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NEWS BULLETIN

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CSIR-NBRI launches improved lotus variety 'Namoh 108'

CSIR-NBRI

15th August , 2023

CSIR-National Botanical Research Institute launched an improved variety of the national flower Lotus with 108 petals called 'Namoh 108'. The flower was dedicated to the nation a day before Independence Day. The Lotus variety is more weather resilient and can flower from March to December. CSIR-NBRI also released apparels made from lotus fibre and a perfume developed from Lotus plants. A new



variety of Aloe Vera called 'NBRI-Nihar' was also launched, which has 2.5 times more gel yield and is least affected by bacterial and fungal diseases. Research on cotton will be made easier with the use of a chip to make all information about cotton available.

CSIR-National Botanical Research Institute on Monday launched an improved variety of national flower Lotus with 108 petals called 'Namoh 108' at an event in Lucknow on Monday.

The flower was launched a day before Independence Day to dedicate the flower to the Nation by CSIR director general (DG) N Kalaiselvi at NBRI's week-long festival 'One Week One Lab Programme' started on Monday.

The director also inaugurated a wellness centre for CSIR-NBRI staff and planted a sapling at the Botanical Garden. "This is a happy coincidence that 'Namoh 108' is dedicated to the nation a day before Independence Day," She said.

"Considering the religious importance of lotus and the number '108', this combination gives an important identity to this variety," She said.

“This lotus was brought by NBRI scientists from Manipur to conduct research on it. This is the first Lotus variety whose genome is completely sequenced. This plant will never be extinct or endangered like many of our flowers and plants have become,” She added.

“Unlike other lotus varieties, this lotus is more weather resilient. It can flower from March to December. It is the longest flowering variety as compared to other varieties which flowers for 4-5 months only, said KJ Singh, head researcher of the variety.

CSIR-NBRI also released apparels made from lotus fibre and perfume ‘Frotus’ developed from Lotus plants in collaboration with FFDC, Kannauj.

Institute’s director AK Shasany said fibre from the lotus stem was extracted to make clothes. A Manipuri styled coat was made using the fibers by weavers of Barabanki district, he said.

(BOX)

Aloe vera variety launched

A new variety of Aloe Vera ‘NBRI-Nihar’ was also launched on the occasion. As per the Institute the new variety has 2.5 times more gel yield in comparison to normal Aloe vera and is also least affected with bacterial and fungal diseases.

Two herbal products, namely ‘Herbal Cold Drops’ for curing common cough and cold & ‘Herbal Anti-Dandruff Shampoo’ were also launched.

Research on Cotton to be made easier

Research on cotton will be made easier as all information related to cotton will be made available in the form of a chip. NBRI has signed an MoU with Hyderabad based company Nucleome Informatics, for collaborative research on Cotton.

Published in:

[Hindustan Times](#)

CSIR-CDRI Celebrated Independence day with full enthusiasm

CSIR-CDRI

15th August , 2023

CSIR-CDRI Celebrated Independence day with full enthusiasm

The 76th Independence Day was celebrated with full enthusiasm at CSIR-CDRI. On this occasion Director, Dr Radha Rangarajan greeted all the Scientists, Research students and staff and said, we are born in Independent India but for getting this independence our



freedom fighter and our ancestors paid a lot. So it's our moral duty to respect this independence. Independence brings the responsibility, and CSIR-CDRI got a very big responsibility for contributing in Drug discovery and development to support the Pharma industry.

This is an opportunity by which we can show our dedication to nation by doing drug discovery and development of new medicines and therapeutics. India has made great progress in scientific, economic and social sectors but the need to remodel our efforts in tune with changing aspirations and needs always remains. We are all aware of the expectations of the nation from scientific institution that were created just after independence. Science is the engine of economic growth and Nation wants us to introspect our direction of research and make necessary amendments for making effective contributions to our society.

Published in:

Ddnews

Antimicrobial Resistance has become a 'silent pandemic': expert

CSIR-CCMB, IICT

15th August , 2023

Antimicrobial Resistance (AMR) to existing antibiotics has already reached a silent 'pandemic' stage. Sewage sample surveillance being carried out in some of the major cities has been giving sufficient indication of the same, according to director of Tata Institute for Genetics and Society (TIGS) Rakesh Mishra.

