# CSIR IN WEDLA



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Compiled by Science Communication and Dissemination Directorate (SCDD), CSIR, Anusandhan Bhawan, New Delhi



## Himachal Pradesh to become first state in India to have organised cultivation of Mulethi

#### CSIR-IHBT

20<sup>th</sup> February, 2023

For the first time, Himachal Pradesh (HP) has begun the commercial cultivation of liquorice (Mulethi) with the distribution of planting material among the farmers by the Council of Scientific and Industrial Research (CSIR)- Institute of Himalayan Bioresource Technology (IHBT). Dr Sanjay Kumar, director of the institute informed on Monday that planting material of "Mulethi"



(Glycyrrhiza glabra) was distributed to the farmers for commercial cultivation in the state for the first time.

"Mulethi fetches high demand in India which is not only used as a spice but in ayurvedic medicines also due to its medicinal properties, presently it is largely imported from other countries but now HP will be the first state in the country having organised cultivation of Mulethi," said Sanjay. He said apart from Mulethi seeds and planting material of various crops were also distributed to farmers from different parts of the state.

Director said they also launched "One Week – One Laboratory" programme at CSIR-IHBT, Palampur from February 20–25, 2023 to showcase its technological breakthroughs to the general public. The program was inaugurated by Ashish Butail, Chief Parliamentary Secretary, HP.

"The scientists of the institute have significantly contributed towards the self-reliance of farmers and entrepreneurs by developing agricultural techniques of crops like asafoetida, saffron, stevia, lilium, cinnamon. Distillation units were set up in different states to grow and



process aromatic crops, especially lavender and aromatic marigold", Sanjay said while detailing the purpose of the programme.

He said for one week they would keep their laboratories open for the general public, enterprenures new start-ups etc.so they could get to know their research work done by the institute and get benefit.

During this programme, 37 premier institutes of CSIR were showcasing the successes achieved by their technological achievements and innovations across India, he said.

On the occasion, he said, Butai invited the industries to invest in the state and assured them of government support to generate livelihood for the people in the state.

Mulethi is a perennial shrub having sweet roots due presence of glycyrrhizin, which is 50 times sweeter than sucrose and it is used as a natural sweetener in herbal medicines, flavouring in candies and tobacco. It is also used in traditional medicine against treating chest and lung diseases etc.

Mulethi is grown mainly in Afghanistan, while minor producing countries include Pakistan, China, Nepal and India. India imports 8047 tonnes of liquorice annually from Afghanistan, China and Nepal. Realising the large import of liquorice in the country, it was envisioned to extend its production area through initiating organized cultivation after identifying the potential areas in HP The districts of Hamirpur, Bilaspur, Kangra, Una, Solan and Sirmour in HP have potential areas for its cultivation.

## Published in:

Times Of India



## ड्रग डिस्कवरी एवं रिसर्च के लिए मिलकर काम करेंगे CDRI और NIPER

CSIR-CDRI

आत्मिनिर्भर भारत के लिए भारत सरकार की पहल की दिशा में CDRI ने NIPER-रायबरेली और CBMR, लखनऊ के साथ दो अलग-अलग समझौता ज्ञापनों पर हस्ताक्षर किए

लखनऊ। भारत के प्रमुख दवा अनुसंधान संस्थान सीएसआईआर-सेंट्रल ड्रग रिसर्च इंस्टीट्यूट (सीडीआरआई) ने ड्रग डिस्कवरी व

20<sup>th</sup> February, 2023



रिसर्च के लिए दो अलग-अलग 'समझौता ज्ञापन' (MOU) पर हस्ताक्षर किए। सीडीआरआई ने यह एमओयू नेशनल इंस्टीट्यूट ऑफ फार्मास्युटिकल एजुकेशन एंड रिसर्च, रायबरेली (NIPER-R) सेंटर ऑफ बायो-मेडिकल रिसर्च, लखनऊ (CBMR) के साथ किया है।

