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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

IISER researchers detect asymptomatic COVID-19 cases

Researchers from the Indian Institute of Science Education and Research, Pune (IISER Pune), in collaboration with the BJ Medical College, have developed a fast and sensitive device that can help detect asymptomatic COVID-19 patients by accurately measuring their ability to smell using a custom-built olfactory-action meter. The device can assess the olfactory health status in less than 20 minutes

CMLRE study to help conserve Andaman and Nicobar ecology

Centre for Marine Living Resources and Ecology (CMLRE), Kochi is providing the first detailed information on the distribution of bottom-dwelling marine organisms in the ecosystem of the seafloor, known as benthic zone, which would help to develop a healthy ecosystem management strategy in the Andaman and Nicobar Islands area. The study found that the population of macrozoobenthos, around the island, decreased from the mesophotic reef areas (50 meter) to higher depths (200 meter), thus calling for a framework to sustainably manage and protect the island's ecosystem.

CSIR scientists cultivate Hing

Scientists from Centre for Scientific and Industrial Research -Institute of Himalayan Bioresource Technology (CSIR-IHBT) have planted Hing or asafoetida saplings in Himachal Pradesh. With government funds of INR 4 crore, IHBT has set up tissue culture lab that can quickly grow lakhs of saplings.

NIOT Scientists develop kit to detect strains of E.faecalis

Scientists at the National Institute of Ocean Technology, Chennai (NIOT) have developed a highly effective kit to detect the multi drug resistant (MDR) strains of the gram positive bacteria Enterococcus faecalis, which are a common cause of morbidity and motility across the world. The tool would help bring out policies and build legal framework to stop the pathogen dispersal from septic tanks in many Southeast Asian countries.

India International Science Festival

The sixth edition of the India International Science Festival (IISF) will take place virtually from December 22 to December 25, 2020 to promote science and technology and demonstrate how science could lead India towards a developed nation within a short period. The IISF is an annual festival to celebrate the achievements of India's scientific and technological advancements with students, innovators, craftsmen, farmers, scientists and technocrats from India and abroad. The launched online portal "CUREd: CSIR Ushered Repurposed Drugs" is meant to provide information on CSIR ushered repurposed drugs and their current stage of trials. The website also serves as a repository of information about the numerous clinical trials of diagnostics and devices that the Council of Scientific and Industrial Research (CSIR) is engaged with, in a partnership with Industry, other government departments and ministries. A key clinical trial of CSIR is the Sepsivac (Mw) against COVID -19 in partnership with Cadila. The phase 2 clinical trial has been completed successfully on critically ill COVID-19 patients, and more extensive Phase 3 trial is on the anvil. Further, the Phase 2 trial of phytopharmaceutical Aquilegia Chrysantha (AQCH) on COVID-19 patients is also underway.

Economical COVID-19 test 'COVIRAP' gets ICMR certification

The Indian Institute of Technology, Kharagpur (IIT-Kharagpur) has developed a diagnostic machine that gives as close results as ones produced by RT-PCR test. The diagnostic machine 'COVIRAP' has been successfully validated for its efficacy in COVID-19 detection by the Indian Council of Medical Research (ICMR). The machine is portable, low-cost, and user-friendly that can be used in the field, anywhere. The machine can determine the results of a given sample in less than an hour. It can be set up in the middle of a field and doesn't require an air-conditioned laboratory. Each testing kit contains three master mixes which can confirm the presence of the virus. The cost of the machine is around INR 5,000 and one test will cost between INR 500-600.

Special Update: Traditional Knowledge Digital Library, New Delhi

Traditional Knowledge Digital Library (TKDL) is a pioneering initiative of India to protect Indian traditional medicinal knowledge and prevent its misappropriation at International Patent Offices. Traditional Knowledge (TK) is a valuable yet vulnerable asset to indigenous and local communities who depend on TK for their livelihood. The healthcare needs of more than 70% population and livelihood of millions of people in India is dependent on traditional medicine. Globally too there has been renewed attention and interest in the use of traditional medicine increasing its vulnerability to exploitation. TKRC has structured and classified the Indian Traditional Medicine System into several thousand subgroups for Ayurveda, Unani, Siddha and Yoga. TKRC enabled incorporation of about 200 sub-groups under A61K 36/00 in International Patent Classification instead of few sub-groups earlier available on medicinal plants under A61K 35/00, thus enhancing the quality of search and examination of prior art with respect to patent applications field in the area of traditional knowledge. TKDL is proving to be an effective deterrent against bio-piracy and has been recognized internationally as a unique effort. TKDL has set a benchmark in TK protection around the world, particularly in TK-rich countries, by demonstrating the advantages of proactive action and the power of strong deterrence. The key here is preventing the grant of wrong patents by ensuring access to TK related prior art for patent examiners without restricting the use of traditional knowledge.

Further details at: <http://www.tkdil.res.in/tkdil/langdefault/common/Home.asp?GL=Eng>