

CSIR IN MEDIA



CSIR

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Cooperation between the Institut National de la Propriété Industrielle, France and the Council of Scientific and Industrial Research (CSIR) on Access to the Traditional Knowledge Digital Library (TKDL), a prior art database of Indian traditional knowledge

CSIR-TKDL

16th September, 2022

The Institut National de la Propriété Industrielle (INPI; the National Industrial Property Institute), France and the Council of Scientific and Industrial Research (CSIR) entered into a cooperation on the Traditional Knowledge Digital Library (TKDL) Access through an Agreement in the gracious presence of Dr. N. Kalaiselvi, DG, CSIR and Secretary, DSIR. The Agreement was



exchanged by Mr. Sebastien Connan, Regional IP Counselor for India and Dr. Viswajanani J Sattigeri, Scientist-H and Head, CSIR-TKDL Unit. Through this Agreement, the INPI, France gains access to the complete TKDL database towards examining prior art related to Indian traditional knowledge for the purposes of patent grant procedure.

Speaking on the occasion, DG, CSIR welcomed the collaboration with France in the area of traditional knowledge. She encouraged concerted efforts for upcoming health care challenges. Mr. Connan while thanking India for the cooperation stated that the TKDL database would be an important instrument not only for the INPI but also for the traditional industrial entities in France. He stated that France also looks forward to strengthening ties with the CSIR for scientific pursuits in traditional areas. The signing of the TKDL Access Agreement with the INPI, France marks the beginning of a new partnership and mutual cooperation in the domains of Intellectual Property Rights as well as traditional knowledge between France and India.

About TKDL:

The TKDL database, first of its kind worldwide, was established in 2001 by the Government

of India, through a collaboration between CSIR and Ministry of AYUSH. The key objective of the TKDL is to prevent the erroneous grant of patents on Indian traditional knowledge (TK) and deter misappropriation of the country's traditional knowledge. Currently, the TKDL contains information on over 4.2 lakh formulations and techniques of Indian Systems of Medicine such as Ayurveda, Unani, Siddha, and Sowa Rigpa as well as Yoga from the traditional texts. The TK information from diverse languages and subject areas are transcribed into value-added information correlated with modern terminologies.

The TKDL information is presented in a digitized format in five international languages including English, German, French, Japanese and Spanish, and format easily understandable by patent examiners. As per the extant approvals in place, the TKDL database is available only to patent offices through TKDL Access Agreements. With this cooperation with Danish Patent and Trademark Office, the number of patent offices worldwide that have access to the TKDL database rises to fifteen.

The TKDL is a global benchmark in the defensive protection of traditional knowledge and has been successful in protecting India's interest against any possible misuse of its heritage. The impact has been significant, with over 265 patent applications world-over being revoked, amended, withdrawn or abandoned, based on the prior art evidences presented from the TKDL database.

CSIR's Popular Science Magazine 'Vigyan Pragati' receives 'Rajbhasha Kirti Award'

CSIR-NIScPR

17th September, 2022

CSIR's popular science magazine, "Vigyan Pragati" has created a new history. This magazine has received the National Rajbhasha Kirti Award (First position) and this award was given at the Second All India Rajbhasha Sammelan held during 14-15 September 2022 in the Pandit Deen Dayal Upadhyay Indoor Stadium, Surat. Department of Official Language, Ministry of Home Affairs, Govt. of India organized this grand event which was witnessed by around 9000 audiences.



In the Surat Rajbhasha Sammelan, Director of CSIR-National Institute of Science Communication and Policy Research (CSIR-NIScPR), Prof. Ranjana Aggarwal received this prestigious Kirti Award in the presence of Union Minister for Home Affairs Shri Amit Shah. Hon'ble Chief Minister of Gujarat State, Shri Bhupendrabhai Patel, and Hon'ble Ministers of State, Ministry of Home Affairs, Shri Ajay Kumar Mishra and Shri Nisith Pramanik graced the programme.

'Vigyan Pragati' (a popular science magazine in Hindi) is one of India's best popular science magazines. It is popular among children, teachers, researchers, and the public across India as well as the world. Council of Scientific & Industrial Research (CSIR) started publishing this magazine in 1952. It carries a legacy of seven decades and over these many years, the readers of this magazine have been motivated by its content. This monthly Hindi publication imparts knowledge of the recent national-international S&T related developments, discoveries, inventions, and technological advancements in the form of articles, features, science fiction, science poetry, quiz, scientoon (science cartoons), and docudrama.

Vigyan Pragati aims to communicate S&T to the masses in simple language. The magazine's contents aim at igniting curiosity about science among the young and strive to develop an interest in them to pursue science. Those engaged in preparation for various competitive examinations; use this magazine as an authentic source of information on science and technology.