नेशनल इंस्टीट्यूट ऑफ फार्मास्युटिकल एजुकेशन एंड रिसर्च, रायबरेली फार्मास्यूटिकल साइंस में उच्च शिक्षा और अनुसंधान के क्षेत्र में एक प्रमुख संस्थान है। जबिक सेंटर ऑफ बायो-मेडिकल रिसर्च, लखनऊ (सीबीएमआर) उत्तर प्रदेश सरकार का एक अग्रणी संस्थान है जो रोग-उन्मुख-अनुसंधान हेतु नए निदान एवं उपचारों को खोजने की दिशा में समर्पित है।

इस मौके पर सीएसआईआर-सीडीआरआई की निदेशक, डॉ. राधा रंगराजन ने कहा कि औषधि अनुसंधान एक बहु-विषयक कार्य-क्षेत्र है। इसके सभी घटकों एवं सभी हितधारकों के बीच तालमेल लाने के लिए सहयोग विकसित करने की तत्काल आवश्यकता है। शिक्षा, प्रौद्योगिकी, अनुसंधान एवं विकास एवं उद्योग के बीच तालमेल के ऐसे वातावरण को विकसित करने हेतु प्रशिक्षण एवं परस्पर सहयोग के माध्यम से फार्मसी, जैव प्रौद्योगिकी, सूचना प्रौद्योगिकी को मजबूत कर हम वैश्विक चुनौतियों का सामना करने के लिए खुद को तैयार कर सकते हैं।

एनआईपीईआर रायबरेली की निदेशक, प्रोफेसर शुभिनी ए सराफ ने इस शोध सहयोग के बारे में



अपने विचार व्यक्त किए और कहा कि सीएसआईआर-सीडीआरआई, लखनऊ की ड्रग डिस्कवरी और डेवलपमेंट के क्षेत्र में विशेषज्ञतायें एवं अत्याधुनिक सुविधाएं एवं एनआईपीईआर रायबरेली की विशेषज्ञतायें, साथ मिल कर निश्चित रूप से इस क्षेत्र की अपूर्ण आवश्यकताओं को पूरा करने में सहायक सिद्ध होंगी।

सीबीएमआर, लखनऊ के निदेशक प्रोफेसर आलोक धवन ने बताया कि सीबीएमआर disease-oriented-research के लिए समर्पित है और संस्थान के पास क्लीनिकल सैंपल्स का विशाल रियल-टाइम डेटा है। दोनों संस्थानों की विशेषज्ञताओं एवं कम्प्यूटेशनल बायोलॉजिकल अप्रोच की मदद से हम ड्रग रिसर्च और डायग्नोस्टिक्स हेतु बेहतर समाधान ला सकते हैं।

"एक साथ हम मानवता के लाभ हेतु बेहतर कार्य कर सकते हैं" इस आदर्श वाक्य के साथ, संस्थानों ने ड्रग रिसर्च एंड डायग्नोस्टिक्स के अंतःविषय डोमेन को मजबूत करने के उद्देश्य के साथ आत्मनिर्भर भारत के लिए भारत सरकार की पहल का समर्थन करते हुए एक साथ हाथ मिलाया।

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#### CSIR-IMMT

20<sup>th</sup> February, 2023

## अधिकारियों ने किया आईएमएमटी का दौरा

नवभारत ट्यूरो । भुवनश्वर।

आईएएस, सचिव, इस्पात मत्रालय नागद्र आइएमएमटो) का दोरा किया। उन्होंने मिनरल प्रोसेसिंग पायलट फ्लांट, स्लरो पाइपलाइन टेस्ट रिग, प्लाज्मा प्रोसेसिंग सेंटर, ग्रीन स्टील सेक्शन आदि का दौरा किया। आईएएस सचिव, इस्पात मंत्रालय नागेंद्र नाथ सिन्हा ने सभी विभागों के प्रमुखों और इस्पात वित्त पोषित परियोजनाओं के परियोजना प्रमुखों के साथ एक बैठक में भाग लिया, जिसकी विकास कार्यों को अंजाम दे रहा है। अध्यक्षता डॉ. भाग्यधर भोई, मुख्य वैज्ञानिक और उन्नत सामग्री प्रौद्योगिकी प्रमुख ने की। डॉ. ए के साह, प्रमुख, खनिज प्रसंस्करण विभाग और एसपीबीडी ने लीह और इस्पात अनुसंधान एवं विकास क्षेत्र में संस्थान की विभिन्न गतिविधियों के बारे में बताया। उल्लेखनीय है कि सीएसआईआर-आईएमएमटो इस्पात