“We are seeing a trend in the sewage samples. AMR can be identified very accurately even when there is under-reporting at the clinical level as everyone uses the toilet and bugs will reach the sewage system in some form or the other,” pointed out Dr. Mishra, who is also the former director of CSIR-Centre for Cellular and Molecular Biology (CCMB).

Highlights

A huge effort is being put into wastewater surveillance in Bengaluru, Hyderabad, Pune and Delhi for the past one-and-a-half years. Its major objective is to establish robust protocols, indigenise required reagents/consumables, build the capacity for human resource/training and spread awareness. Dr. Mishra says a common website is on the anvil for better communication. It can also serve as a public outreach to educate the people and avoid misuse of antibiotics.

The CCMB and its sister organisation CSIR-IICT have been carrying out sewage studies quite successfully from the COVID-19 pandemic time by collecting and analysing samples from open drains and, when permitted, from the Sewerage Treatment Plants (STPs) of the Twin Cities. “We can easily make out that there is a large presence of AMR in our environment. Through gene profiling, we can check what antibiotics are not going to work and where we can reduce unnecessary usage. We can, in fact, have different profiles for different areas/cities based on STP sampling. Hence, there is a definite need to scale up the environment surveillance,” explained the top scientist, who continues to do research and

guide his research students at CCMB here. Dr. Mishra said that through ‘meta-genomic’ analysis and ‘gene sequencing’, a “full picture” of all kinds of organisms—bacterial, fungal, viral and others—can be monitored. “Wastewater reveals the truth and even if the clinical symptoms are mild and therefore no reporting, we can find what pathogens are circulating among the people,” he said.

“Wastewater reveals the truth, and even if the clinical symptoms are mild, we can find what pathogens are circulating among the people.”

Rakesh Mishra Director of Tata Institute for Genetics and Society

COVID-19 experience had helped scientists standardise protocols and there are indigenous diagnostics kits available for testing samples for AMR as well as other communicable diseases. “The challenge is to come out with indigenous surveillance kits for which we are working with small firms for developing them,” he explained.

With the help of Rockefeller Foundation grant of about \$9.5 million, in four city clusters—Bengaluru, Hyderabad, Pune and Delhi—a huge effort is being put into wastewater surveillance for the past one-and-a-half years. The major objective is to establish robust protocols, indigenise the reagents/consumables required and also create capacity for human resource/training and spreading awareness.

“We expect to have a common website soon for better communication. It can also serve as a public outreach to educate the people and avoid misuse of antibiotics. Cities like Gandhinagar and a few other places across the country are also doing good work independently with the support of local governments or centrally funded projects,” said the top scientist.

Coordinated approach needed

“Ideally, it will be better to have a coordinated approach with data sharing and analysis of pathogen surveillance since people are always on the move. With the World Health Organisation (WHO) through its International Pathogen Surveillance Network (IPSN) and

the Central government too keen on one health and pathogen surveillance through sewage, it is very much possible to have a public-private partnership (PPP) mode with suitable privacy checks,” said Dr. Mishra.

Effective environmental surveillance would go a long way in identifying the resistant genes to specific antibiotics and perhaps, prevent overuse or stop usage for a considerable period of time to prevent obsolescence. With climate change and environmental degradation, the rate of emerging pathogens affecting humans has become high. Therefore, constant monitoring has become imperative before another pandemic hits, he averred.

'Ushering Blue Economy in India'

CSIR-NIO

14th August , 2023

To discuss and deliberate the role of Research, Technology and Innovation in ushering Blue Economy, a two-day workshop 'Mainstreaming Research, Technology and Innovation in Ushering Blue Economy in India' is being organised at CSIR-National Institute of Oceanography (CSIR-NIO), Goa in collaboration with National Fisheries Development Board (NFDB), Govt of India, Hyderabad on August 17 and 18.

The programme schedule on August 17 focuses on the various facets of Blue Economy and how the complementary knowledge base could contribute to the Blue Growth in India. A 'Conclave of Aqua Farmers of the Konkan region' is scheduled on August 18 to discuss and deliberate the potentials of Blue Revolution by adopting appropriate technologies for sustainable yields.

