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NEWS BULLETIN

11 TO 15 MARCH 2024





## Dr. Sandip Ghosh Chowdhury New Director of National Metallurgical Laboratory

CSIR-NML

15<sup>th</sup> March , 2024

Seasoned Metallurgical Engineer Brings Wealth of Expertise and Leadership to NML

Dr. Sandip Ghosh Chowdhury, a distinguished metallurgical engineer with an illustrious career, has been appointed as the new Director of the National Metallurgical Laboratory (NML) in Jamshedpur, marking a significant milestone for the prestigious institution.

JAMSHEDPUR – Dr. Sandip Ghosh Chowdhury would now be heading NML Jamshedpur. He has just been appointed the new director of NML Jamshedpur.

Dr. Ghosh' ascension to the Director's post in NML has been hailed by his peers.

Born on July 4, 1968, Dr. Chowdhury's academic journey began with a B.E. in Metallurgical Engineering from Bengal Engineering College in 1989, followed by an M.Tech from IIT Bombay in 1991 and a Ph.D. from IIT Kanpur in 1996.

Dr. Chowdhury's tenure at CSIR-NML commenced in 1996 as a Scientist-C, and his dedication and contributions to the field led to his promotion to Chief Scientist in 2015. His expertise spans alloy development, phase transformations, thermomechanical processing, crystallographic texture development, and material characterization.

Pioneering Research and Scholarly Achievements

With 126 research papers published in prestigious journals and 20 patents to his credit, Dr.





Chowdhury's prolific research output has significantly advanced the field of metallurgical science.

His pioneering work includes the development of novel steels and processing schedules for diverse industrial applications.

### International Collaborations and Accolades

Dr. Chowdhury's international collaborations, recognized through the Alexander von Humboldt fellowship in Germany, underscore his global impact.

He has received numerous awards, including the Metallurgist of the Year Award, Young Engineer Award, and Dr. B.R. Nijhawan Award, and is a Fellow of the Indian National Academy of Engineering.



## Training program on 'Tissue Culture Techniques' begins at CSIR-IIIM

CSIR-IIIM

15<sup>th</sup> March , 2024

A three days skill development training programme on Tissue Culture Techniques commenced at CSIR-Indian Institute of Integrative Medicine here today. About 30 participants from diverse backgrounds of Biotechnology, Life sciences, Agribusiness management and agriculture enrolled for the workshop, which was inaugurated by Dr Zabeer Ahmed, Director CSIR-IIIM Jammu.



In his inaugural address, Dr Zabeer said that tissue culture techniques have emerged as a pivotal aspect of modern biotechnology, playing a crucial role in crop improvement, pharmaceuticals, and horticulture. Recognizing the significance of this discipline in the contemporary scientific landscape, IIIM, following the NEP guidelines has taken the initiative to introduce a specialized Skill Development programme aimed at equipping individuals with the necessary skills and knowledge in tissue culture methodologies, he said.

Dr Zabeer Ahmed described the advantages of this technique in quick availability of food throughout the year, irrespective of the growing season, thus opening new opportunities to the producers and farmers.

Dr S K Bakshi, ex Chief Scientist and renowned cytogeneticist, who was the guest speaker, spoke about advantageous technique for plant propagation at a commercial scale. He also gave a lead lecture on "Development of MAPs, using Tissue Culture Techniques, for commercial utilization". He further said that Plant propagation in vitro has the potential to be a powerful



tool in both fundamental and applied biology and said that Cryopreservation of genetic resources technologies have a lot of potential and are rapidly evolving around the world.

Pertinently these hands on training and skill development series have been launched by CSIR-IIIM Jammu as part of CSIR-Integrated skill initiatives. The event was conducted under overall supervision of Er Abdul Rahim, Chief Scientist & Head RMBD & IST. Dr Srinivas Kota, Scientist, gave an overview of whole training program where as Dr Nasir Ul Rasheed, Senior Scientist, gave formal vote of thanks.



## CSIR-NEIST unveils cutting edge loading frame facility

CSIR-NEIST

14<sup>th</sup> March , 2024

CSIR-North East Institute of Science and Technology, Jorhat, has created a state-of-the-art loading frame facility with a capacity of 3000 kN at its premises.

The facility was inaugurated on Wednesday by Dr Virendra M Tiwari, director CSIR NEIST, in the presence of CSIR-NEIST staff.