मंत्रालय, भारत सरकार द्वारा वित्त पोषित उद्योग द्वारा सामना की जाने वाली बड़ी विभिन्न भविष्यवादी अनुसंधान एवं

इस पर बोलते हुए, आईएएस सचिव सिन्हा ने आयरन एंड स्टील सेक्टर आर एंड डी में आईएमएमटी की भूमिका की सिमुलेशन दूल के त्वरित और उचित सराहना की। उन्होंने अन्य संस्थानों के साथ नेटवर्किंग/सहयोग की भूमिका पर जोर दिया और परियोजना के उद्देश्यों को तेजी से पुरा किया। उन्होंने इस्पात निर्माण क्षेत्र में कार्बन फुट प्रिंट को कम करने में आसान प्रौद्योगिकी हस्तांतरण।

चुनौतियों को हल करने में आईएमएमटी जैसे संस्थानों की महत्वपूर्ण भूमिका के बारे में भी बताया और सूचना प्रौद्योगिकी, आर्टिफिशियल इंटेलिजेंस, मॉडलिंग और समाधान के हस्तक्षेप पर सझाव दिया। परियोजनाओं का उत्पादन, प्रक्रियाओं और उत्पादों का आईपी संरक्षण, लोहा और इस्पात उद्योग के अधिक हित के लिए

