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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

Therapeutics for tongue cancer

A team of researchers from IIT Madras, Sree Balaji Dental College and Hospital, Chennai and Indian Institute of Science (IISc) Bengaluru have identified a specific microRNA called miR-155, that is overexpressed in tongue cancer cells and tongue tumour tissues. By restoring the functions of certain proteins, like 'programmed cell death 4' or pdcd4, through molecular manipulation, the research team has shown that miR-155 levels can be manipulated and thus lead to potential therapeutic developments for cancer, especially tongue cancer.

Saffron and Heeng (Asafoetida) to be cultivated in large-scale

The Institute of Himalayan Bioresource Technology (CSIR-IHBT) and the Department of Agriculture, Government of Himachal Pradesh have forged strategic partnership to increase production of Saffron and Heeng (Asafoetida) in Himachal Pradesh. A state-of-the-art tissue-culture lab will be established for large-scale production of quality planting material of these crops.

CIMAP announces photography competition on medicinal plants

In an effort to create awareness about the usefulness of herbal plants, the Central Institute of Medicinal and Aromatic plants (CIMAP) has announced a photography competition on medicinal and aromatic plants, in order to convey a message of conservation of said plants. The photograph should have correct Latin and vernacular name of the plant and its medicinal and aromatic importance.

New drug molecules for amoebiasis

Researchers from Jawaharlal Nehru University (JLU) have developed new drug molecule against the protozoa, known as Entamoeba histolytica, that causes amoebiasis. The researchers have identified and inhibited the pathway of the molecule called Cysteine, which is synthesized by the Protozoa as a defence mechanism and the 2 crucial enzymes produced by the pathogen for synthesising cysteine.

CSIR launches ArogyaPath to strengthen healthcare supply chain

Council of Scientific and Industrial Research (CSIR) has launched AarogyaPath, a web-based solution for the healthcare supply chain, which provides real-time availability of critical supplies to manufacturers, suppliers and customers through a web portal. This platform provides a single-point source for key healthcare goods, which could help customers in tackling a number of routinely experienced issues. The issues include dependence on limited suppliers, time-consuming processes to identify good quality products, limited access to suppliers who can supply standardized products at reasonable prices within desired timelines, lack of awareness about the latest product launches, etc.

Air sanitiser from NIIST to disinfect aerosols

The National Institute for Interdisciplinary Science and Technology (CSIR-NIIST) has developed a low-cost air sanitiser which could prove ideal for enclosed public spaces, such as hospitals. The system 'disinfects' aerosols, the fine particles suspended in air. It exposes them to a combination of antimicrobial filters and germicidal UVC radiation and releases clean air. Many infectious diseases of bacterial, fungal and viral origin are transmitted through aerosols, which are minute (micron size) respiratory droplets that reach air when people cough, sneeze or even talk. It was reported that aerosolised COVID-19 could move around a radius of 13 feet from an infected person.

Researchers develop anti-microbial multi-layer face mask

A team of researchers at the School of Biomedical Engineering, Indian Institute of Technology (IIT-BHU), has developed an anti-microbial five-layered face mask. This face mask can annihilate pathogenic microorganisms that are stuck to its outer surface and thereby limit the spread of secondary infections. The mask that is available in the market currently acts as a filter to stop the entry of microbes to oral and nasal airways but does not have any effect on the microbe stuck to the mask surface. The mask has hydrophobic surface on the outer layer to deflect water droplets containing the viruses.

Special Update: National Institute for Interdisciplinary Science and Technology (NIIST), Thiruvananthapuram

The National Institute for Interdisciplinary Science and Technology (NIIST), Thiruvananthapuram, is a constituent Laboratory of the Council of Scientific and Industrial Research(CSIR). Initially established in 1975 as a CSIR Complex, it was named as the Regional Research Laboratory in 1978 and later renamed as NIIST in 2007. Its mandate is to conduct research and development activities of the highest quality in areas related to effective utilization of resources of the region and of fundamental importance to the country.

Currently, NIIST is engaged in R & D programmes in areas related to Agro-processing and technology, Chemical Sciences and technology, Materials Science and Technology, Microbial processes & technology, Environmental Technology. The institute has established state-of-the-art facilities for conducting advanced research in the areas of interest. Pilot plant facilities for research training and process/product development in the areas of spices and oilseeds have been established. The institute has also been playing a significant role in Human Resource Development by training post graduate/graduate students, with over 252 Ph.D degrees awarded till date, based on research conducted in the institute.

Further details can be found at: https://www.niist.res.in/english/