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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

IITians develop biosensor to detect SDS

Researchers from Indian Institute of Technology (IIT), Roorkee have developed the world's first specific reliable bacterial biosensor to detect the presence of Sodium Dodecyl Sulphate (SDS) or Sodium Lauryl Sulphate (SLS), which is harmful to the environment and also causes substantial deterioration of water. The biosensor, gives a signal in the form of green fluorescent protein, when it directly and specifically detects SDS, even in minute amount.

Indian researchers develop diagnostics tool for TB

Team of researchers from several Indian Institutions have developed a new way of diagnosing Tuberculosis (TB) using aptamers, which are Deoxyribonucleic acid (DNA), Ribonucleic acid (RNA) or peptide like molecules. This method is increasingly being used due to its high affinity and specificity of binding themselves with a cytokine named Type I Interferon (IFN- α), that are secreted by specific cells of the immune system.

New genus of tree frog discovered in Northeast India

Scientists and researchers from the University of Delhi and the Zoological Survey of India have discovered a tree frog of the new genus Rohanixalus, which is the 20th recognised genus of the family and is found in the Andaman islands and the northeast part of India. This discovery highlights the importance of dedicated faunal surveys and explorations.

Indian Researchers study fluoride contamination

Team of researchers from IIT-Kharagpur, Bhabha Atomic Research Center (BARC), Mumbai and the Homi Bhabha National Institute, Mumbai conducted a joint study to determine the degree of fluoride contamination in deformed metamorphic and igneous rocks, by collecting and analyzing twenty-two water samples from tube wells and dug wells in the region.

PM Modi dedicates future-ready Ayurveda Institutions

Hon'ble Prime Minister of India, Shri Narendra Modi, dedicated to the nation dedicated to the nation Institute of Teaching and Research in Ayurveda (ITRA) at Jamnagar and National Institute of Ayurveda (NIA) at Jaipur on 5th Ayurveda Day, 13th November, 2020. These institutions are expected to play global leadership roles in the growth and development of Ayurveda in the 21st Century. Separately, the World Health Organisation (WHO) has announced that it will set up a Global Centre for Traditional Medicine in India.

CSIR partners with TataMD for diagnostic testing for COVID-19

Tata Medical and Diagnostics Ltd. (TataMD), the healthcare venture from Tata Group has announced the commercial launch of TataMD Check, a novel diagnostic testing for COVID-19. TataMD CHECK will use FNCAS9 Editor-Limited Uniform Detection Assay (FELUDA), a CRISPR Cas-9 technology that was developed in India by CSIR - Institute of Genomics and Integrative Biology (IGIB) for COVID testing. The process of collecting patient samples, RNA extraction, and amplification, etc. remains the same but uses simple, less expensive equipment and produces quicker results due to a more agile process and AI-based automated result detection. The test has been approved by the Indian Council of Medical Research and Drug Controller General of India (DCGI).

NIOT, NCCR and US experts develop ballast water discharge well

Scientists from National Institute of Ocean Technology (NIOT), Chennai & National Center for Coastal Research (NCCR), Chennai have developed an innovative water treatment technology with US Scientists, for a non-destructive process involving the construction of well or seabed gallery intake systems for the production of ballast seawater. One of the key features of this innovative water treatment technology is that it uses no chemicals. The eco-friendly ballast water treatment system meets the requirement of International Maritime Organization (IMO), to establish an effective and economical method to limit the risk of invasive species. Ballast waters typically contain a variety of biological materials that include bacteria, microbes, eggs, small invertebrates as well as cysts and larvae of various species, that undergo macroscopic or microscopic bio-invasion and when once released to the different parts of the world ocean system, they multiply and become invasive and pose serious human health issues.

Special Update: The Institute of Mathematical Sciences, Chennai

The Institute of Mathematical Sciences (IMSc), founded by Alladi Ramakrishnan in 1962, is an autonomous national institution for fundamental research in the areas of Theoretical Physics, Mathematics, Theoretical Computer Science and Computational Biology. Research at IMSc is supported by the Department of Atomic Energy, Government of India and by the Government of Tamil Nadu. The Institute has a vibrant academic program, including an active PhD program to which a select group of students are admitted every year. IMSc also supports a large number of scientists at the post-doctoral level and hosts a visiting scientist programme. The Institute organizes several national and international scientific meetings annually. IMSc is also involved in a range of outreach activities for schools, colleges and the general public.

Further details can be found at: <https://www.imsc.res.in/>