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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

SCTIMT develop swabs and VTM for COVID-19 testing

Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST), Thiruvananthpuram, an autonomous institute under the Department of Science and Technology (DST), has developed two types of nasal and oral swabs and viral transport medium for COVID-19 testing. Chitra EmBed flocked nylon swabs and Chitra EnMesh, polymeric foam-tipped, lint-free swabs with flexible plastic handlesChitra have both proven efficiency in the adequacy of specimen collection and rapid elution. Another innovation, Chitra Viral Transport Medium, is specifically designed to retain the virus in its active form during its transportation from the collection point to the laboratory. Technologies for both swabs and viral transport medium have been transferred to two industries for immediate manufacture and sales - Mallelil Industries, Origin diagnostics, and Levram Life Sciences. These two swabs developed with locally available material can reduce import dependency of the materials currently used and can meet the huge demand for them at much lower costs.

Electrostatic Disinfection Machine developed by CSIR

CSIR-Central Scientific Instruments Organisation (CSIR-CSIO) has designed an electrostatic disinfection machine based on electrostatic principle. The technology, which has been transferred to Rite Water Solutions Pvt. Ltd for large scale production and commercialization, produces uniform and fine spray droplets of disinfectants in the size range of 10-20 micrometre to kill microorganisms and viruses.

NIBMG shed light on the new mutated form of coronavirus

Scientists at the National Institute of Biomedical Genomics (NIBMG), Kalyani, West Bengal, have found that the novel coronavirus has undergone mutations to form 10 different types (clades). Of the 10, one specific type called A2a has become predominant and is fast replacing both the original type (called "O") from China and other mutated types in many countries. The mutation that gives rise to the A2a type is responsible for the virus binding to the cell receptor and entering the cells.

CSIR-IIP to set up viral testing facility to fight COVID-19

The Indian Institute of Petroleum (IIP) is establishing a Reverse transcription polymerase chain reaction (RT-PCR)-based Covid-19 testing facility in its Dehradun campus. Indian Institute of Petroleum (IIP) is a constituent laboratory of Council of Scientific and Industrial Research (CSIR). CSIR has planned a community testing strategy to keep track of new outbreaks and thus restrict them from spreading further. The Institute is receiving expert guidance from CSIR-Institute of Genomics and Integrative Biology (IGIB) (Delhi), CSIR-Institute of Microbial Technology (IMTECH) (Chandigarh) and CSIR-Centre for Cellular and Molecular Biology (CCMB) (Hyderabad) to fight against coronavirus.

Shiv Nadar University develops molecule to treat coronavirus

The Department of Chemistry, Shiv Nadar University, India, along with Institut Cochin (INSERM, CNRS, Université de Paris, France), have discovered a set of New Chemical Entities (NCEs) with the ability to treat Acute Respiratory Distress Syndrome (ARDS) or Acute Lung Injury (ALI) induced by COVID-19 (SARS-CoV-2). The two-fold strategy devised by the research team involved (a) application of the NCEs to inhibit attachment, (b) co-administration of a known drug (that modulates a set of hormonal receptors in human) and these NCEs to attenuate ARDS caused by SARS-CoV-2. The researchers have filed a provisional patent in India to protect the new chemical entities. The novel molecule in discovery is being moved to the next stage of checking where its efficacy will be tested on animals.

CSIR hopes to test Sepsivac's efficacy in fighting coronavirus

The Council of Scientific and Industrial Research (CSIR) is currently testing Cadila Pharmaceuticals' *repurposed* vaccine called 'Sepsivac' against Covid-19 in a Phase 2 trial and results are expected in next 30-45 days. The trial is being conducted on 50 patients at the All India Institute of Medical Sciences (AIIMS) New Delhi, AIIMS Bhopal, and Post Graduate Institute of Medical Education & Research (PGIMER), Chandigarh. The Phase 3 trials will be done on 1,100 people - 600 will be those who have tested positive but non- symptomatic, and 500 will be those who are out of hospital. If the Phase 2 trial shows that 'Sepsivac' is effective against Covid-19, a vaccine can be made in one-months' time for emergency use.

Special Update: Central Research Institute for Jute and Allied Fibres

The Jute Agricultural Research Institute (JARI) was taken over by Indian Council of Agricultural Research (ICAR) in 1966. In January 1990, the institute was renamed as Central Research Institute for Jute and Allied Fibres (CRIJAF). To carry out research work on allied fibres and seed, the institute established four research stations viz., Ramie Research Station at Sorbhog, Assam in 1959; Sisal Research Station at Bamra, Odisha in 1962; Sunhemp Research Station at Pratapgarh, Uttar Pradesh in 1963 and Central Seed Research Station for Jute & Allied Fibres at Budbud, West Bangal in 1956. Besides, the institute has nine (9) SAU based and six (6) ICAR institute based collaborating centres for multi-locational testing and revalidation of the technologies under All India Co-ordinated Research Projects on Jute & Allied Fibres (AICRP on JAF) now functioning as All India Network Projects on Jute and Allied Fibres (AINP on JAF). CRIJAF is the apex institute in the country to consider researches on JAF for developing production technologies to increase the productivity in a suitable manner.

Further details can be found at:
http://www.crijaf.org.in/home.asp