It is anticipated that the outcome of this workshop would result in enhanced understanding the potentials and gaps to help in developing sustainable technologies, bridging the gap between Industry-Academia-Farming sectors resulting in creating a genre of bio-entrepreneurs in the changing start-up ecosystem, which ultimately leading to seafood security.

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[Times of India](#)

CSIR-NEERI organized Prof. P. Khanna Memorial Lecture

CSIR-NEERI

14th August , 2023

CSIR-National Environmental Engineering Research Institute (CSIR-NEERI) organised Prof. P. Khanna Memorial Lecture on 14 August 2023 in the NEERI Auditorium. Dr. P Sivaswaroop, Sr. Regional Director, Indira Gandhi National Open University (IGNOU), Nagpur was the Chief Guest on this occasion. Dr. Atul Vaidya, Director, CSIR-NEERI and PrakashKumbhare, Sr. Principal Scientist, CSIR-NEERI were also present on this occasion.



Delivering Prof. P. Khanna Memorial Lecture on 'Impact of National Education Policy 2020 on Future Environmental Education', Dr. Sivaswaroop described Prof. Khanna as a visionary environmental educationist. He held that the National Education Policy 2020 (NEP 2020) is a revolutionary leap and will bring a paradigm shift in the field of education in the country. NEP 2020 will provide student-centric, multidisciplinary and experiential education, he added. He informed that India's future aspirations with regard to environment, inculcation of respect for environment, appropriate integration of environmental awareness and sensitivity towards its conservation and sustainable development are integral parts of the National Education Policy. The concerns, concepts and issues related to water and its conservation have already been infused in the existing school curriculum, he added. Elaborating on 'Gross Enrolment Ratio (GER)', a statistical measure used in the education sector to determine the number of students enrolled, Dr. Sivaswaroop said that the NEP 2020 aims to increase the GER to 100% in preschool to secondary level by 2030 whereas GER in Higher Education including vocational education from 26.3% (2018) to 50% by 2035. He advised CSIR-NEERI to commence some online courses in the area of environment in tune with the NEP 2020. He

In his welcome address, Dr. Atul Vaidya, Director, CSIR-NEERI briefed about the significant contributions of Late Prof. P. Khanna. He stated that Prof. Khanna gave recognition to CSIR-NEERI at national and international level.

Mr. Prakash Kumbhare, Sr. Principal Scientist, CSIR-NEERI proposed the vote of thanks and Dr. Shalini Dhyani, Principal Scientist, CSIR-NEERI conducted the proceedings.

38 B.E. (Electronics and Telecommunication Engineering) students from G H Raison Institute of Engineering & Technology and 25 B.Sc. and M.Sc. students from Institute of Science, Nagpur visited laboratories of CSIR-NEERI and interacted with scientists on this occasion.

Now, learn about bonsais, more at NBRI walk-in

CSIR-NBRI

13th August , 2023

If you want to learn all about bonsai or recipes that can be made from millet, the National Botanical Research Institute (NBRI) is the place to be from Monday till Saturday. Under the 'one week one lab' celebrations, NBRI will host an event daily next week for those who want to learn new things.

A campaign of the Council of Scientific and Industrial Research (CSIR), 'one week one lab' highlights India's global excellence in technology, innovation and start-ups.

CSIR-NBRI director AK Shasany said, "The campaign includes events specially planned to establish scientist-student connect. Also, panel discussions on various emerging issues, popular talks by eminent experts, exhibitions and industry meets will be held during the celebrations".

He said NBRI will showcase its achievements in research and development areas, namely botanic garden and floriculture, plant diversity, systematics and herbarium, climate change, microbial and environmental technologies, plant molecular biology and plant genetic improvement and pharmacognosy, pharmacology and phytochemistry during the week-long celebrations. This exhibition will be open to the general public from Monday till Saturday from 11 to 4 pm.

Director general, CSIR, New Delhi N Kalaiselvi will be the chief guest of the inaugural function, whereas joint secretary, CSIR, New Delhi, Mahendra Kumar Gupta will be the guest of honour.