Article 51 A [h] of the Indian Constitution put emphasis and says that it is every citizen's fundamental duty to develop a scientific temper, spirit of enquiry, humanism, and reform. Science magazines play a vital role in communicating S&T to the common man and thereby developing scientific temper.

On this great occasion, Prof. Ranjana Aggarwal, Director, CSIR-National Institute of Science Communication and Policy Research said that Rajbhasha National Kirti Award to 'Vigyan Pragati' is the honour of CSIR as well as all its readers, writers, and editors.



The magazine's contents aim at igniting curiosity about science among the young

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lbgnews

Jawahar Navodaya Vidyalaya students get exposures of Research Environment at CSIR-NML Jamshedpur

CSIR-NML

20th September, 2022



Jamshedpur, Sep 20: Thirty students of from Jawahar Navodaya Vidyalaya (JNV), West Singhbhum accompanied by four teachers visited CSIR-National Metallurgical Laboratory, Jamshedpur and interacted with scientists and research scholars on Tuesday. The visit was part of the “Gigyasa programme”. The objective of the programme is to provide exposures of research environment and motivate students to pursue career in science.

The students were thrilled to visit the laboratory and interact with working group. The aim of organizing this visit was to exchange information and encourage participation of students in developing innovative scientific contents on virtual platform.

A detailed plan was made to make the visit enjoyable and interactive for the students and teachers.

Dr PN Mishra, Senior Principal Scientist and Dr Animesh Jana, Senior Scientist from KRIT Division of CSIR-NML and SN Hembram, Pr. Technical Officer were present during the inaugural programme along with other team members. Dr Mishra briefly introduced CSIR-NML to the participants and talked about what the study of metallurgy is all about.

Dr Aniket Dutt from KRIT Division team gave a short presentation on CSIR-Jigyasa portal. The team helped the students and teachers who showed interest to subscribe to the YouTube channel of Jigyasa programme.

The day-long program included visit to the research laboratories, workshops and KRIT Division and visiting the CSIR-NML museum and library. The participants were very happy with the overall experience.

How is the Lumpy skin disease spread this year different from 2019 ?

CSIR-IGIB

20th September, 2022

Concerns have been raised about whether the new vaccine being developed to protect cattle will provide adequate protection in light of the lumpy skin disease (LSD) virus's potential structural difference from the version of the virus prevalent in India in 2019. LSD has killed at least 50,000 cattle in India this year, and the virus may have changed from that version in 2019.



Researchers from the State Disease Diagnostic Centre in Jaipur and the Council of Scientific and Industrial Research-Institute of Genomics and Integrative Biology (CSIR-IGIB) examined and compared the virus genomes of five sick animals.

When genetic sequences from previous outbreaks of the disease were compared to those from six genomes (many genomes from a single animal), it was discovered that the organism had "little similarity to global genomes." Four genome sequences from the 2019 outbreak of the disease that were deposited in GenBank, did not contain any of the 177 unique mutations discovered by the genome study.

This is noteworthy because Lumpi-ProVacInd, a vaccine created by the Indian Veterinary Research Institute and the Indian Council of Agricultural Research's (ICAR) National Research Centre on Equines, is based on samples of the LSD virus taken from cattle that were impacted by the Ranchi outbreak in 2019 that resulted in the outbreak. In contrast, experimental trials on animals infected with the vaccine during the ongoing 2022 outbreak, according to the ICAR and the Ministry of Agriculture, have produced favourable results.

When administered to animals, the vaccine is a live, attenuated, or weakened strain of the virus that is anticipated to boost the immune system and provide defence against a potential infection. The only vaccines for the illness at the moment are those for sheep pox and goat pox, which are linked to the LSD virus.

What the ramifications of this genome sequencing study signify for the vaccination is the "million-dollar question," according to Sridhar Sivasubbu of the CSIR-IGIB and one of the researchers involved in the genome sequencing study.

He claimed that this particular study was inconclusive because there weren't enough animals used to test them, and that the question of whether the variants found and examined in Rajasthan for the study's purposes were common throughout India required a larger sample of viral genomes from several States.

One of the animals looked to have two separate LSD viral variants when the virus was taken from its nose as well as from its skin, showing that the virus appeared to be able to develop inside a single host, which is another issue that the IGIB study raises. This demonstrates once more the LSD virus's greater infectiousness in 2022 compared to 2019.

Lumpy skin disease is a contagious viral disease that spreads among cattle through direct contact with mosquitoes, flies, lice, and wasps, as well as contaminated food and water. The disease causes fever and skin nodules and can be fatal.