An official stated that the main objective of the facility is to test the structural behaviour of normal and deep beams, steel and concrete columns, trusses, arches, bearing plates, girders, precast tunnel lining units, sleepers, rails, etc.

This facility shall be useful for testing the engineering materials used in the construction of infrastructure projects such as bridges, dams, refinery units, and power sectors.

The official further mentioned that considering its importance, the facility will be of great benefit not only for the institute but also for the entire North East region.

The facility was built with the support of the Ministry of Housing & Urban Affairs, Government of India, through the Building Materials and Technology Promotion Council, New Delhi (BMTPC) under the Affordable Sustainable Housing Accelerators-India scheme (ASHA-India).

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## Lecture on 'Inspiring Inclusivity in the Workplace' by NEERI

CSIR-NEERI

14<sup>th</sup> March , 2024

This event is based on women empowerment, aimed at creating an inclusive workplace culture. Famous Mountaineer Mrs. Bimla Deoskar will deliver a lecture.

Aachal Goyal, Additional Commissioner, Nagpur Municipal Corporation, Dr Radha Munje, Former Dean, Indira Gandhi Government Medical College and Hospital, Dr Atul Vaidya, Director, CSIR-NEERI, Dr Bigyan Verma, Director, Institute of Management Technology (IMT), Nagpur, Prof Pramod Padole, Director, VNIT, Nagpur, and Dr Atya Kapley, Chief Scientist, CSIR-NEERI will share their experiences and insights during the panel discussion.



## Hyderabad-based institutes play vital role in genome sequencing

CSIR-CCMB

14<sup>th</sup> March , 2024

Two major genetic research institutions from Hyderabad, part of the prestigious GenomeIndia initiative, have played a vital role in completing genome sequencing of 10,000 individuals across India.

Researchers from the Centre for DNA Fingerprinting and Diagnostics (CDFD) and the Centre for Cellular and Molecular Biology (CCMB) have played their part in understanding the human genome, which many geneticists concur is the instruction manual of the human body.

The preliminary results of the genome sequencing of 10,000 individuals, released last month by the Union Minister of State for Science and Technology, Dr Jitendra Singh in New Delhi, have indicated distinct genetic diversity in India. GenomeIndia is a national project funded by the Department of Biotechnology (DBT) and in the first phase completed genome sequencing of 10,000 representative individuals.

A report 'Genome India: Population Genomics for Genomic Health', developed by the program coordinator for GenomeIndia and senior CCMB genetic scientist Dr K Thangaraj said the primary aim was to construct a comprehensive catalogue of genetic variations of Indian population that would better capture the unique diversity.

"This initiative is not just about decoding our genes, it is about creating a detailed reference that encapsulates the Indian population's genetic makeup and enables a deeper understanding of its diversity, health, and diseases," he said.

The researchers collected 19,200 blood samples from 99 ethnic groups which along with their genetic information are available in the GenomeIndia biobank, as a reservoir for future



research and breakthroughs. The sequencing data for more than 7,800 samples have been securely archived at Indian Biological Data Centre (IBDC), New Delhi, and all sequencing data for 10000 samples will soon be available for academic/ research purposes.

“Many of these variations will have clinical significance, leading to targeted clinical interventions for specific sub-groups. The genetic roadmap holds the promise of precision medicine and will potentially transform the landscape of clinical care for the benefit of common people,” the researchers said.



## A new flowering plant found in Arunachal Pradesh is named after a Hyderabad scientist

CSIR-NEIST

13<sup>th</sup> March, 2024

A new colourful flowering plant species, 'Begonia Narahari', with a distinctive feature of displaying a vivid blue iridescence in direct light, was discovered in Mishmi Hills of Arunachal Pradesh's Lohit district by scientists.

If this latest find once again indicated the unexplored flora and fauna potential in the region, the interesting part is the plant has been named after a scientist from Hyderabad, G. Narahari Sastry, who also happens to be a former CSIR-Director of North East Institute of Science and Technology (NEIST), Jorhat (Assam).

Begonia is considered to be one of the largest and fastest growing genera of flowering plants, belonging to the family Begoniaceae, having more than 2,100 species and mainly distributed in tropical and subtropical regions of the world.

This new species was found to be growing on hill slopes composed of sandstone, covered by different species of mosses and ferns, together by University of Science & Technology Meghalaya (USTM)'s assistant professor Nazir Ahmad Bhat and research scholar Bipankar Hajong under the supervision of senior scientist Pankaj Bharali – both from CSIR-NEIST.