### Published in:

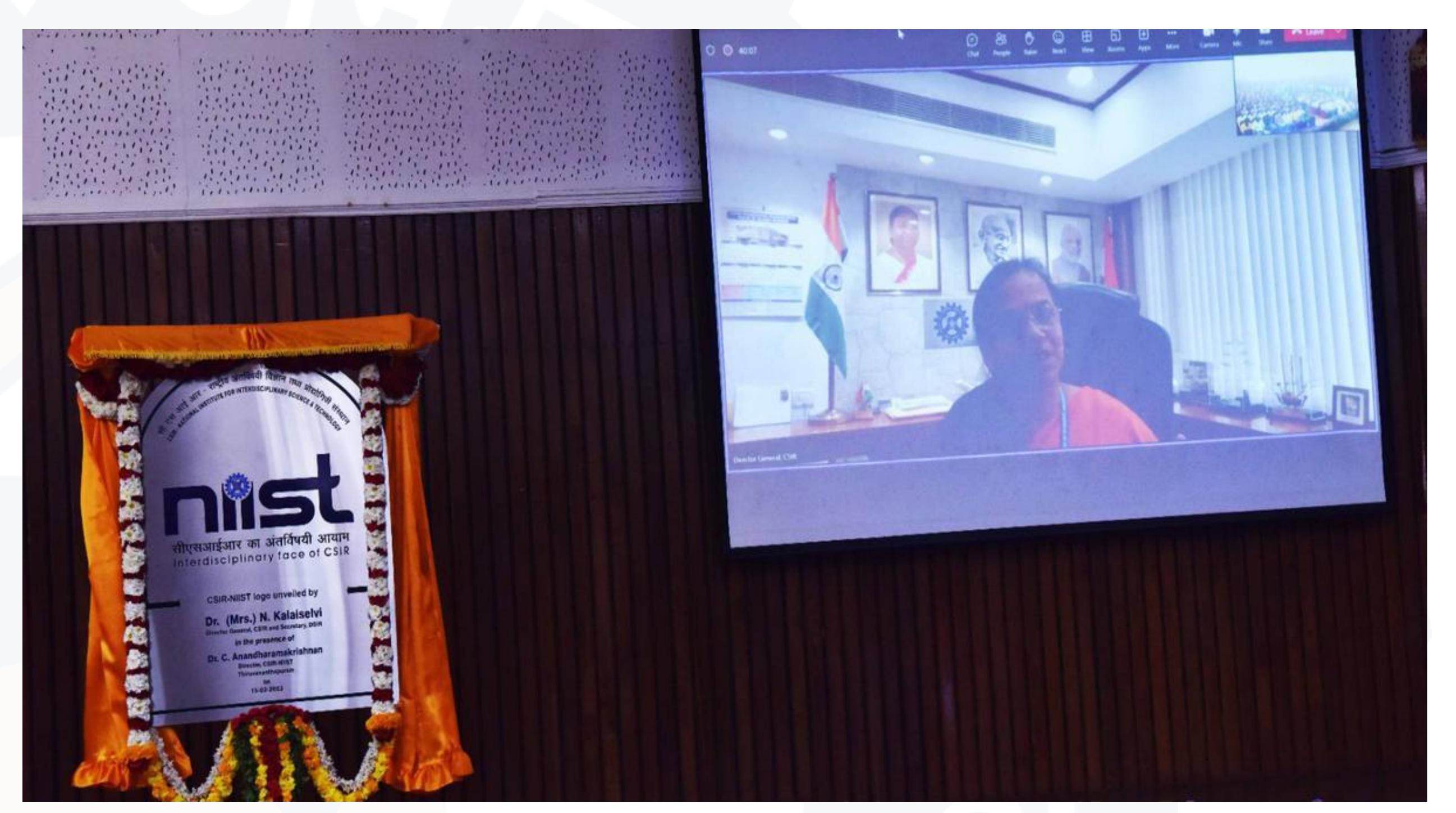


## CSIR-NIIST to host millet recipe contest in March

CSIR-NIIST

19<sup>th</sup> February, 2023

CSIR-National Institute for Interdisciplinary
Science and Technology (CSIR-NIIST),
Thiruvananthapuram, a constituent
laboratory of the Council of Scientific and
Industrial Research (CSIR), has invited
entries for a millet recipe cooking contest to
be held on the sidelines of a Millet Food
Festival 2023 from March 13 to 18 as part
of the International Year of Millets.



The CSIR-NIIST has planned the festival to promote cultivation, value-addition, and consumption of millets across the country, a spokesperson said here. The festival will feature millet food stalls, farmers and MSME meets, millet familiarisation sessions, a chef challenge, cultural programmes, and B2B counters, among others. The Food and Agricultural Organisation has already declared 2023 as the International Year of Millets as proposed by India.

### Limited to 50 entries

The deadline for receiving the application for the competition is February 26 before 5.30 pm, the spokesperson said. Fifty applications will be selected on a first-come-first basis. Those selected should bring the dish for display before the jury on March 4, at 2 pm. Only one dish per person will be allowed. A team led by culinary experts and chefs will evaluate the dish and select the best six. The final event will be held on March 15 (2 to 5 pm) at the Millet Food Court set up at CSIR-NIIST (Industrial Estate, Pappanamcode). The selected six from the preliminary screening should cook their dishes live here and display them on stage during the Millet Food Festival. Millets should be the main ingredient of the dish, which should be easy to prepare at home.



#### Allowed millet combinations

The following millets or their combination could be used for the contest: Pearl millet (kambam/bajra), foxtail millet (thina), proso millet (panivaraku), finger millet (panjapullu/ragi), kodo millet (varagu), barnyard millet (kuthiravaali), sorghum, and little millet (chaama). The best dishes will be awarded ₹10,000 (first prize) and ₹5,000 (second prize). Applications may be sent via WhatsApp to 8606135606 with the name, age, address, and WhatsApp number; or by e-mail to milletfestival2023@gmail.com.

### New logo, revamped website

Earlier, N Kalaiselvi, Director-General, CSIR, and Secretary, Department of Science and Industrial Research (DSIR), unveiled the redesigned logo and website of CSIR-NIIST through videoconferencing. She said the support available for R&D activities at CSIR-NIIST will provide further impetus for developing linkages to other state-owned developmental sectors. She lauded the efforts of NIIST in securing the state's support for its novel initiatives and activities, including coir and rubber research.

### Published in:

The Hindu Business Line



## CDRI develops DNA gel stain, needed in RTPCR

CSIR-CDRI 19<sup>th</sup> February, 2023

The Lucknow-based CSIR-Central Drug Research Institute has developed a DNA gel stain called 'GreenR', which is critical in RT-PCR and other diagnostic tests.

At present, India is dependent on foreign nations for imports to conduct several of these tests. However, the landmark innovation is expected to reduce reliance on other countries and provide a cost-effective alternative to expensive RT-PCR diagnosis.