Published in:

[Times of India](#)

‘Sand motor tech will be used to nourish beaches in Goa’

CSIR-NIO

13th August , 2023

The Goa Coastal Management Environment Society has initiated the process of nourishment of beach stretches of the state using sand motor technology.

In a reply to a legislative assembly question, minister for environment and climate change Nilesh Cabral said that an expert scientist from a Netherlands-based agency has been asked to visit Goa for the preliminary study. The study and the work are being undertaken with the technical assistance from National Institute of Oceanography (NIO) and National Centre for Coastal Research (NCCR), Cabral said in his written reply tabled in the House.

The sand motor technology is an innovative intervention aimed at protecting low-lying coastal zones from sea-level rise impacts. It entails extracting a large quantity of sand offshore and depositing it along the coast. The deposited sand acts as a buffer against the sea-level rise.

“The water resources department (WRD) entrusted the study of the Goa coast in terms of its behaviour, erosion sediment transportation etc to National Institute of Ocean Technology (NIOT) in the year 2021 under the World Bank-funded National Hydrology Project,” Cabral said. He was answering a question from Margao MLA Digambar Kamat on the necessary steps taken by the government to prevent sand erosion along the coastline.

Keri in Pernem, Majorda and the coastal area between Mobor and Betul in Salcete, Betalbatim in Salcete, Khanaginim in Quepem, and Coco beach in Bardez face the onslaught of soil erosion, Cabral said in the written reply.

He also pointed to an observation made by the National Centre for Sustainable Coastal Management (NCSCM) in its report on the beach carrying capacity with respect to the

accretion and erosion along the coast of Goa. It stated, “Overall for a coastal stretch of about 105km, 35% of the coast is rocky terrain, 20% of the coast is stable, 27% is under erosion (i.e. 24% of erosion and 3% of artificial coast) and 17% of the coasts experience accretion.” It added, “River mouths and port areas experience significant erosion characteristics. Pocket beaches of Goa are either stable or are accreting. The coast has seawalls (artificial coast) along the coast of Keri.”

As for the minister’s reply, it said, “The WRD has carried out anti-erosion measures which have been majorly initiated on Keri beach at Pernem by using tetrapods. On Coco-beach at Nerul, concrete blocks have been used. On Khanaginim beach at Quepem, stones have been used to mitigate the coast erosion.”

CSIR-IIIM Organized Workshop on AI

CSIR-IIIM

12th August , 2023

CSIR-Indian Institute of Integrative Medicine (CSIR-IIIM), Jammu, as part of JIGYASA program, organized a day long workshop on Artificial Intelligence under the theme “Unseen Presence of Artificial Intelligence: Weaving into the Fabric of Everyday Life”.

This workshop conducted in hybrid mode was attended physically by 60 students and teachers from Jawahar Navodaya Vidyalaya (JNV), Gharota and Govt. Higher Secondary School Sohal, Akhnoor whileas about 500 students from various schools of Jammu region participated through Online mode. The main objective of conducting the workshop on Artificial Intelligence was to create awareness about AI and its wide applications in diverse fields having far reaching impact on the welfare of society.

Dr. Zabeer Ahmed, Director IIIM told that CSIR-IIIM, Jammu, a premier research organization involved in natural products driven drug discovery has also initiated the intervention on Artificial Intelligence (AI) and Machine Learning (ML) techniques in crop improvements and drug discovery and also encouraged the students and teachers to actively participate in various programs being organized by IIIM in the area of science & technology. Er Abdul Rahim, Head RMBD & IST emphasized that understanding AI tools are very important as it is becoming integral part of our daily life. Dr. Ravail Singh and Dr. Shaghaf Ansari (Sr. Scientists) along with IIIM Jigyasa team and IIT students demonstrated AI based working models and examples to the students. Dr. Asha Chaubey, Nodal Scientist Jigyasa program, and Head of fermentation Biotechnology Division (FBD), coordinated the program.

