

Name of Newspaper : Press Information Bureau

Date of Publication : 12-04-2020

Source :

Ministry of Science & Technology
CSIR-Centre for Cellular and Molecular Biology
(CCMB), Hyderabad is Engaged in the Fight Against
COVID-19 on Multiple Fronts

Posted On: 12 APR 2020 11:45 AM by PIB Delhi

CSIRs constituent leading biology lab CCMB based in Hyderabad is employing several tools and approaches in the countries fight against COVID-19.

Some of the key recent highlights are:

Testing patient samples

CCMB is an authorized testing centre for COVID-19 and receives patient samples from government hospitals across 33 districts of Telangana to check for SARS-CoV-2 virus. Currently, test capacity is around 350 samples a day.

Training on COVID-19 Testing

It has also trained 25 medical doctors, technical staff and students from five government hospitals - NIMS, IPM, Govt Fever Hospital in Hyderabad and Kakatiya Medical College, Warangal. These trained people have been deployed for the testing activities at their respective hospitals. Further, CSIR-CCMB has also created training videos on best practices for handling patient samples and on RT-PCR. These videos are available for authorized centers and can be got by contacting director@ccmb.res.in

Sequencing of the SARS-CoV-2 genome

CSIR labs are leading the way in genome sequencing of the Corona Virus and CCMB is performing Next Generation Sequencing and analysis to map out the whole genome sequence of the SARS-CoV-2 virus. The patient samples with CCMB that show high viral load are chosen for genome analyses. CCMB has sequenced a few patient viral isolates and aims to sequence several hundred virus isolates in next 3-4 weeks.

Culturing SARS-CoV-2 Virus for Testing Repurposed & New Drugs

A key tool lacking for the R&D community is the lack of viral cultures to test repurposed drugs, or new drugs or new molecules predicted by various molecular modelling. CSIR-CCMB has been engaged in this task and is setting up a system for culturing the SARS-CoV-2 virus in Vero cell line which are permissive for growth of viruses. It is hoped to be ready soon.

Lastly, CCMB has also been actively engaged in conveying various precautions and advisories on Corona Outbreak by innovative means in regional languages on social media platforms to the public at large.



Testing of Corona Samples



Training of Medical Staff on RT-PCR

KGS/(DST-CSIR)

(Release ID: 1613535)

Name of Newspaper : All India Radio

Date of Publication : 12-04-2020

Source :

CSIR-Centre for Cellular and Molecular Biology in Hyderabad engaged in fight against COVID-19 on multiple fronts

Apr 12, 2020, 1:19 PM

Council of Scientific and Industrial Research, CSIR's constituent leading biology lab, Centre for Cellular and Molecular Biology, CCMB based in Hyderabad is employing several tools and approaches in the country's fight against COVID-19.

CCMB is an authorized testing centre for COVID-19 and receives patient samples from government hospitals across 33 districts of Telangana to check for SARS-CoV-2 virus. Currently, test capacity is around 350 samples a day.

It has also trained 25 medical doctors, technical staff and students from five government hospitals - NIMS, IPM, Govt Fever Hospital in Hyderabad and Kakatiya Medical College, Warangal.

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CCMB has also been actively engaged in conveying various precautions and advisories on Corona Outbreak by innovative means in regional languages on social media platforms to the public at large.

Name of Newspaper : All India Radio

Date of Publication : 12-04-2020

Source :

CCMB undertakes Genome Sequencing of Coronavirus jointly with IGIB

Apr 12, 2020, 4:09 PM

The Hyderabad based Centre for Cellular and Molecular Biology of the CSIR is hopeful of coming out with crucial conclusions which are relevant for practical applications relating to Coronavirus. CCMB Director Dr Rakesh K Mishra told AIR Correspondent in an exclusive talk, that the institute has undertaken the Genome Sequencing of Coronavirus jointly with the Institute of Genomics and Integrative Biology (IGIB).

He expressed hope that in next 3-4 weeks the CCMB will be completing several hundreds of isolates and able to reach at some conclusions which will be relevant in practical applications to tackle Coronavirus. Dr Rakesh said over hundred isolates of Coronavirus have been sequenced so far and several hundred isolates will be sequenced in next few weeks. He said genome sequencing will give major understanding about Coronavirus and to know how successful a vaccine or medicine is.