Pradhan launches SCALE app for skill development in leather industry

CSIR-CLRI

20th September, 2022

New Delhi: Union Minister of Education and Skill Development Dharmendra Pradhan launched the SCALE (Skill Certification Assessment for Leather Employees) app which provides a one-stop solution for skilling, learning, assessment, and employment needs of the leather industry, during a visit to CSIR-Central Leather Research Institute, Chennai.



According to the statement by the Ministry of Skill Development and Entrepreneurship, the Leather Skill Sector Council has developed an Android App SCALE to change the way skill development programmes are designed and delivered to trainees in leather industry.

The SCALE studio App developed by Leather SSC allows people from all age groups interested in leather craft to access online live streamed classes from the state-of-the-art studio at its office.

Speaking on the occasion, Pradhan said the leather industry plays a major role in generating large-scale employment in the country with over 44 lakh people currently working in this industry. He lauded the role of CSIR-CLRI for playing an important role in the development of this sector with a perfect blend of academics and skill development.

The minister also spoke about changes happening in the sector due to advent of digital technologies and environment friendly techniques, and said that this calls for a renewed impetus on skilling, re-skilling and up-skilling and drive capacity building.

He said that NSDC and CSIR-CLRI will work together to address the skilling needs of this sector and suggested a national level capacity building programme be held at CSIR-CLRI for augmenting the capacities of professionals working in this industry.

He also said that the Ministry of Skill Development and Entrepreneurship, NSDC, CLRI and Leather Sector Skill Council will collaborate to set up Common Facility and Skilling Centre across India, including Chennai.

Pradhan called upon young professionals in this industry to leverage technology, innovation, entrepreneurship to become job-creators. "They must handhold craftsmen to connect them to opportunities available in the digital space including e-commerce," he added.

Stakeholder Consultation Workshop on Pashmina Held at KU

CSIR-CCMB

20th September, 2022

Stakeholder Consultation Workshop on Pashmina was held at the University of Kashmir on Monday. The day-long workshop titled 'Developing Technologies for Diagnosing Impurities in Fibre Used in Pashmina Shawl Weaving Industry' was organised by the varsity's Centre of Research for Development (CORD) in collaboration with CSIR-Centre for Cellular and Molecular Biology (CCMB), one of the country's premier research organisations working under the Union Ministry of Science and Technology.



In his introductory remarks, Dr Karthikeyan Vasudevan, Chief Scientist CSIR-CCMB, said the current workshop is part of a priority project for CSIR that aims to engage with the region of Jammu and Kashmir on different issues that confront its biodiversity conservation, an important aspect of which is the Pashmina Shawl Weaving.

“We have invited all major stakeholders including people from the Industry, scientific community, lawyers, association of Pashmina weavers, forensic science experts, and officials from J&K's Handloom Department to deliberate on how we can facilitate this product (Pashmina) and its artisans to gain global recognition,” Dr Vasudevan said, adding that “we also intend to explore what we can do at CSIR to help the Industry to certify its product which remains free of any contamination”. Prof Niamat Ali, Director CORD said the Centre is a UGC-approved institute having thrust on ecology and wildlife of Kashmir region. "It has been a partner and beneficiary in CSIR-CCMB's National Mission for Himalayan Studies ongoing project on improving capacity and strengthening wildlife conservation for sustainable

livelihoods in Kashmir Himalaya," he said. Mr Mehmood Ahmad Shah, Director Handicrafts J&K, called for a fine balance between survival of the Pashmina goat and survival of the craft and livelihoods of craftsmen, underlining that it would be a "great loss" if we "lose these skill sets".

"We need to look at this issue from the prism of livelihoods because we have nearly 50,000 weavers engaged in weaving different fibre-based products, including Pashmina, in the unorganised Handicrafts sector that supplements income generations at the community level," he said.

Shah called for "tripartite arrangement" between J&K CDI lab, which undertakes GI tagging of Pashmina, SKUAST-K and Wildlife Department to help get shawls tested locally for any kind of contamination so that both weavers and exporters do not face any hassles.

Several top-notch scientists including Dr Mahendra Darokar from CSIR also spoke on the occasion. Dr Darokar said CSIR has started another project on improving the existing fodder plants for Pashmina goats in association with the UTs of J&K and Ladakh.

Microbiologists Conference from September 21 in Mysuru

CSIR-CFTRI

20th September, 2022

The 62nd annual three-day International Conference of Association of Microbiologists of India on “Microbes and Society: Current trends and Future Prospects (MSCTPF-2022)” will be held at Senate Bhavan in Manasagangotri on Wednesday at 9:30 am.

University of Mysore in association with the CSIR-CFTRI, DRDO-DFRL, and the JSS AHER have jointly organised the conference which will be inaugurated by Dr. C.N. Manjunath, Director, Sri Jayadeva Institute of Cardiovascular Sciences and Research, Bengaluru.