Published in:

[Scoopnews](https://www.scoopnews.in)

Breakthrough: CDRI unveils enhanced 90's contraceptive 'Saheli' with minimal chemicals

CSIR-CDRI

12th August , 2023

The CSIR-Central Drug Research Institute (CDRI) in Lucknow has introduced an innovative contraceptive named 'Levormeloxifene'. The breakthrough contraceptive is notably more effective to the human body with its reduced dose and chemical burden compared to existing market options.

Levormeloxifene is a modernised version of the 1990s 'Saheli' pill, initially developed by CDRI. Once a staple during the 1990s, Saheli, also known as 'Chaya' under the National Family Planning program, has now evolved into Levormeloxifene.

“The core objective behind this contraceptive's development was to minimise the chemical content, particularly crucial for women in their reproductive phase who predominantly consume such tablets,” explained Radha Rangarajan, Director of CSIR-CDRI.

Rangarajan elaborated, “The compound ormeloxifene within Saheli comprises two enantiomers, dextro-ormeloxifene, and levo-ormeloxifene (levormeloxifene). Extensive preclinical studies have indicated higher efficacy of the levo counterpart, levormeloxifene. Consequently, this research solely focuses on testing the levo model as a contraceptive, thereby reducing the unnecessary use of dextro-ormeloxifene and alleviating women from undue chemical exposure.”

The development of this groundbreaking contraceptive is the culmination of a decade-long intensive research effort led by a team of scientists, including Wahajul Haq, Vivek Bhosle, Arun Trivedi, Rajesh Jha, Rabi Bhatta, Sharad Sharma, SK Rath and others.

Upon successful clinical trials, this contraceptive will bolster family planning initiatives, adding to the existing range of contraceptive services within the Programme. These services

encompass Oral Contraceptive Pills (OCPs), condoms, government-provided 'Nirodh' brand, intra-uterine contraceptive devices (IUCD), female and male sterilization, as well as emergency contraceptive pills (ECP).

Notably, Cipla has received approval from the Drugs Controller General of India to conduct Phase-I clinical trials for Levormeoxifene. This investigational drug is a collaborative effort between Cipla and CSIR-CDRI, Lucknow, aimed at developing an oral, non-hormonal contraceptive solution.

CSIR-CIMAP helps Puri farmer develop Tulsi immunity booster

CSIR-CIMAP

12th August , 2023

A group of scientists from CSIR-Central Institute of Medicinal and Aromatic Plants (CSIR-CIMAP), Lucknow in collaboration with a farmer from Puri in Odisha, has developed a Tulsi-based immunity booster 'ocimmune'. The product developed with over two years of research is a combination of five different Tulsi plants.



With Tulsi grown in abundance in Puri, the farmer Ashok K Patra who is a beneficiary of the aroma mission of the institute, was already extracting the essential oils from the plant. Claiming that he found it to be quite effective during the Covid pandemic, he reached to the scientists here.

“Since Tulsi is grown in abundance in Puri for its use as offerings at Jagannath Temple, my company’s production facility is established here itself. I started extracting oil from the plants that were surplus after being used in temples. The oil extracted proved beneficial to many people during the Covid pandemic. Thus, I contacted the CIMAP scientists who further guided me scientifically and technically to develop this product,” said Patra.

“The technology was transferred to a Puri-based farmer who is also one of the beneficiaries of the institute’s aroma mission for mass production. The product will be mass produced by him as he has already organised the needed setup and the machinery installation work has already been completed,” said institute’s director Prabodh Kumar Trivedi. The product developed by Patra is a combination of five distinct varieties of Ocimum Genus (basil) traditionally known as Tulsi. The five varieties are Ocimum Sanctum (CIM Angna), CIM

Shishir, CIM Soumya, CIM Suvaas and CIM Jyoti developed by CIMAP. The technology of the newly developed formulation was transferred to 'Big M Healthcare Pvt. Ltd.' of Odisha during the 45th annual day celebration of CSIR-CIMAP Lucknow on Friday.

The team of scientists from CIMAP are Anirban Pal, Prasanta Kumar Rout, Chandan Singh Chanotiya, Debabrata Chanda, Dharmendra Saikia, Narayan Prasad Yadav, RK Lal, and Ajit Kumar Shasany.