Dr Rakesh, who is a member of the high level advisory committee of Telangana state government, also advised to shift the strategy of Coronavirus testing to anti body-based testing which is cheaper and easy to do. He said pooling of samples will enhance testing capacity by 5 fold. He further said the new strategy, the antibody based testing can be done by a health care worker also.

Name of Newspaper : India Education Diary Bureau

Date of Publication : 12-04-2020

Source :

CSIR-Centre for Cellular and Molecular Biology (CCMB), Hyderabad is Engaged in the Fight Against COVID-19 on Multiple Fronts

Apr 12, 2020

New Delhi: CSIRs constituent leading biology lab CCMB based in Hyderabad is employing several tools and approaches in the countries fight against COVID-19.

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Name of Newspaper : Orissa Diary

Date of Publication : 12-04-2020

Source :

Dr. Harsh Vardhan appreciates efforts of CSIR and its constituent labs in countering COVID-19

Apr 12, 2020



New Delhi: Minister for Health and Family Welfare and S&T and ES Dr. Harsh Vardhan today reviewed the steps undertaken by CSIR and its constituent 38 labs towards mitigation of Corona Virus outbreak in the country. He met all the CSIR lab directors and DG CSIR, Dr Shekhar C Mande through a video conference.

Dr Shekhar C Mande apprised the Minister of the recent initiative of setting up of Core Strategy Group (CSG) and the five verticals under which the COVID-19 related activities are being carried out. The five verticals namely: Digital and Molecular Surveillance; Rapid and Economical Diagnostics; New Drugs / Repurposing of Drugs and associated production processes; Hospital Assistive Devices and PPEs; and Supply Chain and Logistics Support Systems are being reviewed. Dr Mande also mentioned that CSIR is working in close partnership with major Industries, PSUs, MSMEs and other departments and ministries at this time of crisis in the country.

The Minister was happy to note that many CSIR labs are engaged in testing of patient samples with CSIR-CCMB, CSIR-IGIB, CSIR-IIIM and CSIR-IMTECH already testing and CSIR-IHBT, CSIR-NEERI and CSIR-IICB having just received approval. With few more CSIR labs like CSIR-CDRI, CSIR-IITR and CSIR-NEIST getting ready for testing and CSIR-CLRI, CSIR-NIIST and CSIR-NIO supporting State Governments with RT-PCR machines, 14 CSIR labs are contributing to Corona Virus diagnosis. He appreciated the efforts of CSIR-IGIB which has developed rapid and cheap Paper based diagnostic test and CSIR-IICB for initiating plasma based therapy for coronavirus patients. Dr Rakesh Mishra, Director CSIR-CCMB, informed that nearly 500 sequences of Corona Virus are expected from CSIR in the next 3-4 weeks and Dr Anurag Agrawal, Director CSIR-IGIB informed that CSIR is working closely with TCS and Intel and others in developing a digital platform which will help in surveillance of corona outbreak in the country.

Director, CSIR-IICT, Dr. Chandrashekhar apprised the Minister of the recent developments in the synthesis of the repurposed drugs and small Molecules and APIs including Remdesivir, Favipiravir, Arbidol, among others and that CSIR was closely working with Pharma Industry. The Minister appreciated that CSIR is working closely with Ministry of AYUSH for Preventive and Preventive and prophylactic, symptom management and add-on interventions to the modern medicine treatments. Dr Ram Vishwakarma, Director CSIR-IIIM informed the Minister that CSIR and Ministry of Ayush have planned jointly to take up four botanicals *Withania somnifera*, *Tinospora cordifolia*, *Glycyrrhiza glabra* and Ayush-64 for development.

Director, CSIR-NAL highlighted CSIR initiatives under the vertical Hospital Assistive Devices and PPEs, where in CSIR labs are working with BHEL and BEL on Ventilators, Oxygen Enrichment Devices and CSIR labs are also developing 3-D printed face shields, face masks, gowns and other protective equipment.

Dr. Harsh Vardhan also appreciated that many CSIR labs are helping the frontline workers, police and other citizens by preparing and distributing safety items and devices in large quantities. He emphasized on the need for scientists across CSIR and other ministries to work together and come up with S&T based solutions to tackle the challenge thrown by the current pandemic. He expressed that India has high expectations from its scientific community and he is sure that the community will rise up and deliver in this time of need.