The institute also claimed that 'GreenR' is India's first indigenous DNA gel stain. 'GreenR' has been developed by CDRI chief scientist Atul Goel with his four researchers in collaboration with Hyderabad-based Biotech Desk Private Limited.

"It provides an economical alternative to commercially available dyes that are used to stain DNA/RNA, which are currently imported," said Atul Goel.

"In any diagnosis, DNA and RNA need to be stained to be detected and quantified. Till now, researchers had been dependent upon stains like Ethidium bromide which intercalates between the DNA strands, and upon shining UV light, it fluoresces orange, thus helping visualise DNA. However, Ethidium bromide is a known mutagen to bacteria, animals, and humans. Hence, its usage is risky for the user and its disposal needs special treatment," he added.

"To overcome these issues of toxicity, some companies have invented safe DNA dyes but these dyes have substantial cost as they are expensive to import and have a patent royalty on their usage," he said while adding that it costs around Rs 4000–5000 per test. 'GreenR' will help researchers in the field of Life Sciences to bring down their costs substantially.

### Published in:

Newsroomodisha



CSIR-NEERI

19<sup>th</sup> February, 2023

## NEERI, IIP, MPCB working on developing Noise ATM to identify honking hotspots

Regulation committee planning to reduce maximum noise limit allowed for horns from 112 dB(A) to 100 dB(A), says senior scientist

#### Staff Reporter

TWO institutes under Council of Scientific and Industrial Research (CSIR) namely Nagpur-headquartered Environmental National Engineering Research Institute (NEERI) and IIP are working in association with Maharashtra Pollution Board Control (MPCB) to develop a 'Noise ATM' to identify the honking hot-spots.

This detail came to fore in a meeting convened jointly by

NEERI and
JanAkrosh to
discuss activities and actions
for control of
noise pollution.
Dr Atul Vaidya,
Director, CSIRNEERI, along
with senior officials of the
I n s t i t u t e
attended the

meeting. In the

meeting, Dr RiteshVijay, Senior Principal Scientist and Head, Waste Water Technology Division, NEERI, presented a study carried out by NEERI on traffic noise including honking. He highlighted some important scientific and technological interventions, and informed the attendees that NEERI and CSIR-IIP were work-



Dr Atul Vaidya, Director, CSIR-NEERI unveiling a video clip of the spatial and strategic noise maps of Nagpur.

ing on development of 'Noise ATM' in association with MPCB to identify the honking hotspots. He also emphasised on the need to manufacture vehicles that could regulate honking intensity with speed of the vehicle. There should be low noise at traffic junctions when the vehicle is idle. He mentioned that the regulation com-

mittee was planning to reduce the maximum noise limit allowed for horns from 112 dB(A) to 100 dB(A).

Prof Landge stressed upon the need to setup mechanism that could distinguish between the honking

noise and ambient noise. Dr Vaidya suggested to organise a series of workshops with different stakeholders for development of effective policies and guidelines to control noise pollution. NEERI is committed to rendering technical inputs to formulate and support policy, he added.

Dr Vaidya unveiled a video

clip of the spatial and strategic noise maps of Nagpur. Chaitanya Thakre, Research Scholar, also participated in the meeting.

DrVishrut Landge, Professor, and Dr Arpita Saha, Assistant Professor, from Department of Civil Engineering, Visvesvarya Institute National Technology (VNIT), and Prof Sneha Uttarwar, Cummins College of Engineering for Women, were also present for the meeting. Shyam Bhalerao, Secretary; Dr Daulat Gajghate, Anil Joshi, and Ashok Karandikar from JanAkrosh took part in the meeting. The participants discussed the scientific and technological aspects that could play a key role in development of new policy and guidelines for abatement of noise pollution.



CSIR-IMMT

19<sup>th</sup> February, 2023

## NMDC, IMMT sign research agreement

POST NEWS NETWORK

Bhubaneswar, Feb 18: National miner NMDC signed an agreement for collaborative research with CSIR-IMMT, Bhubaneswar, on "Feasibility Studies for Preparation of Fused Magnesia from Kimberlite Tailings" Saturday at its head office in Hyderabad.