Vice-chancellor G. Hemantha Kumar will preside. Prof. S. Ayyappan, Chairman, KSTA, Government of Karnataka, Bengaluru, former vice-chancellor Prof. K.S. Rangappa and DRDO-DFRL Director Anil Dutt Semwal will be the guests of honour.

The valedictory of the conference will be held on September 23 at Vijnana Bhavan in Manasagangotri at 1 p.m. and Dr. Sridevi Annapurna Singh, Director, CSIR-CFTRI will be the chief guest.

Published in:

[The Hindu](#)

सीएसआईआर-सीएसएमसीआरआई के शोध छात्रों का स्कूल विद्यार्थियों के साथ संवाद

भावनगर। सीएसआईआर-केन्द्रीय संवाद किया। जिज्ञासा कार्यक्रम वैज्ञानिक प्रवृत्ति का विकास करना है। नमक व समुद्री रसायन अनुसंधान का उद्देश्य स्कूली छात्रों के लिए शोध छात्रों ने विद्यार्थियों व शिक्षकों को संस्थान द्वारा किये गए विभिन्न अनुसंधानों के बारे में संक्षिप्त जानकारी दी तथा आम-जनता हेतु उसके लाभों के विषय वाले आजादी का अमृत महोत्सव के अंतर्गत भावनगर स्थित अगस्त-सितंबर माह के दौरान विभिन्न विद्यालयों का भ्रमण किया और विद्यार्थियों के साथ सुनियोजित अनुसंधान प्रयोगशाला आधारित शिक्षा पर ध्यान केंद्रित करके कक्षा में सीखने का विस्तार करना और विद्यार्थियों में विज्ञान में रुचि में बताया। स्कूल के विद्यार्थियों से सीएसएमसीआरआई संस्थान में आकर संस्थान की अनुसंधान गतिविधियों को देखने की इच्छा जतायी।



Skill Development Programmes At CFTRI On Sept. 20 And 30

CSIR-CFTRI

19th September, 2022

Mysore/Mysuru: CSIR-Central Food Technological Research Institute (CFTRI) is organising two Skill Development Programmes in Spice Processing on Sept. 20 (Tuesday) and Post-Harvest Technologies for Horticultural Crops on Sept. 30 (Friday) under CSIR Integrated Skill Initiative for the benefit of budding entrepreneurs / micro-entrepreneurs / startups, SHGs and entrepreneurial aspirants



with very nominal registration fee. The workshop on Spice Processing will be conducted in a hybrid mode, that is both offline and online mode. 30 participants can visit the Institute for offline participation on first come first serve basis. The programme will cover in detail about the current status and opportunities in spice processing, spice nutraceuticals and trends towards their value addition, analytical methods in spice processing, encapsulation of flavours and colorants, fumigation and infestation control for safe storage of spices, food safety standards and regulation in spice processing etc.

The key topics in the one-day workshop on “Post-Harvest Technologies for Horticultural Crops” covers role of pack-house in post-harvest handling of horticultural products, technologies for estimation of shelf life and pack house operations of fruits and vegetables, packaging requirements for fresh fruits and vegetables, equipments for fruits and vegetables processing, dehydration and canning of fruits and vegetables, fruit juices and beverage manufacture, cold storage for fruit and vegetable products. Those interested to attend these workshops may go through details available online at <https://www.cftri.res.in/sdp>

Published in:

[Star Of Mysore](#)

Variation in fish sound linked to temperature change in water: NIO study

CSIR-NIO

18th September, 2022

While the impact of temperature change on land is easily ascertained by various indicators like behavioural pattern of living beings, very little is known about the same when it comes to the situation underwater. Now, a study by National Institute of Oceanography (NIO) Goa, has found that variation in fish sound is directly linked to temperature change happening underwater.

The team of scientists at NIO led by CSIR-Emeritus Scientist The underwater sound intensity and dominant frequency caused by fish calls fluctuates as water temperatures change, and the pulse repetition rate decreased when the water temperature increases conducted study of passive sound waves generated by marine species underwater in three shallow water sites in Goa - Off Britona in Mandovi estuary, In Grande Island in Zuari estuary, off Mormugao Port and Sal River off Betul.

The findings have been published in the Journal of the Acoustical Society of America. The study is titled Characterizing three shallow-water locations off Goa, India, using passive acoustic data.