Name of Newspaper : Telangana Today

Date of Publication : 12-04-2020

Source :

Hyderabad-based CCMB pitches into COVID-19 battle

In the last one month, the CCMB researchers conducted a series of training sessions to equip laboratory technicians and healthcare workers with knowledge on conducting the Coronavirus diagnostic tests

By Author Telangana Today | Published: 12th Apr 2020 9:06 pm

Hyderabad: As part of its efforts to understand novel Coronavirus (SARS-CoV2) better and spread awareness about it among the general public, city-based Centre for Cellular and Molecular Biology (CCMB) has launched multiple initiatives on COVID-19.

The premier genetic research institute has already launched Coronavirus diagnostic testing facility in Hyderabad with a capacity to conduct 600 to 800 tests per day.

However, what many do not know is the fact that in the last one month, the CCMB researchers conducted a series of training sessions to equip laboratory technicians and healthcare workers with knowledge on conducting the Coronavirus diagnostic tests in high-end laboratories.

At present, Telangana has six laboratories to conduct Coronavirus diagnostic tests, including Gandhi Hospital, CCMB, Institute of Preventive Medicine (IPM), Osmania Medical College, Fever Hospital, and Nizam's Institute of Medical Sciences (NIMS).

The researchers at CCMB have trained 25 doctors, technical staff and students from these State-run healthcare institutions, including Kakatiya Medical College, Warangal. It also created training videos on best practices for handling patient samples and on conducting tests on PCR (Polymerase Chain Reaction), which can be made available when contacted.

SARS-CoV2 genome sequencing

Along with other genetic research laboratories affiliated to Council for Scientific and Industrial Research (CSIR), the CCMB has undertaken genome sequencing of Coronavirus. The research institute is performing Next Generation Sequencing (NGS) and analysis to map out the whole genome sequence of the SARS-CoV-2 virus.

Officials said that close to 500 patient samples from across the country with high viral load are chosen for genome analyses. The institute has sequenced a few patient viral isolates and aims to sequence several hundred virus isolates in next 3 to 4 weeks.

SARS-CoV2 culture for new drugs

To develop repurposed drugs for the novel Coronavirus, researchers across the country need access to viral cultures, and to ensure the research community has access to enough viral cultures, CCMB is involved in the process of setting-up a system to culture SARS-CoV2 virus. Senior CCMB researchers said that such viral cultures are likely to be ready in the coming days.

Name of Newspaper : News Time Telugu

Date of Publication : 12-04-2020

Source :

కోవిడ్-19పై సీసీఎంబీ బహుముఖ పోరు

Apr 12, 2020



న్యూఢిల్లీ, ఏప్రిల్ 12 (న్యూస్టైమ్): హైదరాబాద్ కేంద్రంగా పనిచేస్తున్న సీఎస్ఐఆర్ ఆధ్వర్యంలోని సీసీఎంబీ కోవిడ్-19పై దేశం చేస్తున్న పోరాటంలో తగు సాధనాలను సిద్ధం చేస్తోంది. వీటిలో ప్రధానంగా రోగుల నమూనాల పరీక్ష కీలకమైనది. కోవిడ్-19ని గుర్తించడానికి సీఎంబీ అధీకృత పరీక్షా కేంద్రంగా ఉంది. సార్స్-సిఓవి-2 వైరస్ కోసం రోగనిర్ధారణ చేయడానికి తెలంగాణలోని 33 జిల్లాలలోని ప్రభుత్వ ఆసుపత్రుల నుండి రోగి నమూనాలను స్వీకరిస్తుంది. ప్రస్తుతం రోజుకు 350 నమూనాలు పరీక్ష చేసే సామర్థ్యం కలిగి ఉంది. కోవిడ్-19 పరీక్షలు చేయడంలో శిక్షణ రెండోది.

తెలంగాణలోని అయిదు ప్రభుత్వ ఆస్పత్రులలో పనిచేస్తున్న 25 వైద్యులు, సాంకేతిక సిబ్బంది, వైద్య విద్యార్థులకు సీసీఎంబీ శిక్షణ ఇచ్చింది. వీరు సంబంధిత ఆస్పత్రుల రోగనిర్ధారణ పరీక్ష కేంద్రాల్లో పరీక్షలు నిర్వహిస్తున్నారు. అంతేకాకుండా సీఎస్ఐఆర్-సీసీఎంబీ రోగ నిర్ధారణ పరీక్షలకు ఉన్న ఉత్తమ పద్ధతులను వివరిస్తూ వీడియోలు చిత్రికరించింది. ఇవి అధీకృత కేంద్రాల్లో లభ్యమవుతాయి. అలాగే director@ccmb.res.inని కూడా సంప్రదించి పొందవచ్చు.

