

CSIR IN MEDIA



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Blacktopping of Mowb-II road using plastic waste starts

CSIR –CRRI

30 May, 2020



The department of Science & Technology in collaboration with state PWD on Friday started the process of blacktopping a stretch of road here in Mowb-II using plastic waste products. This is a pilot project and is being monitored by Central Road Research Institute (CRRI), New Delhi.

The Science & Technology department Director C.D Munghyak informed that this innovative project was initiated by Chief Minister Pema Khandu and the Arunachal Pradesh State Council for Science & Technology (APSCS&T) was given the task for the initiative.

“We cannot stop people from using plastic materials but we can reduce the plastic waste by using them for developmental works. The budget for the same was provided by the state government in 2019-20. We are doing this work jointly with PWD under the technical guidance of Central Road Research Institute (CRRI) New Delhi,” he said.

“The officials of CRRI will visit after pandemic is over to review the status of the project,” he added.

The assistant engineer PWD Capital Division-A, Neelam Mama informed that the project from Mowb-II to Niti Vihar is around 1.2 KM and it has been laid complying with the guidelines of IRC SP.

OSD Department of Science & Technology Nyelam Tath, chief engineer, SID&P Dr. Atop Lego, Executive Engineer, PWD CDA Tana Nikam, and JE Kristanna Techhi are part of the project.

Published in: Arunachaltimes

Assam: Covid -19 testing facility launched at NEIST in Jorhat

CSIR –NEIST

30 May, 2020



Assam health minister Himanta Biswa Sarma on Saturday inaugurated the eighth Covid -19 testing facility at North East Institute of Science and Technology (NEIST) in Jorhat.

Addressing media persons, Sarma said this was the first facility outside of the six medical colleges in the state and the laboratory of Indian Council of Medical Research at Lahowal on outskirts of Dibrugarh town which would aid in testing of the novel coronavirus.

Sarma said this would further aid in the state's fight against the killer virus.

“We have till date tested 85,000 people and within two or three days hope to achieve the target of 1 lakh. This laboratory at NEIST will further the testing capacity,” the minister said.

He said the state was indebted to the director and dedicated scientists of NEIST for coming forward at this hour of crisis with such a facility.

Sarma further informed that by June 15 the state hoped to have at least 12 testing facilities

These would be the Indian Institute of Advance Science at Guwahati, Diphu Medical College, DRDO, Tezpur and another one at Gauhati Medical College and Hospital.

The minister said Assam had been so far successful in staving off an epidemic due to testing and strict enforcement of quarantine facilities.

“Those returning from outside the state and testing positive are mostly young workers who

are recovering but if they are not quarantined and would be allowed to go and mix with the elders in their villages then the situation would have gone out of hand,” he said.

The director of NEIST G Narahari Sastry had earlier said that as the research laboratory had expertise in micro biology and molecular biology with required laboratory facilities and government laboratories operational under CSIR were authorized to take up testing of Covid 19, an initiative to set up the laboratory was undertaken.

Dr Sastry said the laboratory would be able to carry out tests on nearly 100 samples within 3 to 4 hours under the RT-PCR (reverse transcription polymerase chain reaction) method.

Sarma later went to Jorhat Medical College and Hospital, where four patients who had earlier tested positive for Covid 19, were released

Jorhat deputy commissioner Roshni AKorati said with five new cases testing positive on Saturday, the total cases in the district reached 67 in JMCH.

Halting hydroxychloroquine trials based on faulty Lancet study is 'knee jerk reaction', say CSIR, IGIB, CMI

CSIR –IGIB

30 May, 2020

By Suchitra Mukherjee, New Delhi, May 30: Council of Scientific and Industrial Research (CSIR) Director-General Shekhar Mande, Institute of Genomics and Integrative Biology (IGIB) Delhi Director Anurag Agarwal and Chennai Mathematical Institute (CMI) Chennai Director Rajeev Karandikar have written to the World Health Organisation (WHO) and asked the global health body to resume trial of hydroxychloroquine (HCQ) for the treatment of COVID-19 patients as early as possible, asserting that the Lancet's study is not correct.

In an email to Lancet paper editor Richard Charles Horton as well as WHO, Mande stated the study published in Lancet on HCQ and chloroquine and its effect on COVID-19 is an observational study with static parameters and analysis, which is not sufficiently good.

It also stated that the decision of WHO to temporarily suspend quality HCQ trials based on findings of the Lancet study appears to be a "knee-jerk reaction".

Mande said that the study design and statistical interference are not right and therefore, it does not deserve any attention of the readers.

"In our considered opinion, the decision of WHO is questionable and the statistical analysis is not correct. Lancet paper is not sufficiently rigorous, rather it is faulty and therefore, the decision of the WHO to temporarily halt the study is not correct. We have written an email to the WHO that the decision is not right and the HCQ clinical trial must resume as early as possible," Mande said.

The email refers to the article in Lancet "Hydroxychloroquine or chloroquine with or without a macrolide for treatment of COVID-19 a multinational registry analysis", which present an analysis of the hospital registry data on the effect of HCQ on COVID-19 patients.

According to the letter, the article published in Lancet appears to give a sense of legitimacy to the findings and consequently has led to the suspension of HCQ trial by the WHO.

"However, the study has several limitations as the authors have themselves acknowledged in the article. Thus, using this study to halt the use of HCQ or chloroquine in the ongoing controlled trial seems questionable," it said.

"The article represents an observational study. Unlike randomised blinded trials where subjects are chosen randomly to receive treatment, to minimise differences between treatment groups in this study, there has been no such prior design. The methodology of the paper mentions that all patients who were hospitalised between December 20, 2019, and April 14, 2020, with PCR confirmed COVID-19 infection were analysed," read the letter.

The research bodies said that first reported symptoms of the diseases was a cluster of pneumonia cases which were recorded on December 31, 2019, in China's Wuhan and the WHO published the first disease outbreak news on the new virus only on January 5, 2020.

"Moreover, it was only on January 20, 2020, that the first case was recorded in the US. Thus, scanning the records of hospitalisation from December 20, 2019, appears to be unjustified. While it is not expected to make any difference since PCR confirmation would not be there for non-COVID cases, it is worth noting that the number of patients and the number of deaths in this study are inconsistent with public health records of the same, often exceeding them despite surveying only a subset of healthcare organisations," read the letter.

They said that this raises concern for errors in data extraction from electronic records.

"Even if the data were correctly extracted, severe flaws remain. The main problematic area here, as in all observational studies, is the baseline differences between groups and application of statistical methods to adjust for them," the letter stated.

"Clearly, in this Electronic Health Record (EHR) data-driven study, without any inputs of local treatment protocols, we do not know whether the patients, who were administered chloroquine/hydroxychloroquine were chosen based on – the severity of symptoms, the number of symptoms reported/observed or location-specific some hospitals gave it to all (or most) and some gave to few. If so, then the conclusions have no value, because the confounding factors that this choice introduces cannot be statistically corrected using available data," it said.

The research bodies said that on various parameters, the patients who were given chloroquine/hydroxychloroquine seem to be doing far worse.

"Table 2 shows that the control group has the lowest baseline severity markers, BMI, proportion of males, coronary artery disease, congestive heart failure, diabetes and hypertension amongst all groups. These represent all the major known risks and while individual differences are small and may lack statistical significance, it appears likely that physicians were selecting for sicker patients while assigning treatment with HCQ/CQ," the letter said.

"This is not unexpected here and highlights the well-known problem of statistical comparisons of unbalanced unrandomised groups in observational studies. Conventional statistics test the null hypothesis, which is automatically rejected if the groups are likely to be dissimilar. Little value is then added by confidence intervals and p-values in determining whether differences are causally related to the intervention label of the group," it said.

"Overall, this suggests that receiving the treatment was based on the severity of symptoms. While this does support the lack of high effectiveness of HCQ/CQ therapy, the decision of WHO to temporarily suspend quality HCQ trials based on findings of this study appears to be a knee jerk reaction," it further said.