“We had few notable observations in our analyses. Off Britona in Mandovi estuary, correlation coefficient of 88-67% is observed between the Sound Pressure Level (SPL) of Toadfish sound with respect to the temperature. In Grande Island in Zuari estuary, maximum correlation coefficient of 80% is observed between the SPL of Tiger Perch, whereas in Sal River off Betul, correlation coefficient of 84% is observed between the SPL of background sounds with respect to the wind speed,” said Bishwajit Chakraborty, Scientist Emeritus at NIO and an authority on marine or hydro-acoustics. This means that underwater sound intensity and dominant frequency caused by fish calls increases as water temperatures rises, and the pulse repetition rate decreases when the water temperature increases.

“When wind becomes dominant, SPL is related to wind. SPL consists of fish sound as well as geophony from wind. That time fish sound SPL becomes insignificant compared to wind. Therefore, relationship shows SPL versus wind dominant,” the senior scientist said.

“The study results suggested that passive acoustics is a vital tool for understanding the biological components in relation to the environmental conditions,” added Chakraborty, who is the lead author of the study.

Underwater acoustics is the science of sound waves in the water that has become an essential tool for underwater remote sensing.

“We have also analysed data of Seahorse feeding click non-linearity using the Artificial Intelligence method, which was published in Journal of Acoustical Society America (American Institute of Physics). Further, we discovered the Humpback whale (*Megaptera novaeangliae*) sound from Grande Island and published it in the Bioacoustics journal,” Dr Chakraborty said. By analysing passive acoustic recordings, it is possible to discriminate and identify different animal species and to calculate the relative number of animals present within the measurement range.

Currently CSIR-NIO is busy in acquisition and analyses of passive acoustic data along with the other ancillary systems to carry out multi-parameter studies.

“However, long term passive acoustic data acquisition is needed to relate among fish sound and climate,” he said.

As Purple Revolution Blooms, Kashmiri Farmers Are Picking Lavender Cultivation

CSIR-IIIM

18th September, 2022

Kashmir is traditionally known for its apples, walnuts, saffron, chinar, pine trees and tulips, but this time Kashmir has come into the limelight for the cultivation of lavender. Lavender is an aromatic flowering plant cultivated extensively across temperate regions for ornamental use or as a culinary herb. Lavender cultivation is seen as a big development by the farmers community in Kashmir.



Lavender cultivation picking up

Ghulam Hassan, 52, a farmer from south Kashmir's Anantnag town said that lavender cultivation is picking up in the valley. "I have started cultivating the lavender in my fields and there is a good response from everyone. I also have good buyers as well," he said.

Hassan said that they are earning good in this business as compared to other work. "The oil extracted from the lavender has a good price and farmers are earning between Rs 15,000-20,000 from one kanal of land," he said.

Another lavender farmer Nisar Ahmad from Shopian district said that Anantnag's Serhama lavender farm has become a popular visitor attraction. "Locals and foreigners make a beeline to witness the lavender bloom. Every day you can witness a huge number of tourists in our fields clicking selfies there," he said.

He added that this flower is also giving a boost to the tourism Industry in Kashmir.

Lavender in 20 J&K districts

Officials said that lavender cultivation is being practiced in almost all twenty districts of J&K while Kashmir has taken up this prestigious farming recently.

Cultivation of lavender has changed the fortunes of farmers in J&K under 'Aroma Mission or Purple Revolution', an initiative of the central government towards transforming the lives of UT's farmers community. Pertinently, Purple or Lavender Revolution was launched in 2016 by the Union Ministry of Science & Technology through the Council of Scientific and Industrial Research's (CSIR) Aroma Mission.

The aim of the mission is to support domestic aromatic crop-based agro-economy by moving from imported aromatic oils to homegrown varieties. Under the mission, first-time farmers were given free lavender saplings while those who had cultivated lavender before were charged Rs 5-6 per sapling.

Farmers are happy

Farmers are happy with farming of unconventional aromatic plants under Aroma Mission. The mission promotes cultivation of aromatic crops for essential oils that are in great demand by the aroma industry.

In J&K, the Council of Scientific and Industrial Research (CSIR) and the Indian Institute of Integrative Medicine, Jammu (IIIM Jammu) are the two bodies responsible for taking the Aroma Mission forward.

The CSIR Aroma Mission is envisaged to bring transformative change in the aroma sector through desired interventions in the areas of agriculture, processing and product development for fuelling the growth of aroma industry and rural employment.

It is expected to enable Indian farmers and the aroma industry to become global leaders in the production and export of some other essential oils in the pattern of menthol mint.

Lavender growing has increased rural farmer employment, sparked entrepreneurship in the production of aromatic oils and other aromatic products and reduced imports of essential and aromatic oils.

1,000 families into business

At present more than 1,000 farming families are cultivating the lavender on more than 200 acres in different parts of J&K. Each farmer has employed at least five other people. Thus, the mission has already employed over 6,000 families.