సార్వ-సీఓవి-2 జన్యు సీక్వెన్సింగ్‌లో భాగంగా, సీఎస్‌ఐఆర్ ల్యాబ్‌లలో కరోనా వైరస్ జన్యు శ్రేణి నిర్ధారణ చేయడానికి తగిన శోధనలు చేస్తుంటే, సీసీఎంబీ కొత్త తరం జన్యు విశ్లేషణ చేసి వైరస్‌కి సంబంధించిన మొత్తం జన్యు శ్రేణిని పరిశోధించే పనిలో ఉంది. వివిధ రోగుల నుండి సమీకరించిన నమూనాలను విశ్లేషించి మరో 3-4 నెలల్లో వైరస్‌లపై కొన్ని ఫలితాలను సాధించే దిశగా కృషి జరుగుతోంది. అదే విధంగా, సార్వ సీఓవి-2 వైరస్ కల్చరింగ్ ద్వారా బహుళ ప్రయోజన, కొత్త ఔషధాల శోధనకూ కృషిచేస్తోంది. పరిశోధన, అభివృద్ధిలో ఇప్పటి వరకు వైరస్ కల్చరింగ్ ద్వారా కొత్త ఔషధాల దిశగా కానీ, బహుళ ప్రయోజన ఔషధాల తయారీ కోసం కానీ కీలకమైన సాధనాలు లోపం ఉంది.

ఆ సవాలును అధిగమించి ఇప్పుడు సీఎస్‌ఐఆర్, సీసీఎంబీ పరిశోధనలు సార్వ సీఓవి-2 నేపథ్యంలో ఊపందుకున్నాయి. ఇది త్వరలో ఒక మంచి ఫలితం ఇస్తుందని ఆశాభావం ఉంది. మరోవైపు, కరోనా విషయంలో ప్రజల్లో చైతన్యం కలిగించే కార్యక్రమాలలో కూడా సీసీఎంబీ చురుకుగా భాగస్వామ్యం అయి, వివిధ ప్రాంతీయ భాషల్లో సృజనాత్మకంగా సందేశాలు, జాగ్రత్తలు, సూచనలను ప్రజల చెంతకు చేరుస్తోంది.

Name of Newspaper : The Indian Express

Date of Publication : 13-04-2020

Source :

Coronavirus lockdown: Looking to flatten curve in 2-3 weeks, says govt

Health Minister Harsh Vardhan said, “We have had only 3.2 cases per 1 million population. Even among them, most (patients) have mild symptoms and will recover fully. Only 15-20 per cent of those who have tested positive actually require hospitalisation.”

By: **Express News Service** | New Delhi | Updated: April 13, 2020 7:11:23 am



Pointing out that India has the “lowest number” of confirmed coronavirus cases in the world, Health Minister Dr Harsh Vardhan on Saturday said that the government is looking at flattening the curve over the next three or four weeks, and the country will cross the 2-lakh COVID-19 testing mark in the next few days.

Vardhan said, “We have had only 3.2 cases per 1 million population. Even among them, most (patients) have mild symptoms and will recover fully. Only 15-20 per cent of those who have tested positive actually require hospitalisation.”

The minister on Saturday chaired a review meeting of the Council of Scientific and Industrial Research (CSIR) and activities of the 38 laboratories across the country that work under the CSIR in the battle against COVID-19.

CSIR director-general Dr Shekhar C Mande apprised Vardhan of the recent initiative of setting up of a Core Strategy Group (CSG) and the five verticals under which coronavirus-related activities are being carried out. These verticals are Digital and Molecular Surveillance; Rapid and Economical Diagnostics; New Drugs/ Repurposing of Drugs and associated production processes; Hospital Assistive Devices and PPEs; and Supply Chain and Logistics Support Systems.