Coronavirus vaccine: Serum Institute, CCMB, ICMR researches, other updates from India

CSIR –CCMB

30 May, 2020

India, along with other countries, has also made significant strides in the search for a coronavirus vaccine. According to the government around 30 groups are working in the country to come up with a vaccine candidate. The national science laboratories have also rounded up six corona vaccine candidates that are making quite some progress. In fact, India is optimistic that a COVID-19 vaccine would be concocted in a year, instead of 10-15 years that is usually taken to find a vaccine.

Here is the latest update on India's coronavirus vaccine research:

Centre for Cellular and Molecular Biology research: CCMB has successfully isolated the virus from several isolates. What this would enable the researchers at the CCMB to do is culture the virus and work towards vaccine development. The cultures would then be used in drug screening and can be tested against potential drugs in test tubes.

Serum Institute of India research: Pune-based SII is one of the leading contenders in the search for a corona vaccine. The largest vaccine producer is working with University of Oxford to find a safe and affordable COVID vaccine. Oxford is conducting clinical trials and SII is speeding up work to ensure that doses of the same are available as early as October.

Meanwhile, leading pharma company Novavax is buying SII's manufacturing plant and planning to produce a billion doses of its coronavirus vaccine by next year. The company would buy Czech Republic-based Praha Vaccines, a unit of India's Cyrus Poonawalla Group that owns Serum Institute for \$167 million in cash.

ICMR research: ICMR and Bharat Biotech are working with Thomas Jefferson University of Philadelphia for a COVID-19 vaccine. "The virus strain isolated at the National Institute of

Virology (NIV) laboratory in Pune will be used to develop the vaccine, and this strain has been successfully transferred to the Bharat Biotech International Ltd (BBIL). It is expected that the human trials of the vaccine will begin in at least six months," said Dr Rajni Kant, Director Regional Medical Research Centre and Head at ICMR.

Zybus Cadila research: The Council of Scientific & Industrial Research (CSIR) is currently testing a "repurposed" vaccine, Sepsivac by Zybus Cadila, which is in Phase 2 of the trial. It is looking to seek approval from the drug controller for wider use.

CORONAVIRUS DRUG

Patanjali Ayurveda that is known for its ayurvedic remedies has said that it has launched clinical trials for a cure for coronavirus cure after it received regulatory approvals. A political storm brew over the approval. Congress leader and former MP chief minister Digvijaya Singh has said he's surprised the trust has been given approval without a nod from the country's drug controller. "We are not talking about an immunity booster. We are talking about a cure," said MD Acharya Balkrishna.

Glenmark Pharmaceuticals said that it will begin a new clinical trial in India to test a combination of two antiviral drugs, favipiravir and umifenovir, as a potential COVID-19 treatment. The study will look to enroll 158 hospitalised patients suffering from moderate COVID-19 infections in India, the company said.

Sun Pharmaceutical has also received approval from DCGI to initiate clinical trials on Nafamostat Mesilate on COVID patients. Nafamostat is used to treat acute symptoms of pancreatitis and disseminated intravascular coagulation (DIC).

'एनसीएल'ने रोखली अॅसिडची बाधा

टँकरमधून अॅसिडची गळती : चांदणी चौकात अॅसेटिक अॅसिड टँकर उलटला, एनसीएलच्या टीमची धाव

लोकमत न्यूज नेटवर्क

पुणे : चांदणी चौकात अॅसेटिक अॅसिडच्या टँकरला अपघात झाल्याने बुधवारी (दि.२७) रात्री परिसरात घबराट पसरली होती. टँकरमधून अॅसिडची गळती सुरु झाल्याने श्वास घ्यायला तसेच डोळ्यांना त्रास होत असल्याच्या तक्रारी होत्या. त्यानंतर पोलिसांच्या समन्वयातून राष्ट्रीय रासायनिक प्रयोगशाळेतील (एनसीएल) शास्त्रज्ञांची टीम तिथे पोहोचली. इतरांच्या मदतीने त्यांनी दक्षता घेत अॅसिडवर अमोनियम बायकार्बोनेट टाकण्यास सुरुवात केली. त्यामुळे अॅसिडची तीव्रता कमी झाली. अन्यथा परिसरातील अनेक लोकांना गंभीर स्वरूपाचा त्रास होण्याची शक्यता निर्माण झाली होती.

बुधवारी रात्री साडेदहाच्या सुमारास ३० मेट्रिक टन अॅसेटिक अॅसिड असलेल्या टँकरचा चांदणी चौकात अपघात झाला होता. या अपघातानंतर त्यातून अॅसिडची गळती सुरु झाली. सुरुवातीला इतर वाहनचालक तसेच परिसरातील



चांदणी चौकात अपघातग्रस्त अॅसेटिक अॅसिडचा टँकर.

नागरिकांना या अपघाताचे गांभीर्य समजले नाही. पण काही वेळाने जवळच्या लोकांना डोळ्याला तसेच श्वास घेण्यास त्रास होत असल्याचे जाणवले. याबाबत नियंत्रण कक्षात तक्रारी येण्यास सुरुवात झाली. त्यानंतर 'एनसीएल'च्या अधिकाऱ्यांना माहिती मिळाली.

अॅसेटिक अॅसिडमधून निघणारी

वाफ ज्वलनशील आणि घातक असल्याने एनसीएलचे संचालक प्रो. अश्विनी कुमार नांगियांच्या नेतृत्वाखाली १२ शास्त्रज्ञ व इतर कर्मचाऱ्यांची टीम ११.३०च्या सुमारास घटनास्थळी पोहोचली. वाफ रोखण्यासाठी अमोनियम बायकार्बोनेट पावडरने भरलेला ट्रक त्यांनी नेला होता. घटनास्थळी पोहोचताच त्यांनी

टँकरमधून बाहेर आलेल्या अॅसिडवर पावडर टाकण्यास सुरुवात केली. तसेच टँकरच्या सर्व बाजूने ही पावडर टाकली. पुढील पाच तास दर १५ ते २० मिनिटांनी हे काम सुरु होते. टँकरमधून बाहेर पडणाऱ्या अॅसिडची तीव्रता कमी करणे, हे प्रमुख आव्हान त्यांच्यासमोर होते. पहाटे दोन वाजण्याच्या सुमारास संबंधित कंपनीची दुसऱ्या टँकरसह

गणपतीसाठी ठेवलेले बायकार्बोनेट आले कामाला.

- ◆ एनसीएलमध्ये मागील वर्षीपासून काही टन अमोनियम बायकार्बोनेट उपलब्ध आहे. इकोफ्रेंडली पीओपीच्या गणेशमूर्तीच्या विसर्जनासाठी त्याचा उपयोग केला जातो.
- ◆ सुदैवाने बायकार्बोनेट उपलब्ध असल्याने त्याचा तातडीने वापर करता आला. अॅसेटिक अॅसिडची वाफ सातत्याने बाहेर पडत राहिली असती तर परिसरातील लोकांना मोठ्या प्रमाणावर बाधा झाली असती, असे प्रो. नांगिया यांनी सांगितले.

तिथे दाखल झाली. त्यांनी अपघातग्रस्त टँकरमधील अॅसिड दुसऱ्या टँकरमध्ये भरण्यास सुरुवात केली. यावेळी पोलीस आणि अग्निशमन दत्ताचे कर्मचारीही सहकार्य करत होते. अपघातग्रस्त टँकरमधील अॅसिड संपेपर्यंत सर्वजण अथकपणे प्रयत्न करत होते, असे प्रो. नांगिया यांनी सांगितले.

CSIR

NCL saves residents from inhaling hazardous vapour

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Pune: Potential harm due to acetic acid leak from a 30-metric tonne tanker near Chandni Chowk on Wednesday night was neutralized thanks to prompt action by scientists from the CSIR-National Chemical Laboratory with the help of the police and fire brigade.

The leakage had created panic among local residents and people working nearby as it caused breathing issues and eye irritation.

