its accuracy and sensitivity and hope to seek validation from a regulatory body of the Indian Council of Medical Research (ICMR) within a week.

Unlike the real time PCR test currently being used for diagnosis of Covid-19 in India, costing about ₹4500, the paper-strip test costs less than ₹500. It also does not depend on expensive real-time PCR machines for RNA isolation, DNA conversion and amplification, which are already in limited supply.

While scientists in other countries including Stanford University and Massachusetts Institute of Technology (MIT) have been testing this approach, it is the first such indigenous testing kit based on CRISPR technology to be developed in India.

As India heads for the exponential rise in the number of infections, rapid-testing would be the key strategy to ensure timely isolation of the positive cases to contain the virus from spreading fast. As on Thursday, the total number of positive cases has crossed 1,965 across the country. At least 12 more people have succumbed to the disease taking the total death toll to 50.

Published in:

[Livemint](https://www.livemint.com)

CCMB growing coronavirus in labs to study genome structure

CSIR –CCMB

01 April, 2020

Anticipating a rise in the number of cases, Mishra also said it would be at least one year before any nation comes out with vaccine or drug for the killer virus. So as of now maintaining social distance and hygiene is the only way to keep it away.

"We have started research activity on Covid-19. We started growing this virus in our labs in larger quantities so that we can use it for serological testing, to study its growth in the cells and for new interventions.

"To make potential drugs, we are also carrying out the whole genome sequencing of the virus so that we will understand how virus is changing, what the link of the virus is and what route it is taking," Mishra told "PTI".

CCMB, the countrys premier research organisation in frontier areas of modern biology, began testing coronavirus samples from Tuesday. It has the capacity testing several hundred in day, the official said.

Asserting that in the absence of clear-cut study on the impact of rising temperatures on the virus, he said maintaining social distance and sanitisation is the only way to escape from the clutches of Covid-19.

"There is no question of decrease in number of cases. All indicators are that cases are going to rise...There is certainly going to be a rise in the number of cases. How far it would go depends on how effective is our lockdown. This (rise in temperature may decrease number of cases) is more of a speculation. There is no big evidence for that," Mishra said.

He said the present coronavirus spread needs to be treated largely with "crisis management" skills and some of the countries that are coming out of the upheaval are due to their management skills, not through medicines or vaccines.

"China has come out because of controlling of movement of people. No country will have vaccine at least before one year," he added.

The official opined that India needs to increase its testing capacities so the more number of samples can be analysed to get a clear picture of the endemic. PTI GDK PTI PTI



नीरी ने मेयो को दिए पीपीई किट

भास्कर संवाददाता | नागपुर. नीरी की ओर से मेयो को पीपीई किट उपलब्ध कराए गए हैं। किट में दस्ताने, सैनिटाइजर, मास्क समेत अन्य जरूरी वस्तुएं मेयो के डिप्टी मेडिकल सुपरिंटेंडेंट डॉ. सागर पांडे को दिया गया। इसके साथ ही नीरी के एयर पाल्यूशन कंट्रोल विभाग की ओर से तैयार किए गए एंटी माइक्रोबिलय क्षमता वाले एयर प्यूरीफायर भी मेयो को दिए गए। डॉ. खैरनार ने बताया कि पीपीई किट की कमी के कारण स्वास्थ्य कर्मियों के लिए जोखिम काफी बढ़ गया है। कालाबाजारी और जमाखोरी के कारण पीपीई किट बाजार से गायब हो चुके हैं। इस कारण फंड उपलब्ध होने के बावजूद ये जरूरी चीजें स्वास्थ्य कर्मियों को उपलब्ध नहीं हो रही हैं। ऐसे में नीरी ने अपने लैब में उपलब्ध किट स्वास्थ्यकर्मियों को देने का फैसला किया है। उन्होंने बताया कि नीरी की ओर से भविष्य में और पीपीई किट जमा कर मेयो को दिए जाएंगे। नीरी के इस कदम की मेयो प्रशासन से प्रशंसा की है। इस दौरान नीरी के सीनियर साइंटिस्ट और एनवॉयरेंटन वायरोलॉजी विभाग के प्रमुख डॉ. कृष्णा खैरनार और रिसर्च स्कॉलर उपस्थित थे। मेयो की ओर से डॉ. सागर पांडे उपस्थित थे।

NEERI provides essential PPE to IGGMCH

CSIR-NEERI

01 April, 2020



Considering the need of Personal Protection Equipment (PPE), National Environmental and Engineering Research Institute (NEERI) has given a bunch of PPE to Indira Gandhi Government Medical College and Hospital (IGGMCH). The PPE includes gloves, hand sanitisers, masks was given to IGGMCH COVID-19 team Dr Sagar Pande and colleagues.