The agreement was signed between SK Chaurasiya, GM, research and development, from NMDC and Ashok Kumar Sahu, chief scientist and head, Strategy Planning & Business Development, from CSIR-IMMT in the presence



of NMDC's director (production)
Dilip Kumar Mohanty, senior officials of NMDC, the project leaders Kali Sanjay, Chief Scientist
and Head, Hydro &
Electrometallurgy Department,
CSIR-IMMT and C Kesava Rao,
DGM, Hydrometallurgy, NMDC.

"NMDC operates the only mechanised diamond mine in Southeast

Asia at Panna in Madhya Pradesh. This mine produces around 10 carats of diamond (2g) per 100 tonnes of Kimberlite processed, which is dumped as waste after recovery of diamonds. Kimberlite tailings are used for development of value-added products and are also known to be a good source of caustic magnesia. Addressing this research gap for the best utilization of Kimberlite that is available and accumulated over the years at Panna Diamond Mines, NMDC has initiated the Research Agreement to study the processing and preparation of fused MgO and TiO2," said an NMDC official.



## 'Include end users in public health policy guidelines development'

#### CSIR-CDRI

18<sup>th</sup> February, 2023

Public health policy needed multidisciplinary research and end users should be included in guidelines development, said Padma Bhushan Prof K Srinath Reddy, professor and former president of Public Health Foundation of India (PHFI) here on Friday.

Public health policy needed multidisciplinary research and end users should be included in



guidelines development, said Padma Bhushan Prof K Srinath Reddy, professor and former president of Public Health Foundation of India (PHFI) here on Friday.

"Multi-disciplinary collaborations are now essential in health research. Clinical trial designs too are getting altered in response to the changing needs," he added. Prof Reddy was delivering the 48th Sir Edward Mellanby Memorial Oration at CSIR-Central Drug Research Institute (CDRI) in Lucknow on the occasion of 72nd annual day of the institute.

"Science generates ideas and innovations whereas technology produces products. The drug research enterprise embraces science and enthusiastically extends it to medical technologies that impact human health in form of medicines," he added. "The scientific community has to devise methods by which innovation is rewarded while giving priority to societal needs," said Prof. Reddy.

While terming antibiotic resistance a global threat, chief guest Dr Habil Khorakiwala, the founder and chairman of Indian multinational pharmaceutical company Wockhardt said, "A silent pandemic of antibiotic resistant bacteria is causing huge mortality, morbidity and loss



of productivity. Even though in two years of the Covid pandemic, the world saw about 6.7 million deaths due to it but in every single year about 4.9 million deaths occur due to antibiotic-resistant bugs."

"Antibiotics are the centrepiece of modern medicine," he added while informing that his company discovered novel antibiotics which saved the lives of patients infected with drug-resistant superbugs.

Institute's director Radha Rangarajan, while briefing about the achievements of the institute in the past one year, said five drugs for Covid, non-alcoholic fatty liver disease (NAFLD), drug resistant tuberculosis, thrombosis and fracture healing were under clinical trials. Also, three of them were already licensed to industry partners while two drugs were being developed with budgetary support from Indian Council of Medical Research.

"Similarly, another group of small molecule lead compounds is in advanced stages of IND enabling studies for malaria, leishmaniasis, chemotherapy-induced neuropathic pain, colon cancer and hyperlipidemia (high cholesterol)," she added.

## Published in: Hindustantimes



CSIR-NEERI

18<sup>th</sup> February, 2023

## ध्वनि प्रदूषण रोकने ठोस उपाय की आवश्यकता

## सीएसआईआर-नीरी की बैठक में हुआ मंथन

भास्कर संवाददाता। नागपुर।

राष्ट्रीय पर्यावरण अभियांत्रिकी अनुसंधान संस्थान (सीएसआईआर-नीरी) और जन आक्रोश ने मिलकर अनिल जोशी, अशोक करंदीकर पहलुओं की जानकारी दी। उन्होंने श्याम भालेराव, डॉ. दौलत गजघाटे, विजय ने वैज्ञानिक और तकनीकी का सुझाव दिया।