The farmers say that lavender grown over one hectare of land gives them a minimum of 40 litre of lavender oil. Lavender farming has not only helped increase farm incomes but also provided employment to women farmers who are growing the crop and earning a steady income. Lavender water, which separates from lavender oil, is used to make incense sticks. Hydrosol, which is formed after distillation from the flowers, is used to make soaps and room fresheners. An official of IIIM-Jammu farmers get help from IIIM-Jammu to sell their produce. Many private companies also procure lavender extracts from the farmers.

Notably, Doda district is leading the way and four distillation units have been set up by CSIR-IIIM Jammu in the district. Farmers from remote areas of district Doda reach these plants for extraction of lavender oil. More than 800 progressive farmers of Doda have adopted aromatic cultivation which has now proved out to be profitable.

Official Say

A senior official of Agriculture Department Kashmir wishing not to be named said that they have been helping the lavender farmers at every moment. “The government is serious about promoting the lavender crop and has set up a mission to take it to the next level which can bring employment as well,” the official said. “We have been always telling the farmers that the government is always there for any help,” he added.

Published in:

[India Times](https://www.indiatimes.com)

आर्गेनिक खेती को अपनाएं, ज्यादा से ज्यादा पौधे लगाएं

संवाद न्यूज एजेंसी

लखनऊ। राष्ट्रीय वनस्पति अनुसंधान संस्थान (एनबीआरआई) और क्लीन एंड ग्रीन एनवायरमेंटल सोसाइटी की ओर से संयुक्त रूप से शनिवार को 'पारिस्थितिकी सुधार एवं जैव विविधता संरक्षण' पर राष्ट्रीय सम्मेलन का आयोजन किया गया। एनबीआरआई में आयोजित दो दिवसीय सम्मेलन के पहले दिन मुख्य सचिव व कार्यक्रम के मुख्य अतिथि दुर्गा शंकर मिश्र ने कहा कि पारिस्थितिकी तंत्र के बढ़ते क्षरण को कम करने के लिए ज्यादा से ज्यादा पौधे लगाने होंगे।

उन्होंने कहा कि कीटनाशक व हानिकारक रसायन के इस्तेमाल से कम हो रही मिट्टी की उर्वरक क्षमता को बढ़ाना होगा। इसके साथ ही आर्गेनिक खेती की तरफ भी बढ़ना होगा। उन्होंने समाज के लोगों से एक-दूसरे को जीरो कार्बन उत्सर्जन के लक्ष्य के बारे में जागरूक करने की बात कही। कहा कि इन सब उपायों से हम आने वाली पीढ़ियों को एक सुरक्षित वातावरण दे पाएंगे। इस अवसर पर राष्ट्रीय विज्ञान अकादमी के वरिष्ठ वैज्ञानिक प्रो. रूप लाल ने बताया कि

एनबीआरआई के राष्ट्रीय सम्मेलन में बोले मुख्य सचिव दुर्गा शंकर मिश्र



एनबीआरआई के सम्मेलन के दौरान मौजूद मुख्य सचिव दुर्गा शंकर मिश्र - संवाद

सूक्ष्मजीवियों की हमारे पर्यावरण को सुरक्षित रखने के साथ-साथ मानव शरीर तंत्र में बड़ी भागीदारी है। डॉ. प्रियंका अग्निहोत्री ने बताया कि दो दिवसीय सम्मेलन में शोधार्थियों और वैज्ञानिकों की ओर से पोस्टर व मौखिक व्याख्यान प्रस्तुत किए जाएंगे। इस मौके पर संस्थान के निदेशक प्रो. एसके बारिक, डॉ. एससी शर्मा, मधुलिका अग्रवाल, प्रो. एसपीएस कुशवाहा, डॉ. ध्रुव सेन सहित कई वैज्ञानिक मौजूद रहे।

Afforestation in U.P. - 85% of 100 cr saplings planted in 5 yrs survived: Chief secy

CSIR-NBRI

17th September, 2022

“Approximately 100 crore plant saplings have been planted in Uttar Pradesh over the last five years and 85% of the saplings planted, survived. Plant more trees and raise public awareness about plantations to help reduce environmental degradation,” said chief secretary Durga Shankar Mishra while talking about the plantation campaign being run by the UP Government.



Mishra was speaking as chief guest at an inauguration function of a two-day national conference on Ecological Restoration & Biodiversity Conservation jointly organised by CSIR-National Botanical Research Institute (NBRI), Lucknow and Clean & Green Environmental Society, here, on Saturday.

“The government of India has set a goal of zero carbon emissions by 2070 to create a safe environment for future generations, and this goal can only be achieved with the help of the entire society,” he added.

