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Ask the right questions, and nature will open the door to her secrets.

- Dr. C.V. Raman, The Nobel Prize in Physics 1930

Aarogya Setu App

Aarogya Setu is a mobile app developed by the Ministry of Electronics and IT to help citizens identify their risk of contracting COVID 19. It has gotten more than 75 million downloads till date.

CCMB-IGIB to control digital surveillance of COVID-19

Hyderabad-based Centre for Cellular and Molecular Biology (CCMB) and New Delhi-based Institute of Genetics and Integrated Biology (IGIB) are working for the digital and molecular surveillance of the spread of novel coronavirus to understand the biology, epidemiology and disease impact. The surveillance is to be done at three levels: the virus at the genome level; the patient data at the clinical samples; and, the clinical course of the patient, which leads to outcomes. This nation-wide operation is to be conducted in collaboration with National Centre for Disease Control (NCDC).

Government to test Ayurvedic herbs to combat COVID-19

Ministry of AYUSH, along with CSIR will conduct trials on three ayurvedic herbs – Ashwagandha, Guduchi, Mulethi and AYUSH-64 to test their preventive properties against COVID-19. Proposals from hospitals in Delhi, Mumbai and Lucknow are being made for starting the trials.

IICT ties up with private firm to produce COVID-19 drugs

Indian Institute of Chemical Technology (IICT) will work with Laxai Life Sciences to jointly develop and manufacture Active Pharmaceutical Ingredients (APIs). The collaboration will primarily focus on Umifenovir, Remdesivir and a key intermediate of Hydroxychloroquine.

ISRO invites offer for human space program

Directorate of Human Space Programme of ISRO has sought proposals for 18 tentative technology development areas. Proposals are being solicited to develop indigenous cutting-edge technologies for human survival in low earth-orbits and beyond for space exploration.

CSIR attempts repurposing of existing drug to fight novel coronavirus

The Council of Scientific and Industrial Research (CSIR) is repurposing existing drugs to treat gram-negative sepsis patients as well as COVID-19 patients. CSIR has started a clinical trial to examine the similarities in characteristics of patients suffering from COVID-19 and Gram-negative sepsis by evaluating the efficacy of the drug, known as Sepsivac, on the two categories of patient groups, in reducing mortality in critically ill COVID-19 patients. The Drugs Controller General of India (DCGI) has approved the trial and it will start soon at multiple hospitals. Extensive clinical trials have been conducted by Cadila Pharmaceuticals Ltd on preventing deaths against gram-negative Sepsis, with more than 50% reduction in deaths of critically ill patients.

IMTECH, IISER and PU jointly develop the hub and spoke model

The Department of biotechnology of the Government of India has identified institutes, including Punjab University (PU), the Indian Institute of Science Education and Research (IISER), Mohali, and Indian Institute of Medical Technology (IMTECH), Chandigarh to develop a 'hub and spoke model' for testing of samples for novel coronavirus. According to the testing model, IMTECH will deactivate the virus samples received in its containment Biosafety Level 2 (BSL-2) laboratory before these samples are transported to the spoke testing centres such as IISER and PU. Both PU and IISER are currently creating an inventory of equipment they have for testing to determine their capacity.

Health authorities develop tractor-mounted sanitizing device

Central Mechanical Engineering Research Institute (CMERI), Durgapur, has developed a tractor-mounted sanitizing system to carry out sanitisation work on roads to fight against novel coronavirus. The Road Sanitizer has a span of 16 feet, which uses 15 to 35 bars of pressure to ensure effective delivery of the sanitizer. Twelve nozzles are used to ensure optimum radial coverage of sanitizer. The system utilizes a 2000 to 5000 litres tank with a pump, which can spray about 22 litres of sanitizer per minute. In practical terms, one full tank of sanitizer can sanitize a stretch of road about 75 kilometres.

Special Update: CSIR-Indian Institute of Chemical Technology

The CSIR-Indian Institute of Chemical Technology (CSIR-IICT) situated in Hyderabad is one of the oldest National Laboratories under the Council of Scientific & Industrial Research (CSIR). It started as the Central Laboratories for Scientific & Industrial Research (CLSIR) by the then princely State of Hyderabad in 1944. CSIR-IICT during its seventy year journey has made its mark as a dynamic, innovative and result oriented R&D organization. The clientele spans all corners of the globe. In India it is the reliable destination of chemical and biotech industries. The reputation that CSIR-IICT could establish amongst the industrial clients as a reliable R&D partner, can be largely attributed to its rich pool of scientists with expertise in broad ranging research areas and simple and effective business development strategies.

Key Objectives of CSIR-IICT is to partner with the industry to develop cost efficient processes / technologies and materials, which are relevant to the industry; provide value added services, by way of Analytical and Consultancy services; support entrepreneurship in niche and upcoming areas by creating echo-system to support start-ups; incubations and spin-offs; generate revenues from above to keep pace with self-sustenance goal of CSIR; and, utilize public funds for enhancing the expertise in niche areas.

Further details can be found at: <https://www.iictindia.org/>