"A team of about twelve scientists and technical staff, led by CSIR-NCL director Ashwini Kumar Nangia, reached the site at around 11.30pm with a truck loaded with Ammonium Bicarbonate (ABC). The team scattered ABC powder on the leaking chemical and the tanker surface every 15-20 minutes for 5 hours to control the leaking vapour. The challenge was to make sure that the leaking acid from the tan-

Acid leak from tanker sparks panic at night



ker was periodically neutralized by adding base ABC," an NCL release stated.

"Had the spreading of acetic acid vapours continued till morning without neutralization, the situation could have been very serious and hazardous for people in the neighbourhood," said Nangia.

Interestingly, NCL had several tonnes of ABC chemicals available at hand since last year when it was used for eco-friendly immersion of Plaster of Paris Ganapati idols.

Prabhakar Ingle, head of

publication and science communication at NCL, said, "The police had informed the team that acetic acid was leaking due to which we could go prepared with ABC. Even for them, the smell was unbearable but they were wearing masks as it is the norm nowadays. At around 2am, a team of company and transport official came to transfer the acetic acid to another tanker with the help of the police and the fire brigade. The team visited the site again the next morning to provide guidance in the cleaning up process."

Hyderabad-based CCMB masters culturing Covid-19 virus

CSIR –CCMB

29 May, 2020

Hyderabad: The novel strain of coronavirus (SARS-CoV-2), which causes Covid-19, has kept the entire country on tenterhooks. The virus has created so much fear among the general population that individuals are willing to go to any extreme to avoid getting it. And yet, researchers at the Hyderabad-based Centre for Cellular and Molecular Biology (CCMB) have mastered the art of culturing the virus in a laboratory.

The geneticists from CCMB are literally burning the midnight oil with the highly contagious SARS-CoV-2 virus, trying to understand it better and hopefully detect a few chinks in its armour. “If you are uninformed, then definitely you will have fear. When you can understand the applications of fire, instead of worrying about it, you can apply fire to cook food. Similarly, we have been trying to understand many parasites, viruses and bacteria. We have cultured encephalitis, dengue and plasmodium also in our laboratories. Understanding the coronavirus is very important to find a solution for it,” says CCMB Director Dr RK Mishra.

Over the last month and a half, the researchers have established stable cultures of SARS-CoV-2 from samples of patients from a host of regions in India. A team of researchers led by CCMB virologist Dr Krishnan H Harshan have isolated infectious viruses from several isolates.

The ability to culture the virus in the lab enables CCMB to work towards vaccine development and testing of potential drugs to fight Covid-19. It also makes them a potential donor of the culture to other authorised centres that can continue growing the virus for their own use.

According to Dr Krishnan, there are many applications of cultured SARS-CoV-2 virus, including in vaccine development, understanding of antibodies and testing them, and testing of disinfectants’ efficacy. There is a huge demand for both domestic and industrial activities to eliminate SARS-CoV-2 from various sources including Ultraviolet (UV) rays. Such UV instruments need to be tested for their efficacy and here again the SARS-CoV-2 cultures form key components in such tests.

Published in: [Telanganatoday](https://www.telanganatoday.com)

NCL team helps control leaked gas from tanker

CSIR -NCL

29 May, 2020



Scientists at the CSIR-National Chemical Laboratory (NCL) helped control the aggravation of effects of acetic acid, which leaked from a container truck after an accident on May 28 at Chandani Chowk along the Mumbai-Bengaluru highway.

Following the leak, local residents complaints about irritation in eyes and problems in breathing. A twelve-member team of NCL, which is 10 km from the accident site, reached the spot and assessed the situation.

The leaked gas was identified as acetic acid, which has a boiling point at 118 degrees Celsius, is highly corrosive and can be toxic when inhaled.

For the next five hours, the scientists sprinkled Ammonium Bicarbonate over the spilled gas to dilute its effect. This helped neutralise the gas till officials of the Pune Police and Fire Brigade transferred the remaining acetic acid into another tanker.

Published in: [Indianexpress](#)

‘Immunity passports’ for COVID-19 may lead to discrimination, intentional infections: scientists

CSIR –IICB

28 May, 2020

New Delhi, May 28 (PTI) As countries scramble to stem the spread of COVID-19, the debate over "immunity passports" is intensifying with some governments pushing for documents that certify a person immune and several experts saying the claim would not just be specious but also lead to discrimination and "intentional" cases.

With a vaccine several months, if not a year, away, the proposal for a document to certify that an individual has been infected and therefore immune to SARS-CoV-2, which causes the infection, is centre-stage of discussion as the world navigates its way out of the pandemic.

Looking for ways out of the restrictive physical distancing measures imposed to control the spread of the novel coronavirus, several governments, including Chile, Germany, Italy, the UK and the US, have suggested the use of "immunity passports".

Individuals in possession of an "immunity passport" could be exempt from physical restrictions and may return to work, school and daily life.

"An "immunity passport" is a certification that would mark an individual immune to SARS-CoV-2 infection," virologist Upasana Ray told PTI.

The rationale behind certifying people immune is the production and presence of antibodies against the virus, Ray, a senior scientist at the Kolkata-based CSIR-Indian Institute of Chemical Biology (IICB), explained.

India, however, has been more cautious in its approach.

"There is no evidence yet that a person infected with COVID-19 cannot get the infection again.

There are reports from South Korea of re-infections, so providing "immunity passports" on the basis of SARS-CoV-2 antibodies in the blood isn't feasible," Manoh Murhekar, director of ICMR's National Institute of Epidemiology in Chennai, told PTI.

India allows travel for those who have the Aarogya Setu app installed on their phones -- showing a green band declaring the person safe. This is based purely on self-declaration.

As cases of the novel coronavirus cross 5.6 million with more than 3,55,000 fatalities, the WHO has said there is no evidence to suggest that people who have recovered from COVID-19 and have antibodies are protected from a second infection.

In addition to the technical complexities, "immunity passports" also pose regulatory and ethical concerns, said experts.

"This idea of "immunity passports" can lead to great difficulty in administrative implementation, and is likely to be accompanied by widespread abuse in a variety of ways, especially for poor and underprivileged groups," said immunologist Satyajit Rath.

Writing in The Lancet, Alexandra L Phelan from Georgetown University Medical Center in the US noted that "immunity passports" would impose an artificial restriction on who can and can't participate in social, civic, and economic activities. This might also create a perverse incentive for individuals to seek out infection.

This will especially apply to people who are unable to afford a period of workforce exclusion, compounding existing gender, race, ethnicity, and nationality inequalities, he said.

"Such behaviour would pose a health risk not only to these individuals but also to the people they come into contact with," he wrote.

In countries without universal access to healthcare, those most incentivised to seek out infection

might also be those unable or understandably hesitant to seek medical care due to cost and discriminatory access, Phelan noted.

Adding to the discussion, IICB's Ray asked what would happen to those negative for anti-SARS-CoV-2 antibodies.

There is no evidence that herd immunity will develop, she said, adding that the duration it would last is unknown even if it somehow does.

Herd immunity is a form of indirect protection from infectious disease that occurs when a large percentage of a population has become immune to an infection, whether through vaccination or previous infections.

"Shall we wait for these people to get infected and attain immunity to be able to get certified? This might also lead to discrimination," she added.

There is no evidence that all individuals would produce good quality antibodies, or that the neutralising antibodies that would protect them from re-infections.

She added that antibodies just like other proteins may not persist in the body for long.

The IICB scientist explained that SARS-CoV-2 has many variants which differ at the genetic level.

Another problem with "immunity passports", Ray noted, is that mere production of antibodies does not imply they can neutralise or stop the virus from gaining entry in the host.

Rath, from the National Institute of Immunology (NII) in New Delhi, agreed with Ray, saying that while the technical idea of "immunity passports" is feasible in principle, there are many reasons why it is currently difficult in practice.

“A major part of the problem is to do with the technical issues involved with measuring the relevant "immunity",” Rath told PTI.

He said there are no validated tests to identify the actual levels of detectable immunity in the form of antibody amounts or the exact kinds of immunity showing strong enough correlations with real protection against infection to be usable as "immunity passport" thresholds.

Finding and validating these thresholds is likely to take time-consuming research, in part because these levels seem to be quite variable, Rath explained.