More PPE items will be given to IGGMCH after more collections are received. Also an air purifier with antimicrobial ability designed by Air pollution control division will be provided to IGGMCH. IGGMCH has conveyed their sincere thanks to CSIR-NEERI for the helpful gesture. The activity was taken up by Dr Krishna Khairnar (Senior Scientist and Head, Environmental Virology Cell, CSIR-NEERI) and motivated research scholars from his laboratory.

Published in:

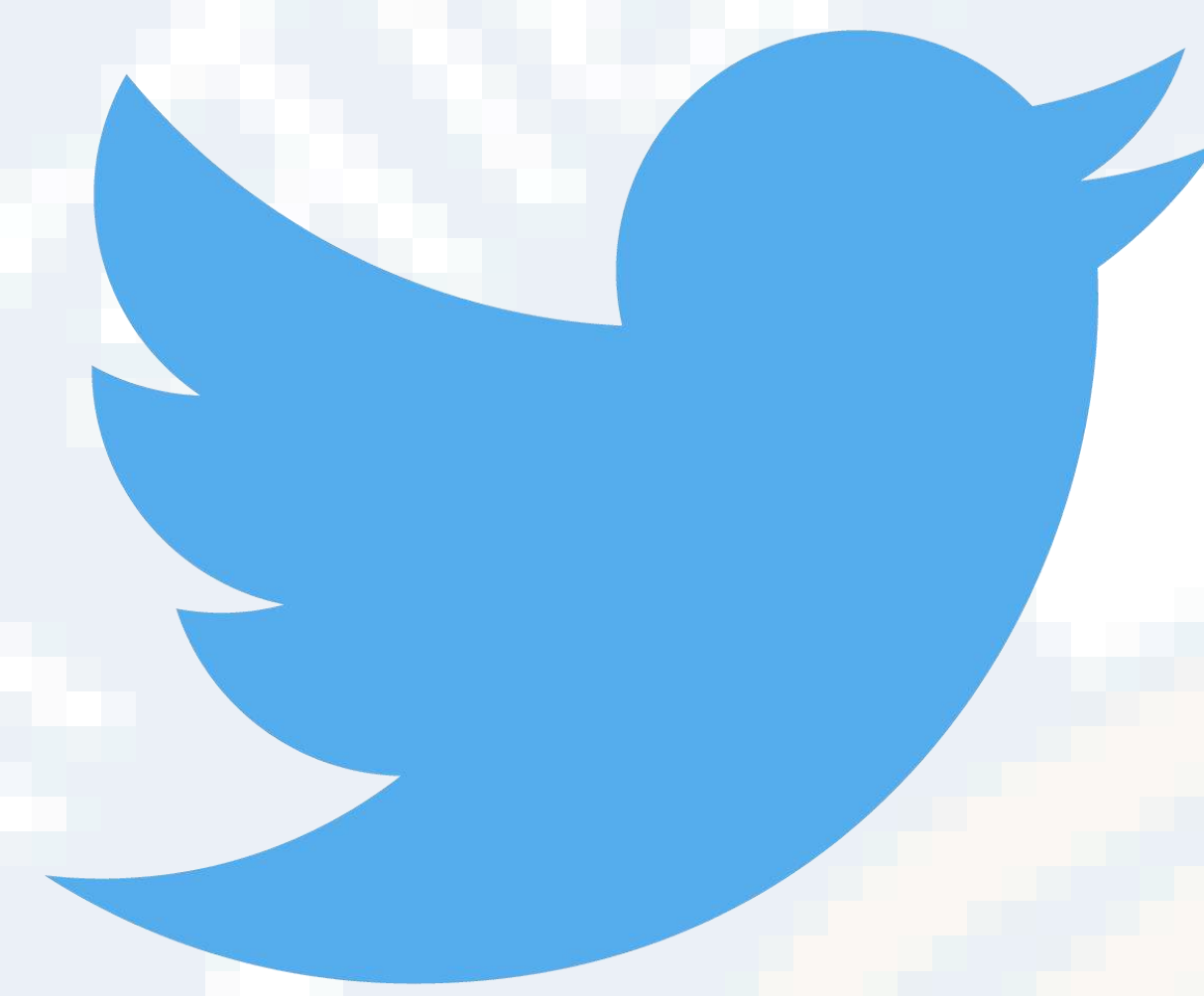
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