They have decided to name after Dr. Sastry in recognition of "his immense contribution to establishing the Germplasm Conservation Centre for the Bioresources at NEIST campus, his unwavering commitment to improving the well-being of the people in the northeastern region and for providing the necessary facilities to conduct our work".

The discovery was scientifically validated by evaluating the specimens using relevant literature, expert scrutiny and consulting the herbarium housed at the Botanical Survey of India, Eastern Regional Centre, Shillong and Arunachal Pradesh before concluding it was



indeed yet to be described species within Begonia sect. The plant discovery was also published in reputed international journal 'Phytotaxa' in its latest issue.

In his late 50s, Dr. Sastry himself is very modest about the unique honour. "I had no role in the discovery. My name has been affixed because of the scientists' affection towards me," he remarked. What he had realised during his tenure as NEIST director from March 2019 till Jan.2024 was that the region has lot more to be explored.

"For our Germplasm conservation centre, we have tried to source several endangered plants by collecting and collating several varieties for their medical, aroma and even floriculture value from the area. We have also collected germplasm of cultivating crops like about 400 varieties of ginger," explained the scientist, who has been a Shanti Swaroop Bhatnagar winner in 2011 and is presently teaching at the IIT-Hyderabad.



## CSIR- Structural Engineering Research Centre and CSIR Madras Complex (CMC) organised "Phenome India" - A Unique Health Check-up Camp

CSIR-IGIB, SERC

12<sup>th</sup> March , 2024

The Council of Scientific and Industrial Research - Institute of Genomics and Integrative Biology, New Delhi (CSIR - IGIB) has initiated a unique health check-up camp called Phenome India - CSIR Health Cohort Knowledgebase (CSIR Cohort - PI-CHeCK) for the CSIR family. CSIR is one of the largest research and development organisations of India and this is a network of 37 laboratories situated across the country.



The CSIR- Structural Engineering Research Centre (CSIR-SERC) and CSIR Madras Complex (CMC) organised "Phenome India" - A Unique Health Check-up Camp during from 8 to 11 March 2024 at CSIR Campus, Taramani, Chennai.

Phenome India is not just a health check-up camp; it's a pioneering step towards understanding the unique health landscape of our nation. By gathering diverse data through PI-CHeCK, CSIR aspires to pave the way for tailored healthcare solutions and contribute significantly to the advancement of medical knowledge.

PI-CHeCK is the flagship project designed by CSIR to identify India-specific risk factors for cardio metabolic diseases. This ground-breaking study, conducted in collaboration with experts and participants from various CSIR labs across the nation, seeks to provide valuable scientific insights, marking a significant stride toward personalized and precision medicine.

PI-CHeCK is a long-term cohort study initiated by CSIR, aiming to encompass the diverse



Indian population. With representation from labs across the country, this health cohort study will collect comprehensive data, including clinical questionnaires, lifestyle and dietary habits, body composition measurements, scanning-based assessments, blood biochemistry, and molecular assay-based data.

The health check-up camp was coordinated by Dr. S. Maheswaran, Senior Principal Scientist and Shri. P. Vasudevan, Senior Technical Officer under the guidance of Dr. N. Anandavalli, Director, CSIR-SERC and Coordinating Director, CMC. Around 180 individuals participated in the four-day PI-CHeCK health check-up camp.



## Union Minister Dr. Jitendra Singh launched 'Common Fellowship Portal'-a single interface between applicants and various fellowship schemes by Department of Biotechnology.

CSIR

12<sup>th</sup> March , 2024



Union Minister Dr. Jitendra Singh launched 'Common Fellowship Portal'-a single interface between applicants and various fellowship schemes by Department of Biotechnology today at National Media Centre, New Delhi.

“Prime Minister Narendra Modi envisaged “Ease of Doing science” for ignited scientific minds of Viksit Bharat” said Dr. Jitendra Singh while addressing the programme after launch of the portal. He added that this portal will save the energy and time of aspiring students and StartUps, besides bringing ease of applying will enable a simplified and streamlined process from the submission of application form to the selection. The applicants can create their profile on the portal and use the same information to auto-fill different applications. Thus, this Portal will help all applicants by reducing their time and energy by getting full information and submission of applications at a single place by click of a mouse! Dr. Jitendra Singh said initiatives of science & technology are in line with PM Modi's whole of Government Approach- one centralized portal for all research applications. Dr. Singh further informed that at present, Departments under the Ministry of Science & Technology (DST, DBT, CSIR) have



come together for submission of application forms and soon application forms for all other Departments such as ICMR, UGC and AICTE will also be on-boarded. The Union Minister of State (Independent Charge) for Science & Technology, MoS PMO, Department of Atomic Energy, Department of Space, Personnel, Public Grievances and Pensions, Dr. Jitendra Singh said “Eligibility Calculator- a unique feature of portal will prove to be a real gateway to research aspirations which allows applicants to check their eligibility for various fellowship schemes by providing specific details and also act as a data repository.