In his keynote address, Prof Rup Lal, Indian National Science Academy (INSA) fellow and National Academy of Science, India (NASI), senior scientist and the guest of honour, highlighted the role of microbes in ecological restoration and biodiversity conservation. “Our intestines contain approximately 100 million symbiotic micro-organisms. Advanced genomic studies of these symbiotic bacteria revealed that they play a direct role in the human body. The majority of lifestyle disorders such as diabetes, obesity, and hypertension have been linked to these symbiotic bacteria,” he informed.

“70% of life on the earth is plants, followed by about 17% of microorganisms. Less than one gram of coronavirus, in terms of biomass, caused the devastating pandemic throughout the world. These microorganisms have a crucial role in our environment as well as in our body,” he added.

“According to the land degradation map prepared by ISRO, 97.85 million ha (29.7%) of India’s total geographical area of 328.72 million have undergone land degradation in 2018-19. Realising the gravity of such ecosystem degradation worldwide, the United Nations has declared the decade 2021-2030 as the decade of ecosystem restoration to ‘prevent, halt and reverse the degradation of ecosystems on every continent and in every ocean’,” said Prof SK Barik, director, CSIR-NBRI.

SC Sharma, vice-president of the Clean and Green Environmental Society was also present with other dignitaries.

हिंदी सप्ताह के समापन पर विजेताओं का सम्मान किया

पिलानी | सीएसआईआर-केन्द्रीय इलेक्ट्रॉनिकी अभियांत्रिकी अनुसंधान संस्थान (सीरी), पिलानी में आयोजित हिंदी सप्ताह का समापन हिंदी दिवस के उपलक्ष्य में आयोजित पुरस्कार वितरण समारोह के साथ हुआ। पुरस्कार वितरण समारोह में संस्थान के निदेशक डॉ पंचारिया ने हिंदी प्रतियोगिताओं के सभी विजेताओं को पुरस्कृत किया। हिंदी में सर्वाधिक एवं विशिष्ट कार्य करने वाले प्रशासनिक, तकनीकी एवं वैज्ञानिक अनुभागों/प्रभागों को राजभाषा चल वैजयंती प्रदान की गई। प्रशासनिक वर्ग में वित्त एवं लेखा अनुभाग तथा तकनीकी वर्ग में ज्ञान संसाधन केंद्र तथा वैज्ञानिक वर्ग में पीएमईवीडी प्रभाग को राजभाषा चल वैजयंती प्रदान की



पिलानी. विजेताओं का सम्मान करते अतिथि।

कर्माकर ने राजभाषा प्रकोष्ठ द्वारा संस्थान के राजभाषा कार्यकलापों से संबंधित पत्रिका "राजभाषा संदर्शिका 2021-22" विमोचन भी किया। गतवर्ष केंद्रीय हिंदी प्रशिक्षण संस्थान, नई दिल्ली के भाषा शिक्षण कार्यक्रम के

सहकर्मियों को भी प्रमाण-पत्र वितरित किए गए। हिंदी सप्ताह आयोजन समिति के अध्यक्ष डॉ. अभिजीत कर्माकर ने गृहमंत्री अमित शाह के हिंदी दिवस संदेश के प्रमुख बिंदुओं को उदघृत किया। अंत में प्रशासन नियंत्रक जय

Clinical trials of Umifenovir may be over by year-end

SHARMILA KRISHNA ■
LUCKNOW

The repurposing of the generic antiviral drug 'Umifenovir' is an example of translational research and development efforts of the Council for Scientific and Industrial Research-Central Drug Research Institute (CSIR-CDRI). The compound is currently being developed by M/s Medizest Pvt Ltd (Goa) in collaboration with CDRI and is in large-scale, multicentric phase-3 clinical trials. The trials are expected to be completed by the end of this year.

CDRI director Dr Radha Rangarajan said that with COVID-19 slowly becoming endemic, clinicians could benefit from having a wider choice of drugs to treat patients, particularly those at high risk. The Umifenovir project, initiated during Dr Tapas Kundu's tenure, has its origins in a CSIR-led drug-repurposing effort to counter COVID-19.

Nodal scientist and project team lead at CDRI Dr Ravishankar Ramachandran said Umifenovir (Arbidol) was selected from among 16 candi-

dates after a detailed evaluation of the mechanism of action, feasibility of synthesis and published safety studies. The data from in vitro and computational studies performed at CDRI prompted the team to propose the testing of the drug at a dose of 800 mg twice a day, as opposed to the previously approved maximum dose of 200 mg thrice a day. Following approval by the Drug Controller General of India (DCGI), Umifenovir was tested in a phase-3, randomised, double-blind, placebo-controlled clinical trial for efficacy, safety and tolerability in non-severe COVID-19 patients last year.

