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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

Researchers in Hyderabad help boost hybrid rice production

In an effort to boost growing need for high quality hybrid rice seeds, team of Hyderabad-based researchers has developed a new method that is based on bulked-seed, where more than 200 rice seeds can be analysed at one go as opposed to the grow-out test or conventional DNA analysis, which are expensive and tedious. The method will be tested in other crops where molecular markers to differentiate between cytoplasmic male sterile (CMS) line and maintainer line are available, which are used as the female plant and bisexual flower bearers respectively.

NEERI develops treatment Plant

The Council of Scientific and Industrial Research- National Environmental Engineering Research Institute (CSIR-NEERI), Nagpur has developed a zero energy and zero operation and maintenance Phytorid Technology Sewage Treatment Plant (STP), for wastewater reuse, by using certain specific plants that can absorb nutrients directly from wastewater but do not require soil. This internationally patented technology by the institute is to be scaled in campuses across India.

IISc team working on rapid identification of COVID-19

Researchers at the Indian Institute of Science (IISc), Bengaluru are working on rapid identification of COVID-19 biomarkers in blood plasma using Raman spectroscopy and artificial intelligence to automate and increase the detection process. The samples collected from the non-destructive chemical analysis will be used for training and building robust classification models.

IISc scientists develop new device to gauge evaporation rate

A team of scientists from the Indian Institute of Science (IISc) has developed a new device from a filter paper connected to a capillary tube, which takes water from a reservoir to the filter paper to measure the rate of evaporation of 1 microlitre of water loss within a couple of minutes.

PM Modi's visit to Zydus Biotech, Bharat Biotech and Serum Institute

Hon'ble Prime Minister (PM) Shri Narendra Modi has visited the Zydus Biotech Park in Ahmedabad, Bharat Biotech in Hyderabad and Serum Institute of India in Pune. During the PM's visit to Zydus Biotech Park, the PM was made aware of the indigineous DNA based vaccine, named ZyCoV-D, being developed by Zydus Cadila, which has completed first phase of clinical trail of ZyCoV-D and has already begun the second phase of clinical trials in August 2020. During the PM's visit to Bharat Biotech facility in Hyderabad, the scientists are working on an indigenous Covid-19 vaccine, named COVAXIN and is collaborating with Indian Council of Medical Research (ICMR) to facilitate speedy progress. During the PM's visit to the Serum Institute, the PM was made aware of the Institute's collaboration with global pharma giant AstraZeneca and Oxford University for Covid-19 vaccine. Serum Institute of India (SII) and the GennovaBiopharmaceuticals are two of the seven firms, which have been granted permission by the Central Drug Standard Control Organisation for the manufacturing of COVID-19 vaccine for pre-clinical test, examination and analysis.

Infosys Science Foundation 2020

The Infosys Science Foundation (ISF) awarded the winners of the Infosys Prize 2020 for their outstanding contributions to science and research in a virtual awards ceremony. The prize consists of a pure gold medal, a citation and a purse of USD 100,000 and is awarded for stellar contributions in six fields: Engineering and Computer Science, Humanities, Life Sciences, Mathematical Sciences, Physical Sciences and Social Sciences. The laureates of the Infosys Prize 2020 are: 1. Prof. Hari Balakrishnan, in the field of Engineering and Computer Science, was awarded for his broad contributions to computer networking, and his seminal work on mobile and wireless systems; 2. Dr. Prachi Deshpande, in the field of Humanities, was awarded for her nuanced and sophisticated treatment of South Asian historiography.; 3. Dr. Rajan Sankaranarayan, in the field of Life Science, was awarded for the error-free translation of the genetic code to make protein molecules. 4. Prof. Sourav Chatterjee, in the field of Mathematical studies, was awarded for his work in probability and statistical physics.; 5. Prof. Arindam Ghosh, in the field of Physical Sciences, was awarded for his development of atomically thin two-dimensional semiconductors to build a new generation of functional electronic, thermoelectric and optoelectronic devices. 6. Prof. Raj Chetty, in the field of Social Sciences, was awarded for his research and extraordinary ability to discern patterns in large data that have the potential to induce major shifts in the discipline of Economics.

India's Venus Orbiter Mission

India's space agency Indian Space Research Organisation (ISRO) aims to launch its Venus orbiter Shukrayaan in late 2024. The mission's primary science objectives are to map Venus' surface and subsurface while studying the planet's atmospheric chemistry and interaction with the solar wind.

Special Update: National Institute of Hydrology (NIH)

National Institute of Hydrology (NIH) is a premier Research and Development organization under the Ministry of Water Resources, River Development and Ganga Rejuvenation, Government of India. It was established as an autonomous society in 1978 with its headquarters at Roorkee. The main objectives of NIH are to undertake, aid, promote and coordinate systematic and scientific work in all aspects of hydrology.

Further details can be found at:
http://nihroorkee.gov.in/