“Such work is ongoing, but I have not yet seen any substantive results. Further, how long these threshold levels are maintained over time will quite possibly differ from person to person, and therefore, there will be yet another problem for these "immunity passports" in terms of the length of their validity before they will need re-testing and "renewal",” he said.

Another Indian virologist, who did not want to be named, highlighted that not much is known about the false positivity in antibody test. It may depend on the geographical area and the prevalence of other existing diseases, he added.

“This means a person carrying ‘immunity passport’ may not have protective immunity. So it may not be a good practice to issue ‘immunity passports’ based on some rapid tests,” the virologist noted.

Considering the possibility of the novel coronavirus evolving even within a country, Ray said, re-infection with a different variant will not be surprising.

“Travelling to a different country or continent would also increase the probability of getting challenged by a different virus type against which the person might not be able to produce neutralising antibodies,” she explained.

“Today’s asymptomatic might become symptomatic under challenge with a different virus variant later, or if such people travel to a country where some other variant is dominating,” she said.

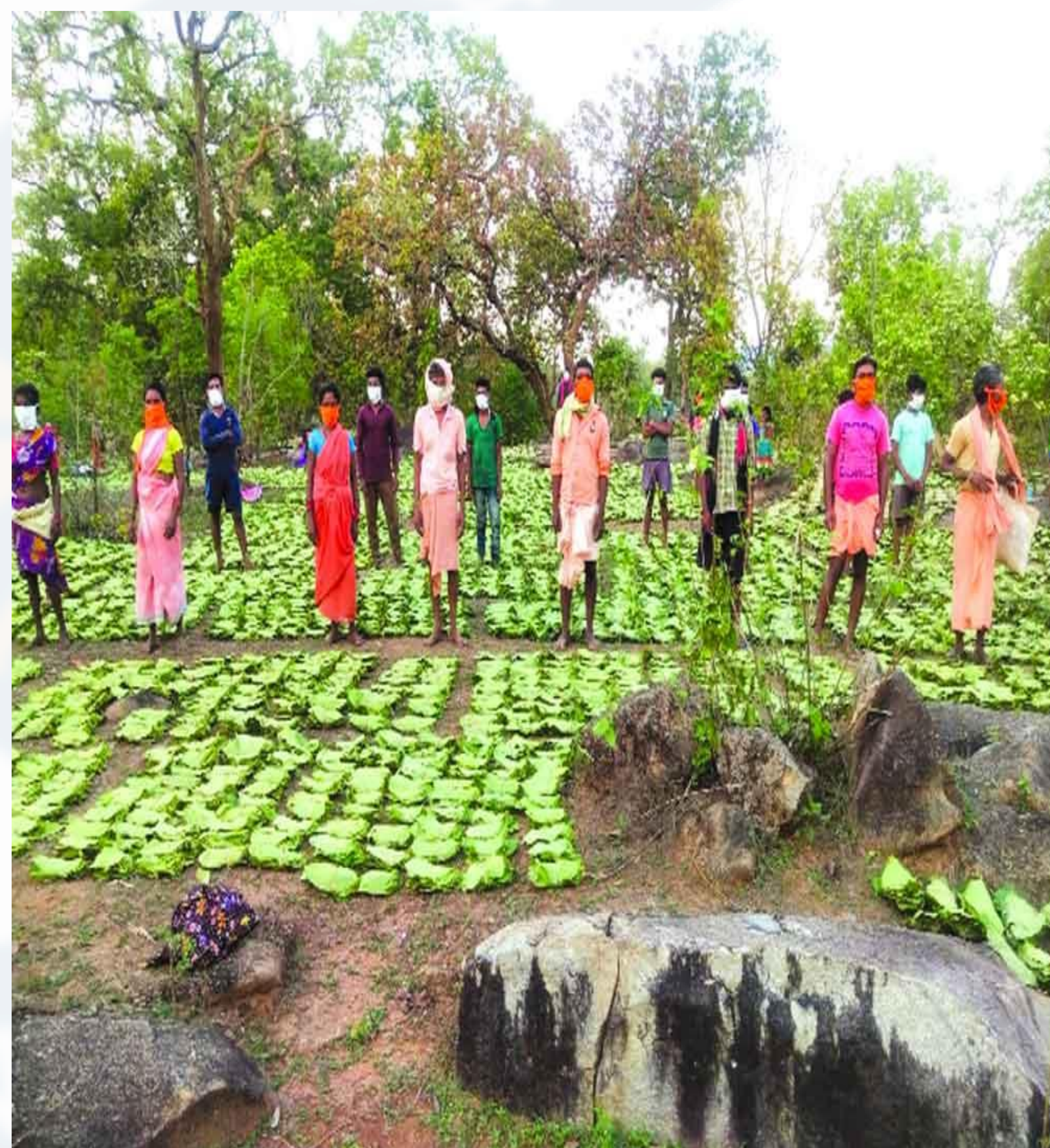
The scientists noted that Instead of depending solely on naturally obtained immunity, it is better to invest time, effort and money to develop carefully designed vaccine candidates that show cross neutralising properties, and are applicable universally. PTI SAR MIN MIN MIN

The road less travelled

CSIR -CFTRI

28 May, 2020

The state of Chhattisgarh is leading the entire nation in terms of forest conservation today. During the lockdown period, when forest-based economic activities were stalled throughout the country, Chhattisgarh registered good number of achievements under the leadership of Chief Minister Bhupesh Baghel. Amid lockdown, the state registered maximum participation in forest produce collection. On the same note, the revenue of forest dwellers is expected to be about `2,500 crore. According to the data received from TRIFED, one lakh quintal forest produce has been collected in the state so far. While the pandemic has destroyed the economy of the whole world, the collection of tribal forest produce in Chhattisgarh is keeping pace with the livelihood of tribals and simultaneously boosting the economy of the state.



The stay-at-home orders has deepened the issue of unemployment in the country. However, forest dwellers in Chhattisgarh are getting employment in gathering forest produce and providing forest cover. The new economic strategy of the state government involves bringing a big change in the life of the forest dwellers through forest produce. The state collects 15 lakh standard sacks of tendu leaves every year, through which 12 lakh 65 thousand collector families get employment. The value of tendu leaves have been increased to `4,000 per standard bag, giving them a direct benefit of `649 crore.

The state government has increased the number of forest products purchased through the minimum

support price mechanism from seven to 25 now. The forest produce is being procured through 866 hot markets. Ten lakh man-days of employment are being created through wood art development, lac bangles manufacturing, dona-pattal making, drug processing, honey processing, bell metal, terracotta handicrafts work and much more. The Forest Development Corporation is giving 14,000 youngsters a job opportunity through construction of bamboo tree guards, bamboo furniture manufacturing, planting of medicinal plants through Vanaushadhi Board. Similarly, with the help of CFTRI Mysore, production of Mahua based energy bar, chocolate, pickle, sanitiser, amla-based dehydrated products, tamarind candy, jamun juice and bell marmalade, are being planned.

The income of forest dwellers is increasing continuously due to the collection of minor forest produce. Tea plantations in Jashpur and Surguja districts directly benefit the beneficiaries. One thousand women have got jobs of sewing 50 lakh masks. In the current year, about 12 thousand women have received an additional income of three crore 23 lakh from primary processing of tamarind. This year, the target is of planting 70 lakh plants on the own land of the forest dwellers. As part of efforts to promote lac production, 36 thousand main farmers have been selected in 164 production areas. Apart from this, other forest-based activities have also created large employment opportunities.

15 sent home before COVID test report in HP, probe ordered

CSIR –IHBT

28 May, 2020

Hamirpur, May 28 (PTI) Fifteen COVID-19 patients in Himachal Pradesh's Hamirpur were sent home from quarantine centres while reports of their second tests were still awaited, prompting the district administration to order a probe, an official said on Thursday.

They were brought back and sent to COVID care centres after their test reports came back positive, he said.

These 15 people had returned from Maharashtra's Mumbai and Thane on a special train and were under institutional quarantine at Navodaya Vidyalaya, Doongri, Deotsidh and Nadaun, according to Hamirpur Deputy Commissioner Harikesh Meena.

