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### INDIA SCIENCE AND INNOVATION WEEKLY

Ask the right questions, and nature will open the door to her secrets.
- Dr. C.V. Raman, The Nobel Prize in Physics 1930

# Researchers develop pancreatic cancer drug

Researchers from Indian Institute of Integrative Medicine (IIIM), Jammu have identified a compound, from the leaves of Dysoxylum Binectariferum, which has shown cancer-inhibiting activity in the primary studies on pancreatic cancer. For this compund, IIIM has received Investigational New Drug (IND) approval from the New Drugs Division of the Central Drugs Standard Control Organization (CDSCO).

## CSIR Lab to provide summer research training programme

The North East Institute of Science and Technology (CSIR-NEIST) is working on an online program (CSIR-SRTP-2020) to be discharged through the faculties and mentors from 38 CSIR laboratories spread across the length and breadth of India. About 400 eminent scientists from CSIR laboratories will be engaged in this novel endeavour to deliver online lectures on various subjects such as chemistry, geoscience, mathematics, pharmacy, data sciences, artificial intelligence and medicine.

## Dengue drug enters Phase II clinical trial for COVID-19

Sun Pharma has commenced Phase II clinical ACQH, trial on phytopharmaceutical (plant-derived) drug for treatment of COVID-19, which has shown anti-SARS-CoV-2 effects in-vitro studies conducted in collaboration with International Centre for Genetic Engineering and Biotechnology (ICGEB), Italy. The results of the clinical trial are expected by October.

# Scientists develop indigenous NP swabs

Team of scientists from CSIR-National Chemical Laboratory (NCL) has developed an indigenous nasopharyngeal (NP) swab for collecting samples from throa of COVID-19 patients. The NCL has transferred the process knowhow of indigenous NP swabs for sample collection to a Mumbai-based chemical company under the COVID-19 technology transfer guidelines of CSIR.

### Clade A3i; India's most dominant coronavirus cluster

Scientists at the Centre for Cellular and Molecular Biology (CCMB), Hyderabad have identified a distinct trait in the coronavirus found in the people infected in the country, mostly in the southern states of Tamil Nadu and Telangana. They have named this unique cluster of virus population as 'Clade A3i' found in 41 per cent of the genome sequenced in India. The researchers sequenced 64 genomes. This cluster seems to have originated from an outbreak in February 2020, and spread through India. This comprises 41 per cent of all SARS-CoV2 genomes from Indian samples, and 3.5 of global genomes submitted into public domain.

### NCRA scientists shed light on Sun's coronal heating problem

A group of scientists working at the Pune-based National Centre for Radio Astrophysics (NCRA) has discovered tiny flashes of radio light emanating from all over the Sun, which they say could help in explaining the long-pending coronal heating problem. Using meterwave data from the Murchison Widefield Array, the first successful detection of impulsive emissions was made, showing evidence of magnetic explosions or 'nanoflares'. These emissions can indeed be heating up the corona (the aura of plasma that surrounds the sun and the other stars).

### WHO resumes hydroxychloroquine and chloroquine trials

World Health Organisation (WHO) decided to resume hydroxychloroquine and chloroquine (HCQ/CQ) trails after Indian scientists questioned its earlier decision to halt it temporarily. WHO had stopped the trails based on a study published in the journal Lancet. The scientists have stated in a letter that the Lancet article represents an observational study. Unlike randomized blinded trails where subjects are chosen randomly to receive a treatment to minimize differences between treatment groups, this study does not have any such prior design.

#### **Special Update: National Dairy Research Institute**

The National Dairy Research Institute, Karnal, as country's premier Dairy Research institution, has developed considerable expertise over the last five decades in different areas of Dairy Production, Processing, Management and Human Resource Development. Information generated at the Institute and the services offered have contributed to the growth of Dairy Industry as a whole and well-being of millions of milk producers and consumers of milk and milk products. Realizing the challenging need of global Dairy Trade, the Institute is continuously working to develop its R&D and HRD programmes to better serve the nation in terms of food security, employment generation, poverty alleviation and economic prosperity.

The National Dairy Research Institute as the premier Dairy Research Institution undertakes research, teaching and extension activities towards dairy development in the country. Being the National Institute, it conducts basic and applied research with the objective to enhance animal productivity and also to develop cost effective technologies for the benefit of the teeming millions. Further, the Institute provides high quality manpower to meet the human resource requirements for the overall dairy development in the country. The Institute also undertakes extension programmes for transferring the know-how from the laboratory to the farmers' fields.

Further details can be found at: http://www.ndri.res.in/ndri/Design/index.html