"Umifenovir is a broad-spectrum antiviral with an excellent safety profile. It has been used as a safe and over-the-counter drug to treat adults, children and pregnant women for influenza and pneumonia for over 20 years in Russia, China and other countries," Dr Ramachandran said.

The CDRI team included chemists Ajay K Srivastava, Chandra Bhushan Tripathi, Nayan Ghosh and Nilanjana Majumdar apart from their

CDRI director Dr Radha Rangarajan said that with COVID-19 slowly becoming endemic, clinicians could benefit from having a wider choice of drugs to treat patients, particularly those at high risk. The Umifenovir project, initiated during Dr Tapas Kundu's tenure, has its origins in a CSIR-led drug-repurposing effort to counter COVID-19

research students. They synthesised the drug within record time and transferred the technology to Medizest despite severe pandemic restrictions.

The DCGI gave its nod in June 2020 for the phase-III trials on asymptomatic, mild and moderate COVID-19 patients at King George's Medical University, ERA's Medical College and Hospital, and Ram Manohar Lohia Institute of Medical Sciences.

Between October 3, 2020 and April 28, 2021, a total of 132 patients were recruited and dosed at 800 mg twice a day for 14 days or received standard of care (placebo arm).

"This trials were the first global double-blind placebo-controlled clinical trials involving 'Umifenovir' against

COVID-19. Umifenovir met the primary and secondary endpoints of the trial for mild-asymptomatic patients. It was found that 73% of patients in the Umifenovir arm became RT-PCR negative as compared to 40% of patients in the placebo arm (P=0.004) on day 5. Further, it was safe and well-tolerated at the tested dosage of 800 mg twice a day for 14 days," Dr Ramachandran pointed out.

The encouraging data validates the scientific approach taken by the team for accelerated drug development.

Dr Ramachandran said that the faster recovery of patients could reduce virus shedding and consequent spread of the infection to others. Based on Umifenovir's known safety profile and data

from the ongoing clinical trials, the drug could also be tested in special populations such as pregnant women and children, a group for which Covid-specific antiviral drugs are not currently indicated. It may also have prophylactic use in high-risk patients. Dr Rangarajan said that the work on Umifenovir led to a larger discovery programme to identify compounds targeting other viral pathogens with pandemic potential in India.

The ongoing phase-3 trials, the second study for Umifenovir for COVID-19, will help establish the efficacy and safety of the drug in a larger number of subjects, paving the way for marketing approval for Medizest. CDRI has strongly contributed towards the battle against Covid in UP over the last two years. The diagnostic laboratory at CDRI has screened nearly 3 lakh patient samples and carried out whole genome analysis of virus strains from several hundred patients to monitor the spread of SARS CoV-2 variants. CDRI has also developed a novel RT-PCR kit that has been out-licenced to industry.

CSIR-NBRI, CIMAP

NBRI, CIMAP work to come up at UN today

Crop Tech, Aroma Mission of City Instts Go Global

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Lucknow: Research, products and technologies of National Botanical Research Institute (NBRI) and Central Institute of Medicinal and Aromatic Plants (CIMAP) will be presented virtually at the 77th session of the UN General Assembly (UNGA) in New York on Thursday.

For the first time, a science summit is being held at the UNGA in which India's Council of Scientific and Industrial Research (CSIR) will showcase the scientific achievements and research work of the CSIR institutes including Lucknow-based institutes (NBRI and CIMAP) before a global audience.

The work of 37 CSIR labo-

Work of 37 CSIR laboratories in India will be presented by some CSIR directors including NBRI director Prof SK Barik. He will present the work of NBRI and CIMAP from Lucknow

ratories in India will be presented by some CSIR directors including NBRI director Prof SK Barik, who will be presenting the scientific work of NBRI and CIMAP from Lucknow and of other CSIR laboratories during the session titled, 'CSIR, India: An innovation hub for global sustainable development'.

"On Thursday CSIR will be presenting its scientific excellence at a global platform in the UN general assembly. In the presentation on agriculture, nutrition and biotechnology, I will present the botanical excellence of

CSIR laboratories in India, while nutrition will be presented by the director of CSIR-Central Food Technological Research Institute, Mysuru, Sridevi A Singh," said Barik.

He said it will be a 30-minute presentation followed by a question-answer session. "I will be presenting the botanical innovation of CSIR labs which will have crop improvement technology and floriculture mission led by the NBRI. The institutes' research on cotton and a rice variety developed will be presented along with others. NBRI is known for developing whitefly-resistant cotton varieties, in which a gene derived from an edible fern was found effective against whitefly," he added.

Similarly, the 'Aroma Mission' led by CIMAP that aims to increase farmers' income through the cultivation of high-value and high-demand aromatic crops and others will be presented.



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