Their first samples, which were sent to the Institute of Himalayan Bioresource Technology (IHBT), Palampur, had tested negative for COVID-19 on Sunday. Their samples were taken again and they tested positive on Wednesday night, he told reporters.

However, these people were sent back home on Wednesday afternoon on the basis of the results of their first tests, he added.

After the reports of the second round of tests came on Wednesday, Meena said, all sub-divisional magistrates were informed. The 15 people were brought back and sent to different COVID centres for isolation and treatment.

An inquiry has been ordered into the matter, he said.

The deputy commissioner appealed to all those who have been discharged after testing negative twice for COVID-19 to remain in home quarantine for at least two weeks for the safety of others.

Such persons should not mingle with others for 14 more days, Meena said.

There have been cases wherein a person has tested positive for COVID-19 after recovering from the disease, he said.

Himachal Pradesh has reported 277 cases of COVID-19 so far. Hamirpur has the highest number of active cases in the state at 85, according to official data. PTI CORR DJI DIV DIV

Central Institute Of Mining And Fuel Research (CSIR-CIMFR) Announces Jobs For Graduates, Diploma Candidates

CSIR –CIMFR

28 May, 2020

The CSIR-Central Institute of Mining and Fuel Research (CSIR-CIMFR), Dhanbad has invited application from graduates and diploma candidates for recruitment to the post of Technical Assistant. A total of 23 vacancies will be filled by the CIMFR through this recruitment. Applicants should not be more than 28 years of age. The upper age limit is relaxable upto 5 years for candidates belonging to SC/ ST categories and 3 years for OBC category. 'Upper age limit is also relaxable upto 5 for the regular employees working in CSIR laboratories/ Institutes, Government Departments, autonomous bodies and public sector undertakings,' the job notice reads.

The last date for submission of application forms, in offline mode, is July 25.

Job Details

Candidates will be selected on the basis of trade or skill test.

Vacancies will be filled in Geology, Chemistry, Zoology, Mining Engineering, Mechanical Engineering, Chemical Engineering and Electrical Engineering disciplines.

"These posts carry usual allowances like Dearness Allowance (DA), House Rent Allowance (HRA), Transport Allowance (T.A) etc. as admissible to the central government employees and as made applicable to CSIR. Council employees are also eligible for accommodation of their entitled type as per CSIR allotment rules depending on availability in which case HRA will not be admissible," CIMFR has said.

Published in: [Ndtv](#)

CSIR's new generation kit to test 50,000 samples in one go

CSIR –CCMB

28 May, 2020

New Delhi: In a major development that may help in doubling the testing capacity from existing one lakh to two lakh tests in a day, the Council of Scientific and Industrial Research (CSIR) has developed a new generation testing kit that would help in testing about 50,000 samples at one go.

The diagnostic kit christened as new generation sequencing testing kit has been developed by CSIR's Hyderabad-based Centre for Cellular and Molecular Biology (CCMB) – a premier research organisation in frontier areas of modern biology.

The new generation testing kit is completely different from the pooled RT-PCR testing kits as in the sequencing testing kits, any positive sample among the thousands of samples can be identified without testing all the samples separately. While in the pooled RT-PCR test, if ten samples are mixed and one of them is positive, then all ten samples have to be examined separately.

According to a senior CSIR official, the new testing kit will play a significant role in the surveillance of COVID-19 suspects. "The kit would prove to be a very important tool in identifying any potential containment zone having a higher prevalence of coronavirus cases. It can be best used for the purpose of surveying the disease at a faster rate," the CSIR official said, adding that it would be very cost-effective too.

Explaining about the procedure of new testing kit, the official said, "In the new test, next-generation sequencing of RNA is done by taking swab samples of COVID-19 suspects which help in conducting thousands of tests at one go."

According to the CCMB's director Dr Rakesh Mishra, the next generation testing kit is similar to the pooled

testing, but it's more comprehensive and its sensitivity is more accurate. "Even though 20-25 samples are tested in pooled testing, there are chances of getting inaccurate test reports, while in next-generation testing kits, there are least chances of any 'false' report as it diagnoses the samples with RNA sequencing test."

As per the official, the new kit would be available for the commercial use in a month as there are some procedural formalities that will take maximum one-month to get completed. "The CCM is in talks with a Bangalore-based company to bring this testing kit in the open market. Besides, the process of certification and approval from the ICMR is in progress," the official said.

Industry, research bodies warn of reckless use of disinfectants against Covid-19

CSIR –NCL

28 May, 2020

Alkali Manufacturers Association of India (AMAI), National Chemical Laboratory, Pune (CSIR-NCL) and the Mumbai-based Institute of Chemical Technology (ICT) have come together to spread awareness on the safe use of disinfectants that is at the center of the on-going fight against COVID-19.

There have been many instances of disinfection chambers being erected in the country which spray a mist of disinfectants on those passing through the chamber which could do more harm than good, the organizations said in a joint statement.

Quoting a World Health Organisation (WHO) advisory, they stated that the use of disinfectants such as sodium hypochlorite is for disinfecting surfaces and not human beings.

“We are privileged to get the support of two leading organisations involved in scientific research who have endorsed our views on safe disinfection after conducting laboratory tests”, said Jayantibhai Patel, President AMAI, the representative body of the alkali industry that produces sodium hypochlorite, chlorine, bleaching solution/powder, etc. the major chemicals used for disinfection.

According to Ashwini Kumar Nangia, Director, CSIR-NCL, sodium hypochlorite (NaOCl) or bleach or hypo must be used with utmost precautions as a disinfectant so as to avoid skin contact as it may harm the skin and cause irritation. Eyes should also be protected by using proper goggles/face shields.

He added, “High concentration of disinfectants can increase chemical exposure to users and may also damage surfaces. The diluted disinfectant solution should be uniformly applied to surfaces and allowed to remain wet and untouched for at least one minute for the chemical to inactivate pathogens and kill any microorganisms.”

“The Bureau of Indian Standards has classified sodium hypochlorite of 4-6 per cent concentration for household use. This concentration available commercially must be diluted with water by a skilled person to make the solution for disinfection,” said Professor A B Pandit, Vice-Chancellor ICT.

CSIR-NCL, ICT Mumbai, and AMAI are jointly suggesting 0.05 per cent (500 ppm) of bleach as a safe concentration for localised direct spray on abiotic surfaces, but excluding general misting and indoor/ outdoor fogging or fumigation. WHO guidelines do not allow the use of any type of mist tunnel, fogging, or fumigation of outdoor spaces.