ध्वनि प्रदूषण को रोकने के लिए प्रमुखता से उपस्थित थे। बताया कि ध्वनि प्रदूषण को रोकने संयुक्त चर्चा बैठक आयोजित की। ध्विन प्रदूषण को कम करने के के लिए अलग-अलग योजनाओं पर बैठक में सीएसआईआर- नीरी के लिए नई नीति व दिशानिर्देशों पर काम किया जा रहा है। उन्होंने ऐसे 🕆 निदेशक डॉ. अतुल वैद्य प्रमुखता चर्चा की गई। संबंधित वैज्ञानिक वाहनों की आवश्यकता पर जोर दिया से उपस्थित थे। वरिष्ठ अधिकारियों और उनकी तकनीक पर चर्चा कर जो गति के साथ ध्वनि प्रदूषण को भी समेत अलग-अलग इंस्टीट्यूट से ध्वनि प्रदूषण को रोकने सकारात्मक नियंत्रित कर सके। डॉ. वैद्य ने ध्वनि डॉ. विश्रुत लांडगे, डॉ. अर्पिता साहा, पहल के बारे में विचार किया गया। प्रदूषण कम करने के लिए विविध प्रो. स्नेहा उत्तरवार जन आक्रोश के वरिष्ठ प्रधान वैज्ञानिक डॉ. रितेश स्तर पर कार्यशालाओं के आयोजन



CSIR-NGRI, IICT, NCL

16<sup>th</sup> February, 2023

The CSIR-National Geophysical Research Institute (CSIR-NGRI), a constituent research laboratory of the Council of Scientific and Industrial Research (CSIR) is organizing the 34th Indian Society of Mass Spectrometry (ISMAS) Symposium on "Mass Spectrometry" during 15 to 18 February 2023, in association with the Indian Society of Mass Spectrometrists (ISMAS), Mumbai.

## పలిశోధనల ఫలాలు సామాన్యులకు అందాలి

ఉప్పల్: పరిశోధనల ఫలాలు సామాన్యులకు అందేవి ధంగా ఉండాలని ఐయూఏసీ డైరెక్టర్ న్యూఢిల్లీ బ్రాపెసర్ అవినాష్ చంద్ర పాండే అన్నారు. ఉప్పల్లోని జాతీయ భూభౌతిక పరిశోధన సంస్థ(ఎన్ జీఆర్ఐ) ఆధ్వర్యంలో బుధవారం నిర్వహించిన 34వ ఇండియన్ సొసైటీ ఆఫ్ మాస్ స్పెక్ట్ మెట్రీ సదస్సుకు ఆయన ముఖ్య అతిథిగా హాజరై సదస్సును ఎన్ జీఆర్ఐ డైరెక్టర్ డా.బ్రహశ్ కుమార్తో కలిసి ప్రారం భించారు. న్యూక్లీయర్ వంటి వివిధ రంగాల్లో మాస్ స్పెక్ట్ మెట్రీ పరికరం, దాని అవసరంపై యువ శాస్త్రవే త్తలకు వివరించారు. భూమి, మహాసముద్రం, ఎని ్వరాన్మెంటల్ సైన్సెస్, నానో మెటీరియల్, బయోమా లిక్యూల్స్ తదితర అంశాలపై సదస్సులో చర్చించారు. కార్యక్రమానికి వివిధ సంస్థలకు చెందిన 150 మంది పరిశోధకులు హాజరయ్యారు. అనంతరం ఇండియన్ సొసైటీ ఆఫ్ మాస్ స్ప్రెక్టోమిటి(ఐఎస్ఎంఎఎస్)



సావసీర్**ను విడుదల చేస్తున్న ముఖ్యలతి**థి ప్రాఫెసర్ అవినాష్ చంద్ర పాందే తబితరులు

లైఫ్టైమ్ అచీమ్మెంట్ అవార్డులను ప్రొఫెసర్ కె.గోపా లన్, డా.ఆర్ శ్రీనివాస్శర్మ, డా.ఆర్. శ్రీనివాస్, డా. వీవీ రామారావు, మాస్ స్ప్రెక్టోమెటిస్ట్ అవార్డులను డా.ఎం.మోహనకృష్ణరెడ్డి, డా.యుకె పాండే, డా.శాంత కుమారి, యంగ్ సైంటిస్టు అవార్డు డా.వివి త్రినాథ్ లకు ముఖ్య అతిథి చేతులమీదుగా అందజేశారు.

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