Meanwhile, CSIR-CIMAP Lucknow celebrated 45th annual day of CIMAP on Friday.

Anil Prakash Joshi, environmentalist and Padma Shri and Padma Bhushan awardee was invited as the chief guest along with GN Singh, advisor to chief minister, and Awanish Kumar Awasthi, administrative advisor to the chief minister as the guest of honour.

Technology transfer of two other products developed by the institute also took place which were a sanitary napkin and aroma value kit.

Later, a scientific and industry meet was conducted to discuss problems faced by industries in the production of essential oils and aromatic products.

CSIR-NEIST organizes science motivation programme in Arunachal

CSIR-NEIST

12th August , 2023

The Itanagar branch of the CSIR-North East Institute of Science and Technology (CSIR-NEIST) organized a science motivation-cum-demonstration programme on Friday at the institute premises. About 50 students and teachers from Bunny's Fantasy World School attended the day-long programme. In-charge scientist of the institute, Dr. Chandan Tamuly, briefly introduced the institute, the objective of the programme, and the scientific intervention of CSIR-NEIST towards Atmanirbharta and empowerment in Arunachal Pradesh. He also motivated the students to study the basic sciences and gave ideas about different scopes. Resource person Priyanka Kakoti (TA) talked about the cultivation of mushrooms and their importance to health. The students later visited different labs for demonstrations of practical experiments and to see sophisticated lab equipment and hands-on training on mushroom cultivation, according to a press release here.

Published in:

[Sentinelassam](https://www.sentinelassam.com)

Meet discusses R&D in herbal drugs

CSIR-NIIST

12th August , 2023

An Industry Connect Meet organised by the CSIR-National Institute for Interdisciplinary Science and Technology (NIIST) here on Friday discussed the opportunities and challenges in the research and development of herbal drugs and nutraceuticals. Industry representatives spoke about the challenges surrounding raw material availability and maintenance of quality standards.

NIIST director C. Anandharamakrishnan, who presided, stressed the importance of industry-academia collaboration in overcoming such obstacles. Arvind Saklani, vice president, Sami-Sabinsa Group Ltd, and Deepak Mundkinajeddu, head of R&D, Natural Remedies Pvt. Ltd, and Babu U. V., director, R&D, Himalaya Wellness Company, and representatives of various botanical drug manufacturers attended the meet.

Published in:

[The Hindu](#)

St. Mary's English School students engage in science interaction at CSIR-NML Jamshedpur

CSIR-NML

11th August , 2023

A group of 121 students from St Mary's English High School Jamshedpur, accompanied by three teachers, visited CSIR-National Metallurgical Laboratory, Jamshedpur, and interacted with scientists and research scholars this morning under the aegis CSIR-Jigyasa Virtual lab integration program. The students were thrilled to visit the laboratory and interact with a working group.



The program's main objective was to establish connections with school teachers and students, encouraging students, and make learning science enjoyable.

The inaugural program begins with a welcome address delivered by Dr. Sandip Ghosh Chowdhury, Chief Scientist & Head, MTE Division, CSIR-NML. In his speech, he briefly talked about CSIR and elaborated on various laboratory research activities. He gave a deep insight into learning by knowing and learning by doing. He encouraged students to take examples from daily routines and think from a practical point of view.

After the welcome address, Dr. Animesh Jana, Senior Scientist, and PL CSIR Jigyasa Virtual Laboratory Project, delivered the lecture on CSIR-NML Jigyasa Program and the different activities CSIR-NML took in Jigyasa Program.

Students and teachers also participated in the "Artificial Intelligence and Machine Learning" lecture session. Dr. Suman Tewary, Senior Scientist, AMP Division, delivered the "Introduction to Artificial Intelligence and Machine Learning" lecture. In her speech, she

talked about different types of Artificial Intelligence and Machine learning and its application in daily life.

Dr. Arpita Ghosh, Principal Scientist, AMP Division, discussed “Artificial Intelligence Solutions for Steel Industry”. She also talked about applications and the importance of Artificial Intelligence in the Iron and Steel industry.

The day-long program included visiting research laboratories like AAC, Creep, and the CSIR-NML Museum and Library.

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