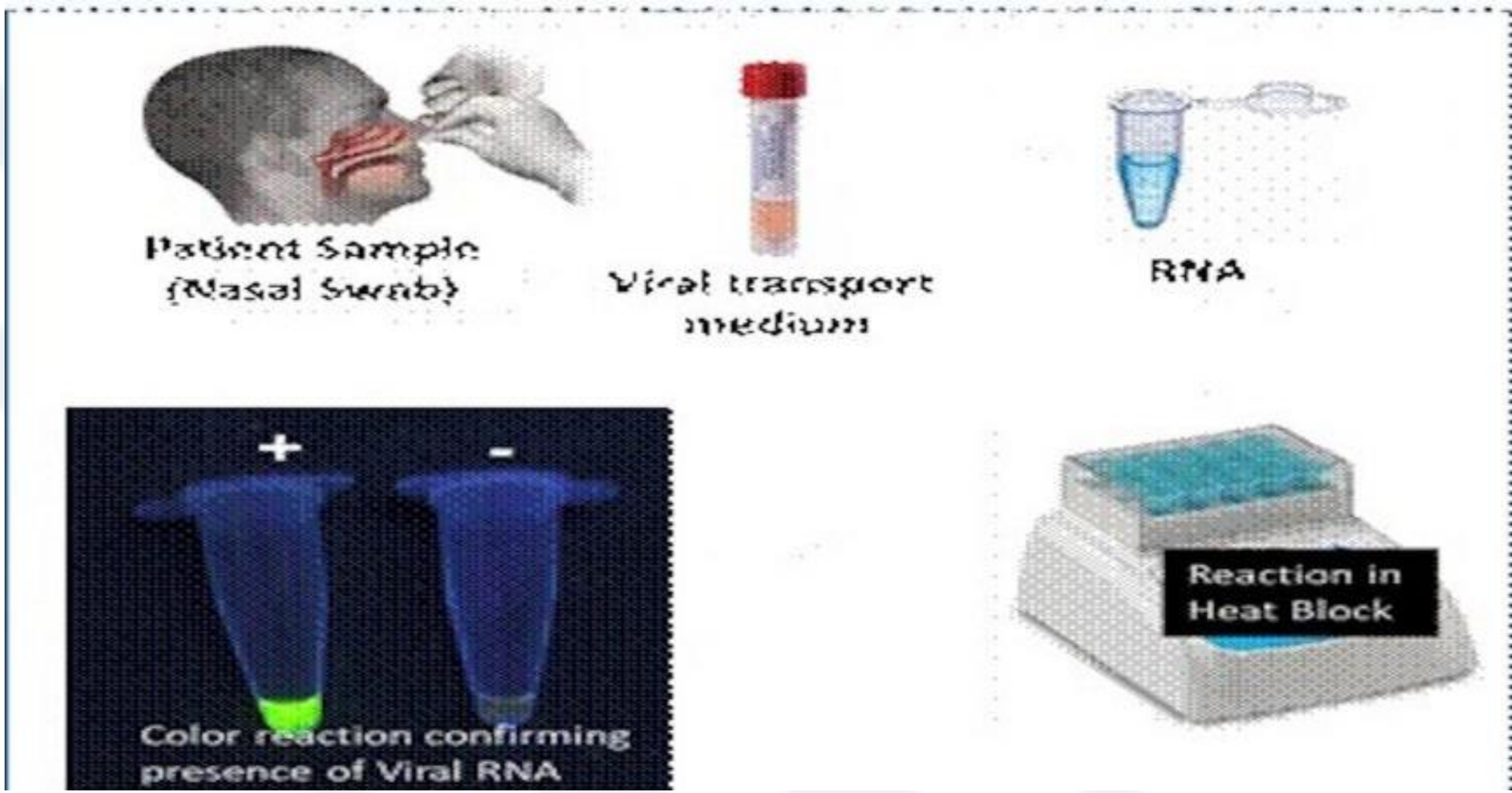
“Spraying individuals with disinfectants (such as in a tunnel, cabinet, or chamber) is not recommended under any circumstances. This could be physically and psychologically harmful and would not reduce an infected person’s ability to spread the virus through droplets or contact”, WHO stated.

The three organisations are of the view that 0.1-0.5 per cent (1000 to 5000 ppm) of bleach should be used for wiping/ cleaning surfaces with a cloth. The lower concentration of 0.1 per cent (1000 ppm) is suitable for general-purpose home/ office disinfection and a higher concentration of 0.5 per cent (5000 ppm) for hospitals and resistant pathogens settings.

CSIR-IIIM, Jammu signs MoU with RI

CSIR -IIIM

28 May, 2020



CSIR has partnered with Reliance Industries to develop, scale-up new Reverse Transcriptase-Loop Mediated Isothermal Amplification based COVID-19 diagnostic kit

As part of COVID-19 mitigation mission of country, CSIR has strategised its R&D to develop, integrate, scale-up, and deploy necessary technological interventions for combating Coronavirus pandemic in the country. Considering the multifarious problems created by coronavirus, which require interventions, the CSIR under the guidance of its Dr Shekhar Mande, Director General, CSIR has formed five verticals to coordinate various research activities into Digital and Molecular

Surveillance, Drugs & Vaccines, Rapid and Economical Diagnostics, Hospital Assistive Devices & PPEs, and Supply Chain and Logistics.

Since testing is vital component in COVID-19 mitigation, CSIR-IIIM, Jammu a constituent laboratory of CSIR has partnered with Reliance Industries to develop and scale-up a new Reverse Transcriptase-Loop Mediated Isothermal Amplification (RT-LAMP) based COVID-19 diagnostic kit for which a formal MoU has also been signed between CSIR-IIIM, Jammu and RI.

COVID-19 RT-LAMP test is a nucleic acid based test carried out from nasal /throat swab sample from patients. The test recipe has been developed and successfully demonstrated using synthetic templates. It is rapid (45-60 minutes), cost effective and accurate test. It has been tested with a small number of patients samples and validating the kit on more number of patient samples is planned and will be done together with RI.

The advantage of this test is that the RT-LAMP based COVID-19 kit components are easily available and these can be completely manufactured in India. While the, the current COVID-19 testing is done by real-time PCR their components are mostly imported. Further these tests are expensive; require highly trained manpower, costly instruments and a relatively high-end lab and cannot be deployed at remote locations in quarantine centres, airports and railway stations, etc.

On the other hand, the RT-LAMP test can be done in a single tube with minimal expertise in a very basic lab setup like mobile units / kiosks for testing at airports, railway stations, bus stands and other public places. The end detection of the test is a simple coloured reaction, which is easily visible in UV light, and now is being modified such that it can be detected in regular light.

After testing the accuracy of the kit, on a much larger number of patients, CSIR-IIIM and RI will jointly approach ICMR for approval. RI plans to rapidly scale up the tests for the larger

population and use it for easy, rapid and widespread diagnosis for COVID-19 detection for the larger interest of society.

With the formal launch of the RT-LAMP based diagnostic test, the COVID-19 testing will not only be more rapid, cheap, easy and accessible but also would go a long way quickly isolating the infected individuals and mitigating the spread of virus.

Dr Ram Vishwakarma, Director and Dr Sumit Gandhi, Principal Scientist from CSIR-IIIM and Dr Santanu Dasgupta, Senior Vice President, R&D and Dr Manish Shukla, General Manager R&D from RI side are monitoring this project.

CIMAP Transfers Hand Sanitiser Technology To Lucknow Company

CSIR –CIMAP

28 May, 2020



The herbal sanitiser gel contains essential oil, which has been found to be effective against a broad spectrum of microbes.

Dr Prabodh K Trivedi, Director, CSIR – CIMAP said, the herbal hand sanitizer has been clinically tested and found to be highly-effective against commensal pathogens. He also told that the product has been found to be more effective than the existing similar products in the market, which is because of the synergistic effect of the essential oils added in the formulation.

The company would start the for production of hand sanitizer very soon. Dr Ramesh Srivasata, Dr Puja Khare, Dr Ram Suresh, Dr CS Chanotiya and Dr Sudha Agarwal were present during the technology transfer.

LUCKNOW || The CSIR–Central Institute of Medicinal and Aromatic Plants (CIMAP) has transferred the technology of the hand sanitizer to Lucknow based company M/s Sai International. The MoU was signed by Bhaskar Jyoti Deuri, Controller of Administration, CIMAP and Vinay Shukla, M/s Sai International, at CSIR-CIMAP, Lucknow on Wednesday.

CIMAP had last month developed an alcohol-based herbal hand sanitiser in the wake of the growing demand for sanitisers amid the Coronavirus outbreak.

Published in: [The news agency](#)

एनसीएलने बनविला बॅक्टेरिया रोखणारा 'नॅनो कोटिंग' मास्क

पुणे, दि. २७ (प्रतिनिधी) - राष्ट्रीय रासायनिक प्रयोगशाळा (एनसीएल) यांनी विशिष्ट मास्क विकसित केला आहे. हे मास्क बॅक्टेरिया सेल्युलोज आणि नॅनो मटेरियलपासून बनवले गेले आहे. मास्कवर नॅनो कोटिंग आहे. यामुळे ९९.९९ टक्के बॅक्टेरिया रोखले जातात. हे मास्क ७२ तास वापरले जाऊ शकते. १५ दिवसांत १ लाख मास्क इचलकरंजी इथे तयार केले जाणार आहेत.