The Health Minister said, “Over the next three or four weeks we hope to flatten the curve. Of course, the virus will stay in some form or the other, so research being carried out by CSIR is not just about fighting the pandemic but also to help us in future. The vaccine and drug discovery has to continue. One of the most important outcomes is that of genome sequencing, which is being carried out by CCMB-Hyderabad. Hopefully, this can connect to the virus genome sequencing being carried out in other countries.”

Dr Rakesh Mishra, director, CSIR-CCMB, said that nearly 500 sequences of coronavirus are expected from CSIR in the next three or four weeks. “This work will help us understand the virulence and character of the virus, how fast it is mutating, and its exact path of transmission,” Vardhan said.

Delhi based CSIR-IGIB has recently developed a “rapid and cheap paper-based diagnostic test” and CSIR-IICB has initiated plasma-based therapy for coronavirus patients.

Addressing the heads of various science agencies, the Health Minister said, “...remember, we are running against time here. It is true that whatever you do today will benefit the future, but please remember that we are at war and that we need to minimise damage. Unlike research that usually takes months or years, we need to be faster — or else it will be too late.”

Name of Newspaper : Telangana Today

Date of Publication : 13-04-2020

Source :

Telangana  Today

CCMB joins fight against Covid-19 pandemic

CITY BUREAU

Hyderabad

As part of its efforts to understand novel coronavirus (SARS-CoV2) better and spread awareness about it among the general public, city-based Centre for Cellular and Molecular Biology (CCMB), Hyderabad has launched multiple initiatives on Covid-19.

The premier genetic research institute has already launched coronavirus diagnostic testing facility in Hyderabad with a capacity to conduct 600 to 800 tests per day.

Training sessions

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SARS-CoV2 culture for new drugs

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Name of Newspaper : Eenadu Telugu

Date of Publication : 13-04-2020

Source :

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epaper.eenadu.net

వైరస్పై సీసీఎంబీ బహుముఖ యుద్ధం

ఈనాడు, ఢిల్లీ: సెంటర్ ఫర్ సెల్యులర్ అండ్ మాలిక్యులర్ బయాలజీ (సీసీఎంబీ).. కరోనా వైరస్పై బహుముఖ యుద్ధం ప్రకటించి దేశవ్యాప్తంగా ఆందరి దృష్టిని ఆకర్షిస్తోంది. కొవిడ్ పరీక్షలు నిర్వహించడం, అందులో మానవ వనరులకు శిక్షణ ఇవ్వడం, వైరస్ జన్యుపరిణామక్రమాన్ని తనిపెట్టడానికి కంప్యూటరీ పాటూ వైరస్ కల్చర్పైనా పరిశోధనలకు శ్రీకారం చుట్టింది. హైదరాబాద్లోని సీసీఎంబీ కేంద్రం తెలంగాణలోని అన్ని జిల్లాల నుంచి వచ్చిన నమూనాలను పరీక్షిస్తోంది. ఇప్పటి రోజూ 350 పరీక్షలు జరుగుతున్నాయి. ఆలాగే పరీక్షలు నిర్వహించడంలో నిమ్స్, ఐపీఎం, హైదరాబాద్ పీవర్ ఆసుపత్రి, వరంగల్ కాకతీయ మెడికల్ కాలేజీలకు చెందిన 25 మంది వైద్యులు, టెక్నికల్ సిబ్బంది, విద్యార్థులకు శిక్షణ ఇచ్చింది. ఇప్పుడు చీరంతా తమ ఆసుపత్రుల్లో నమూనాలను పరీక్షిం



చగలుగుతున్నారు. ఆర్.జి.పీ.ఎస్.ఆర్.లో రోగి నమూనాలను ఎలా పరీక్షించాలో చెబుతూ వీడియోపాఠాలనూ సీసీఎంబీ అందిస్తోంది. కరోనా జన్యు పరిణామక్రమాన్ని గుర్తించడానికి ముందడుగు వేసింది. ఈ వైరస్కు సంబంధించిన మొత్తం జన్యు పరిణామక్రమ పటాన్ని రూపొందించడానికి భవిష్యత్ తరం పరిణామక్రమంపై విశ్లేషణ మొదలుపెట్టింది. ఇందు కోసం వైరస్ ప్రభావం ఆత్మధికంగా ఉన్న రోగుల నమూనాలను సీసీఎంబీ సేకరించింది. ఇప్పటికే ఈ సంస్థ కొంతమంది రోగుల

నుంచి సేకరించిన వైరస్ను ఐసోలేట్ చేసింది. వచ్చే మూడు నాలుగు వారాల్లో పరిణామక్రమాన్ని గుర్తించాలని లక్ష్యంగా పెట్టుకుంది.

