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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

Scientists at NIV-Pune isolate 11 strains of COVID-19

Scientists at the National Institute of Virology (NIV), Pune have isolated 11 strains of the COVID-19, making India the fifth country to successfully isolate the virus strain. This step marks the prerequisite for conducting research to develop vaccine for COVID-19.

NCCS-Pune Scientists find way to speed up RBC generation

Researchers at the Department of Biotechnology's National Center for Cell Science (NCCS) Pune have found a way to shorten the time period to grow red blood cells (RBCs) in labs from haematopoietic stem cells. By adding a very small protein molecule called erythropoietin, the process time can be cut down to three days.

CSIR to conduct field trials of pest-proof cotton

A new pest-resistant cotton variety developed by a Lucknow-based research laboratory is ready for field trials. The research is being carried out in collaboration with Indian Council for Agricultural Research (ICAR).

CCMB-AIIMS study shows Yoga improves Sperm motility

Study from the Centre for Cellular and Molecular Biology (CCMB), Hyderabad, and All India Institute Of Medical Sciences (AIIMS), New Delhi has shown the positive effect of Yoga on sperm quality. Using state-of-the-art DNA sequencing analysis, the study showed a resetting of the sperm methylome in yoga practitioners.

Research in tongue cancer

Team of scientists at the Hyderabad-based Center for DNA Fingerprinting and Diagnostics have identified the most prominent gene in tongue cancer patients. The gene is called SMARCD1 and is found in the easily mutable protein carrying cell called p53.

CSIR lab working on COVID-19

The Hyderabad-based Indian Institute of Chemical Technology (IICT), one of the CSIR labs, has started work on synthesising chemical formulations for the manufacture of a drug for the deadly COVID-19. The scientists at the CSIR lab have taken up the challenge of developing the molecules towards discovering the drug.

India increases its renewable electricity generation

According to the research done by Ember, a London-based, independent climate think-tank, India achieved a 13 percent growth in wind and solar electricity in 2019. New solar capacity hit a new record at 12 GW; solar energy provided 3.4% of all electricity in 2019. India opened the world's largest solar farm in 2019. Solar capacity installed in India increased by 36% in 2019. India also had a 3 percent decrease in coal-based power in 2019; as a result, power sector CO2 emissions also fell by 3%. The carbon intensity of India's electricity generation fell by 4% in 2019. A record monsoon season led to a 14% growth in hydrogeneration which helped reduce coal. Wind Energy generation increased by 5 per cent.

IIT-Madras led three day conference on Rural technology

Indian Institute of Technology Madras is joining hands with the Rural Technology Action Groups (RuTAG) of six other IITs to organise a three-day International Conference on 'Rural Technology Development and Delivery' with the objective of attracting more mainstream research in rural technologies. RuTAG is an initiative conceptualised and supported by the Office of the Principal Scientific Adviser to the Government of India as a mechanism to provide a high demand-driven Science and Technology interventions for rural areas through IITs and other technical institutions. RuTAG centres have been established at seven IITs (Madras, Guwahati, Kharagpur, Delhi, Roorkee, Bombay, and Kanpur).

Special Update: Indian Science Technology and Engineering facilities Map (I-STEM) portal

Hon'ble Prime Minister Shri Narendra Modi launched the Indian Science Technology and Engineering facilities Map (I-STEM) portal at the 107th edition of the India Science Congress on 3rd January 2020 at Bengaluru. Initiated by the Office of the Principal Scientific Adviser (PSA) to the Government of India (GoI) as an important national program to build a unique 'One Nation One Research Web Portal' for scientific community, I-STEM, will hold the database of all the R&D facilities established in institutions around the country, and enable their sharing in a transparent manner. The IP protected Portal has been built by, and is managed by, Nanoscience Centre of Indian Institute of Science, Bengaluru. Not just public and private academic institutions, but industry will also be able to share their R&D lab equipment as well as scientific products/equipment accessories. More than 17000 equipment located at about 427 institutions across India (including those of Council of Scientific & Industrial Research (CSIR), Department of Science and Technology (DST) & Department of Biotechnology (DBT)) have been listed on I-STEM.

Further details can be found at: <https://www.istem.gov.in/>