डॉ. सय्यद दस्तगीर, डॉ. महेश धरणे आणि डॉ. शुभांगी उंबरकर यांच्या नेतृत्वाखालील संशोधन गटाने सीएसआयआर-एनसीएलने पेटंट घेतलेल्या जीवाणूंच्या सेल्युलोजचा वापर नॅनो कोटिंग मास्कसाठी केला आहे. यामध्ये सूक्ष्मजीववाढीचे निरीक्षण आणि अभ्यास करण्यासाठी सूती कापड, जीवाणू सेल्युलोजचे द्रावण आणि नॅनो मटेरियलमध्ये बुडवून ठेवण्यात आले होते. या अभ्यासात जीवाणूंची वाढ रोखण्यात आली असून, फिल्टर म्हणून

इचलकरंजी येथे तयार होणार रोज ५ हजार मास्क

मास्कमध्ये वापरासाठी महत्त्वपूर्ण घटक आहे. सीएसआयआर-एनसीएलच्या वैज्ञानिकांनी स्पन बॉण्ड पॉलिप्रोपीलीन या वैद्यकीय श्रेणीच्या कपड्यांचा वापर करून जीवाणू फिल्टरेशनची कार्यक्षमता, द्राव्य घटकांच्या फिल्टरेशनची कार्यक्षमता, श्वासोच्छ्वास, ज्वलनशीलता इत्यादींसह विविध मापदंडांचा अभ्यास करण्यासाठी नमुना मास्क तयार केले.

कोईंबतूर येथील दक्षिण भारत वस्त्र संशोधन संघटना या शासकीय मान्यताप्राप्त वैद्यकीय वस्त्रोद्योगासाठी प्रमाणित करणाऱ्या नोडल एजन्सीने



गुणवत्ता मापदंडासाठी मास्क नमुन्यांची तपासणी केली आहे. त्याला मान्यता मिळाली आहे. आता सीएसआयआर-एनसीएलने पुण्याच्या सेटलॅब इंडिया या लघू आणि मध्यम उद्योग कंपनीला या तंत्रज्ञानाचा परवाना दिला आहे. इचलकरंजी येथील कारखान्यात या मास्कचे उत्पादन होणार आहे.

“सुरुवातीला डॉक्टर, हॉस्पिटलमध्ये नॅनो कोटिंग मास्क दिले जातील. त्यानंतर ते सर्वत्र उपलब्ध होतील. मास्क तयार करण्याचे काम सुरू झाले आहे.

- प्रभाकर इंगळे,

एनसीएल पब्लिकेशन अँड सायन्स कम्युनिकेशनचे प्रमुख.

मास्कची कार्यक्षमता ९९.९९ टक्के एवढी

अमेरिकन सोसायटी ऑफ टेस्टिंग अँड मटेरियल्स (ASTM)च्या मास्क संरक्षक मानकांनुसार जीवाणू फिल्टरेशन कार्यक्षमता तपासण्यासाठी स्टॅफिलोकोकस ऑरियस (बायोएरोसॉल्स) या मानवी रोगकारकाचा प्रयोग केला गेला, तेव्हा मास्कची कार्यक्षमता ९९.९९ टक्के एवढी निदर्शनास आली. रुग्णांच्या रक्त आणि शरीरातील स्रावांच्या शिडकावांपासून हा मास्क किती बचाव करू शकतो, हे पाहण्यासाठी केलेल्या चाचणीतही हा मास्क पात्र ठरला आहे.

World Metrology Day at NML, opens Water Flow System Facility

CSIR –NML

27 May, 2020



WITH water stress comes floods and drought, which exacerbates delivery and access to clean water supplies especially in citified areas like Metro Manila.

Thus, in celebration of World Met Day, the National Metrology Laboratory (NML) of the Industrial Technology Development Institute (DoST-ITDI) announces opening of its Water Flow Calibration Facility.

The P18 million infrastructure, acquired through a project on Strengthening Physical Metrology Capabilities of NML, aims to assist the country's water concessionaires in

improving their forecasting, monitoring, and management of water supplies.

Use of the facility hopes to address the problem of too much water or too little water. Further, it realizes one of the country's commitments in Legal Metrology to establish a metrological infrastructure for testing of water meters in the country. With this, buyers of water are protected from sellers of water.

NML is thus enjoining concessionaires of water utilities and water metering regulatory agencies of our government to harmonize their verification test procedures with the international standards.

Using water as reference liquid, the Automatic Flowmeter Calibration System can calibrate flowmeters with sizes ranging from DN (nominal diameter) 25 to DN 100. It has two test lines that can accommodate at most two units under test depending on size and type of flowmeter.

The Flow Laboratory started operation early this year providing calibration services to the land development and subdivision industry, concessionaires of water utilities, including the manufacturing, petroleum, and construction sectors.

Fully trained technical staff on Liquid Flow Measurement and Calibration are now preparing for accreditation of the facility's flow calibration service under the terms of ISO/IEC 17025:2017.

This Tea May Boost Immunity Against Coronavirus By Lowering Viral Activity

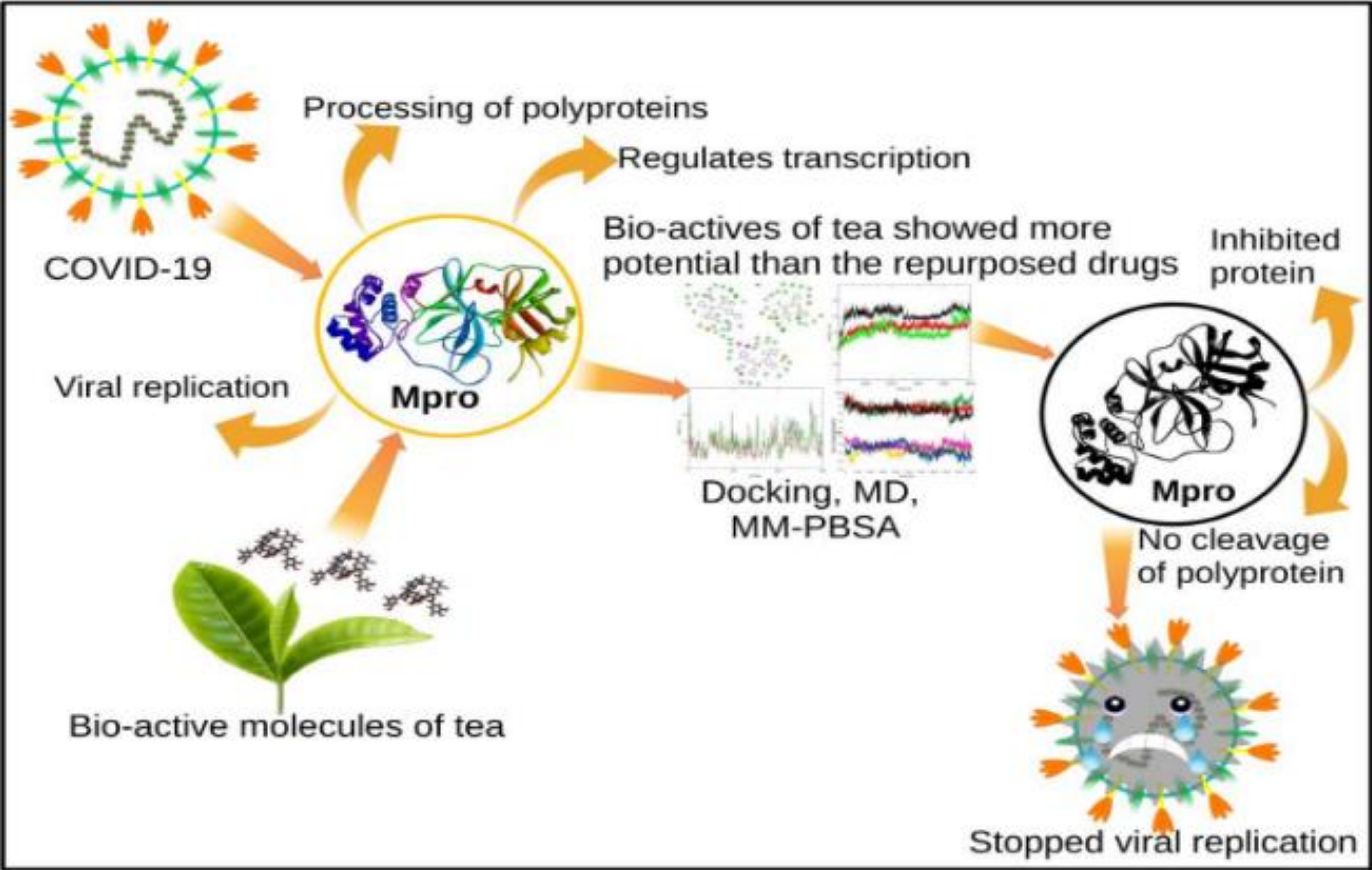
CSIR –IHBT

26 May, 2020

Indian scientists say that Kangra tea could be effective in boosting our immunity as they potentially block coronavirus activity better than the anti-HIV drugs. Scientists at the CSIR's Institute of Himalayan Bioresource Technology (IHBT) published a research paper in a peer-reviewed Journal of Biomolecular Structure and Dynamics, this April.