వైరస్ కల్చర్పైనా..

ప్రస్తుతం అందుబాటులో ఉన్న ఔషధాలను కొత్త వైద్య ఆవసరాల కోసం పరీక్షించడానికి వైరస్ కల్చర్ అందుబాటులో లేకపోవడం పరిశోధకులకు ఇబ్బందికరంగా మారిన విషయాన్ని సీసీఎంబీ గుర్తించింది. అందుకే సీఎస్ఐఆర్-సీసీఎంబీలు వైరస్ కల్చర్పై పరిశోధనలకు ఒక వ్యవస్థను ఏర్పాటుచేశాయి. ఇందులో వైరస్లను వృద్ధిచేసే వాటి కల్చర్ను పరీక్షిస్తారు. త్వరలో ఈ కొత్త వ్యవస్థ అందుబాటులోకి రానుంది.

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Indian Researchers Work Round The Clock In Quest To Contain Coronavirus

The biggest hurdle to amping up testing has been a shortage of test kits and laboratories with skilled technicians capable of conducting these tests — which is where an institute like the CCMB comes in.

By Debdutta Paul



Kolkata, WEST BENGAL — Over four days in March this year, a group of postdoctoral researchers, postgraduate students working towards their PhDs, and medical personnel from elsewhere in Telangana gathered in the quiet laboratories of the Centre for Cellular and Molecular Biology, or CCMB, in Hyderabad.

Their mission: To assist in India's quest to contain the march of the novel coronavirus by quickly and safely setting up a facility for testing samples gathered from patients suspected of COVID-19, the illness caused by the new virus.

As India enters the third week of a national lockdown, Chief Ministers from across the country have urged the Union Government to consider extending restrictions until there is clear evidence that the virus has been contained. Public health experts, in the meantime, have stressed the urgent need to test as many people as soon as possible to ensure those infected can be treated and kept from unknowingly infecting those around them.

On the 9th of April, the Indian Council of Medical Research, or ICMR, said that India had tested for the novel coronavirus in samples gathered from 130,792 people — a relatively small number in a country of 1.3 billion people.

Thus far, the biggest hurdle to amping up testing has been a shortage of test kits and laboratories with skilled technicians capable of conducting these tests — which is where an institute like the CCMB comes in.

On March 22, CCMB received the necessary formal clearances to begin processing testing samples for COVID-19 — but first the centre needed to ensure they were ready for the task. This account of how CCMB geared up to this task shows how young researchers in India are throwing themselves into the country's efforts to contain COVID-19, and reveals the successes, and the challenges, of quickly ramping up testing for a highly contagious virus in a country with an overstretched public health system.

“I wasn't going to pass up on the chance to be even slightly useful in fighting a pandemic,” said Annapoorna P K, a postgraduate student in CCMB.

“There are about 12 people for RNA isolation and 28 for RT-PCR. There are specialised domains and we have enough back up,” said Dr Rakesh Mishra, CCMB's director, who has led the team in concert with faculty members Dr Archana Siva, Dr H H Krishnan, biosafety officer Raghunand Tirumalai, and Principal clinical geneticist Karthik Tallapaka.

Testing For Coronavirus

Institutes like CCMB test for the presence of the novel coronavirus, technically called SARS-CoV-2, using a process called a Real Time - Polymerase Chain Reaction, RT-PCR. The test takes between two and three hours to prepare, following which the reaction takes about 1.5 hours. Once set up, each RT-PCR Machine can process 48 samples at a time, significantly speeding up the testing process.



Given how contagious the coronavirus is, each stage of the process — from the isolation of the virus’s genetic material, to running the RT-PCR machines, must be conducted in biosafety environments of varying degrees. So when CCMB’s experts began their training, they started with a day of theoretical lectures followed by hands-on-training the following day.

“On the first day, we gave theoretical lectures on the biosafety measures and the RT-PCR process, following the official two-step protocol given by the ICMR,” said Divya Gupta, a virologist at CCMB currently in the fourth year of her PhD. The ICMR, or Indian Council of Medical Research, is the nodal body for India’s response to the coronavirus.