Union Minister Dr. Jitendra Singh Categorically mentioned that PM Modi has emphasized on providing level playing field and giving equal opportunities to students and scholars from even the remotest parts of India. He expressed confidence that in coming days we will also strive for industry linkage to create a bridge between academia and industry and prevent brain drain from our country.

Dr. Jitendra while addressing the ceremony congratulated the team of the ‘Department of Biotechnology’ under guidance of Dr Rajesh Gokhale – for developing the Common Fellowship Portal for benefit of PhD and Post-doctoral students of the country. Dr. Singh guided them by saying that we have set a benchmark in technology and lead by example for other departments.

Dr. Jitendra Singh also congratulated the Working Group consisting of HRD divisions of DBT, CSIR and INSPIRE, KIRAN Divisions of the DST for their hard work in designing and successfully on boarding of application forms of various schemes of the Ministry. He acknowledged that it is not an easy task to coordinate, gather and map the information from various Departments and develop such a common portal. Dr. Rajesh Gokhale, Secretary, Department of Bio-technology. Prof. Abhay Karandikar, Secretary, Department of Science & Technology. Dr Sanjay Mishra, Senior advisor along with Dr. Pragya Palliwal Gaur, Director General, Press Information Bureau and Ms. Namita Gupta , head, INSPIRE were also present for the launch ceremony.

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[Pib](#)



## Agreement signed for transfer of technology for non-corrosive textile reinforced concrete

CSIR-SERC

11<sup>th</sup> March, 2024

An agreement for the transfer of technology for corrosion-free Textile Reinforced Concrete Prototyping Technology (TRCPT), a patented technology developed by CSIR – Structural Engineering Research Centre (CSIR – SERC), Chennai was signed here recently between CSIR and L&T Construction – Water and Effluent Treatment IC.

TRCPT is a precast technology to produce TRC components, for which an Indian patent has been granted. TRCPT can serve as an effective indigenous technological solution to achieve economical mass production of TRC products consisting of fine-grained cementitious binder and non-metallic textile reinforcement, a press release said.

The technology, which was earlier used in toilet construction, has now been upgraded for the production of components such as facade elements, industrial flooring tiles, street furniture, canopy structure partition walls, noise barriers, roofing elements and manhole covers. Flowerpots, wash basins, doors and window frames and door panels too, can be produced using this technology.

Alkali-resistant glass fibre is the base for the technical textile called 'Build Tech' used in this technology. TRCPT does not contain any steel and therefore, is corrosion-free. The textile has a minimum life of 50 years. The technology was developed by Smitha Gopinath, Principal Scientist, CSIR-SERC. The agreement was signed in the presence of N. Anandavalli, Director, CSIR-SERC, K. Sathish Kumar, Chief Scientist and Head, Business, Knowledge Management & Development Division, CSIR-SERC, S. Parivallal, Advisor (Management), CSIR-SERC, Simeshwaran Pillai, Chief Engineering Manager, L&T and Dayana Rexaline M.R., Operations Head, L&T.

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## Director IIIM Inaugurates Skill Development on OECD Principles in GLP

CSIR-IIIM

11<sup>th</sup> March , 2024

A three day Skill Development Programme on OECD Principles in GLP was inaugurated at CSIR-Indian Institute of Integrative Medicine Jammu under CSIR-Integrated Skill Initiatives. Dr Zabeer Ahmed, Director CSIR-IIIM was the chief guest at the event while Dr SG Ramachandra, Chief Research Scientist, IISC Bangalore and Dr PV Mohanan, Scientist G & Head, Toxicology SCTIMST Kerala were the distinguished key resource persons.