Basing themselves on computer models, the researchers screened 65 bioactive chemicals potential in binding to a specific viral protein, being more efficient than the available anti-HIV drugs currently used to treat COVID-19 patients, Sanjay Kumar told Times of India, who is the director of the Palampur-based IHBT and part of this research. Kumar, along with other scientists published the paper named "Identification of bioactive molecules from tea plant as SARS-CoV-2 main protease inhibitors."

Tea Chemicals Blocks Viral Activity



Kangra Tea May Boost Immunity Against COVID-19 Journal of Biomolecular Structure and Dynamics

He further said, "These chemicals might block the activity of the viral protein that helps the virus to thrive inside human cells." The report explains how Kangra tea could be effective in boosting immunity. This came at a time when the Indian Council of Medical Research is expected to replace hydroxychloroquine (HCQ) with anti-HIV drugs in order to reduce viral replication and boost immunity, according to its revised coronavirus protocol.

Based on Computer-Based Models



So far the researchers have only screened the Kangra tea chemicals harnessing computer-based models. "We have now got a lead. We will now carry out further validation study," Kumar said.

The study concludes, "This study showed Oolonghomobisflavan-A as a potential bioactive molecule to act as an inhibitor for the Mpro of SARS-CoV-2." Further, these Tea extracts showed to be an important constituent in hand sanitizers and herbal soaps that are recently developed.

The research comes after a previous study in which Indian and Japanese scientists claimed that Ashwagandha (a popular medicinal herb in Ayurveda system) might be an efficient drug for novel coronavirus.

Ashwagandha?

Kumar and the team also reported that natural chemicals from 'Ashwagandha' combined with the right proportions of New Zealand's 'Propolis' could be potential as an anti-COVID-19 drug candidate, according to a science ministry's paper on the work of various institutions towards fighting the coronavirus pandemic.

DAILAB teams at Indian Institute of Technology - Delhi and AIST Japan are also known to be working on natural compounds from Ashwagandha and Propolis for many years, said the ministry.



స్థానిక రసాయనాలతోనే సాధించారు!

కరోనా చికిత్స ఔషధాలకు ఏపీఐ రూపకల్పనలో ఐఐసీటీ ముందంజ

ఈనాడు, హైదరాబాద్: కరోనా చికిత్సలో ప్రపంచ వ్యాప్తంగా గుర్తించిన ఐదు ఔషధాలకు యాక్టివ్ ఫార్మాస్యూటికల్ ఇన్(గ్రేడియంట్)(ఏపీఐ) రూపొందించడంలో ఐఐసీటీ శాస్త్రవేత్తలు విజయవంతమయ్యారు. దేశీయ అవసరాలకు అనువుగా ఇందుకోసం అందుబాటులోని రసాయనాలనే వినియోగించటం విశేషం. కొవిడ్-19 ఔషధాలపై ప్రయోగాల్లో వీరితో పాటు పరిశోధన విద్యార్థులు, సాంకేతికత నిపుణులు రెండు నెలలుగా రాత్రింబవళ్లు శ్రమిస్తున్నారు. ఈ పరిశోధనలో ఐఐసీటీ సీనియర్ ప్రొఫెసర్ సైంటిస్టులు డా.రాజిరెడ్డి, డా.ప్రథమ ఎస్ మయంకర్ కీలక పాత్ర పోషించారు. పురోగతిని వీరిద్దరూ 'ఈనాడు'తో పంచుకున్నారు.

■ ఎటోలా, ఇన్ఫుయంజా, ఇతర వైరస్ సంబంధిత అంటువ్యాధుల చికిత్సకు వాడే ఔషధాలు కరోనా వైరస్ పై ఏ మేరకు పనిచేస్తున్నాయనే సమాచారంపై అధ్యయనం మొదలెట్టాం. ప్రపంచ ఆరోగ్య సంస్థ గుర్తించిన ఐదు ఔషధాలు ఫావిపిరవిర్, రెమిడిసివిర్, ఉమిపెనోవిర్, టోలాఫ్నవిర్, క్లో



డాక్టర్ రాజిరెడ్డి

డాక్టర్ ప్రథమ

త్రిన్/హైడ్రాక్సీ క్లోక్విన్కు సంబంధించిన మాలిక్యుల్స్ అభివృద్ధిపై దృష్టిపెట్టాం.

■ ఇప్పటికే కొవిడ్పై పనిచేస్తాయని గుర్తించిన ఔషధాల ఏపీఐని ప్రయోగాలలో అభివృద్ధి చేశాం. ఇందుకు కావాల్సిన ముడిపదార్థాల కోసం దిగుమతులపై ఆధారపడకూడదని స్థానికంగా లభించే రసాయనాలను ఉపయోగించుకున్నాం. చౌకలో

ఎప్పటికీ అందుబాటులోకి..

కొవిడ్పై ఐఐసీటీ అభివృద్ధి చేసిన ఏపీఐ పలు దశలు దాటుకుని త్వరలోనే బెషదంగా భారత మార్కెట్లోకి వస్తుందనే విశ్వాసం మాకుంది. అలాంటి వాటిలో ఫావిపిరవిర్ ఒకటి. ఇది మార్కెట్లోకి రావడానికి ముందు ప్రయోగ పరీక్షలు, డీసీఐఐ సిఫారసులపై ఆధారపడి ఉంటుంది. ప్రయోగ పరీక్షల ఫలితాలు సానుకూలంగా ఉంటే ఒకటి రెండు నెలల్లో మార్కెట్లో అందుబాటులోకి వస్తుందని విశ్వసిస్తున్నాం.

- డాక్టర్ రాజిరెడ్డి, డాక్టర్ ప్రథమ

ఉత్పత్తి ప్రక్రియను అభివృద్ధి చేశాం. ఫలితంగా బెషదంగా మార్కెట్లోకి వస్తే దర చాలా తక్కువగా ఉంటుంది.

■ ఫావిపిరవిర్ జెనరిక్ బెషదం. ఏపీఐ తయారీలో ఆరు వారాల్లోనే పురోగతి సాధించాం. ఇతర పద్ధతుల్లో ఏపీఐని అభివృద్ధి చేసి సాంకేతికతను ఒక బెషద కుప్పెనీకి బదలాయించాం. ఆ సంస్థ డ్రగ్ కంట్రోలర్ జనరల్ ఆఫ్ ఇండియా(డీసీఐఐ)ని సంప్రదించగా మార్కెట్లోకి తీసుకురావడానికి ముందు ప్రయోగ పరీక్షలకు సిఫారసు చేసింది. రెమిడిసివిర్, ఉమిపెనోవిర్, బెషదాల తయారీకి అవసరమైన ఇంటర్మీడియట్(ముడిపదార్థాల తయారీ దశ) తయారీ విధానాన్ని అభివృద్ధి చేశాం. ఈ సాంకేతికతలను కొన్ని ఇతర బెషద సంస్థలకు బదిలీ చేసే పనిలో ఉన్నాం.



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