The next day, Gupta said, everyone was kitted out in Personal Protective Equipment, or PPE, and taken to the labs.

“To avoid panic amongst the trainees, we got negative samples from the Gandhi Hospital,” Gupta said, referring to the Gandhi Medical College, Secunderabad. “Although not everyone was comfortable in wearing PPEs and working, this is a crucial step.”

Training people in just two days was hard, Gupta said, but the researchers tried to maximise the time spent in the lab.

“It was hectic,” said Annapoorna, a postgraduate student in CCMB, after the first day of training, on being asked how it went.

Once the training was complete, the institute had to prepare itself to handle medical samples containing the live virus. Testing for the novel coronavirus requires researchers to isolate the virus RNA — a delicate step that requires great caution. Preparation of the

reagents used for testing and running the machines requires coordination and planning. All of this must be done even as researchers follow the protocols of physical distancing.

The students now work in three shifts: morning, day, and night. The samples usually arrive in the afternoon. There is a demand to submit the results quickly, but the students have been extremely careful. All samples that are tested positive, go for a second round of confirmation test.

“I feel taken care of by CCMB,” said Gupta, the virologist. “Sometimes the deadlines are short. For example, yesterday we worked from 5 PM to 11 AM. Till now work has been going on smoothly. At least a 100 samples can be done per day.”

In the first two days of diagnostics, 39 and 80 samples had been tested respectively, and the number had increased to 120 on the third day. In the coming few days, the work may increase.

The demand for test results may sometimes take a toll on the researchers.

“I’ve been doing COVID-19 diagnostics for just 2 nights now, and I’m significantly stressed,” said Annapoorna. “I worked for over 12 hours only to find out we have more positive cases coming up. It’s unsettling. And then there’s news about doctors being abused, patients running away. It’s hard to see light at the end of the tunnel. But I guess we keep trying.”

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Harsh Vardhan asks scientists to hurry up: Deliver Covid-19 weapons before the war is over

Praising the work done so far by CSIR institutes to develop drugs and tech to fight Covid-19, Science & Technology Minister Harsh Vardhan urges them to accelerate research.

MOHANA BASU 13 April, 2020 7:30 am IST

New Delhi: Union Science & Technology Minister Harsh Vardhan has asked the Council of Scientific and Industrial Research (CSIR) labs and institutes to accelerate their research and development activities to fight the novel coronavirus pandemic.

At a video conference with the heads of different CSIR institutions Sunday, the minister, who also holds the health portfolio, reminded them that everything needs to be done keeping in mind the shortage of time.

“If you deliver weapons after the war is over, it may be too late,” Harsh Vardhan told the directors even as he lauded the [contributions of CSIR](#) so far.

Vardhan said all the facets of developing new technologies such as scientific validations, industry partnerships, and scaling up manufacturing, need to be adopted simultaneously in these unprecedented times.

During the meeting, the minister reviewed the steps undertaken by CSIR and its constituent 38 labs towards the mitigation of coronavirus outbreak in the country.

What the minister said

Harsh Vardhan also noted some of the encouraging developments at CSIR institutes across the country.

These include genetic sequencing of the novel coronavirus samples being carried out at Centre for Cellular & Molecular Biology (Hyderabad), rapid- and cheap paper-based diagnostic tests developed at Institute of Genomics and Integrative Biology (New Delhi), and the initiation of plasma-based therapy for coronavirus patients by Indian Institute of Chemical Biology (Kolkata).

Genetic sequencing will help track how the virus arrived in the country, and see if its virulence has changed over the past three months, the minister said. During the last leg of India's polio eradication movement, genetic sequencing played an important role in identifying how the virus was infecting certain communities, he said.

He also appreciated how many CSIR labs are helping the frontline health workers, police and other citizens by preparing and distributing safety items and devices in large quantities.

The minister added the country has high expectations from its scientific community and he is certain that they will rise up and deliver in this time of need.

During the meeting, CSIR director general Shekhar C. Mande said the body has set up a core strategy group with five verticals to carry out Covid-19 related activities – digital and molecular surveillance, rapid and economical diagnostics, new drugs/repurposing of drugs and associated production processes, hospital assistive devices and PPEs, and supply chain and logistics support systems.