Dr Zabeer Ahmed during his inaugural address endorsed the critical need of implementing the GLP not only in non-clinical studies but also in the exploratory and basic research which would have a strong bearing for the global acceptance of the data ensuring the reproducibility and uniformity. He further said that the event is a significant step towards enhancing the quality, reliability, and integrity of laboratory research practices, aligning with global standards set by the Organisation for Economic Co-operation and Development (OECD).

He also gave an overview of the Institute's capabilities and commitment towards fulfilling SDG's by equipping laboratory professionals with the necessary knowledge, skills, and best practices outlined by the OECD, a prominent international organization committed to promoting policies that improve economic and social well-being worldwide.

Dr Ahmed in his address asked the participants to adhere to OECD Principles in GLP laboratories ensuring the generation of high-quality data, fostering trust and credibility in



scientific research outcomes and gain insights into various aspects of GLP such as study design, documentation, quality assurance, and regulatory compliance, enabling them to implement robust protocols and procedures within their respective laboratories.

He asked the participants to take advantage of this Skill Development Program which is expected to encompass a comprehensive curriculum, including theoretical lectures, practical demonstrations, and hands-on training sessions conducted by seasoned industry professionals and GLP experts.

Two renowned experts in GLP, Dr SG Ramachandra and Dr PV Mohanan emphasized the program's importance in fostering excellence and compliance within laboratory settings.

While conducting the technical sessions on Day One, Dr PV Mohanan discussed OECD Principles of GLP: Terminology and later discussed Test Facility Management while Dr SG Ramachandra talked about Test Facility: Requirements and Standard Operating Procedures in GLP.

The Program was conducted under supervision of Er Abdul Rahim, Chief Scientist & Head, RMBD & IST Division while Dr Gurleen Kaur, Scientist Pharmacology conducted the proceedings of Inaugural program.

The welcome address was given by Dr Ramajayan Pandian, Scientist Pharmacology while as Dr Nasir Ul Rasheed, Senior Scientist & Nodal Scientist Skill Development presented the formal vote of thanks.



## Breaking barriers: CSIR-NIScPR conducts a workshop to promote Science Communication in Assamese

CSIR-NIScPR, NEIST

11<sup>th</sup> March, 2024

CSIR-National Institute of Science Communication and Policy Research (NIScPR) organised today a virtual workshop on “Interactive and New Approaches to Communicate Science in Assamese” covering popular science writing, video, podcast and social media. The workshop sought to connect aspiring and experienced science communicators in Assamese to establish a network within the field. Leading and



budding science communicators, teachers and researchers representing various universities, institutions and colleges from Assam attended the workshop.

The workshop commenced with an introduction by Dr. Paramananda Barman, Scientist, CSIR-NIScPR and coordinator of the workshop. Prof. Ranjana Aggarwal, Director, CSIR-NIScPR delivered the welcome address. Prof. Aggarwal elaborated CSIR-NIScPR's endeavours in science communication and its advocacy for science communication in Indian languages. She discussed the national initiative SVASTIK (Scientifically Validated Societal Traditional Knowledge), which is disseminating validated traditional knowledge in 17 Indian languages, and the popular science magazines by CSIR-NIScPR. Additionally, Prof. Aggarwal emphasised the significance of science communication in languages such as Assamese, Bodo and Manipuri.

The Chief Guest, Dr. Dinesh Chandra Goswami, Scientist G (Retd.), CSIR-NEIST, and a leading science communicator in Assamese, emphasised on the use of simple language to write a popular science article. He also talked about the importance of financial support to budding



science communicators to engage them in science writing. The technical session I of the workshop was on “popular science writing”. This session included talks by leading Assamese science communicators Dr. Ramesh Chandra Goswami, Dr. PC Tamuly and Dr. Paban Kumar Sahariah. Dr Ramesh Chandra Goswami mentioned the importance of popular science writing. He also shared his experiences to improve popular writings. Dr PC Tamuly emphasised about the importance of writing science fiction to engage and attract a large readership. He stressed the need to read a large variety of books to improve the writing skills. Dr. Sahariah further elaborated the need to encourage science writing in Indian languages. He also discussed the use of AI for translations and its pitfalls. Ms Arati Halbe, Managing Editor, Research Matters, gave insights on writing stories in English and Marathi. She mentioned the importance of using local examples and cultural practices to which people relate the most.

The technical session II of the workshop was on “Science filmmaking, social media & podcasts for SciComm”. Shri Vivek Kannadi of Science Media Centre, IISER Pune, highlighted the importance of films in communicating science through an interactive talk that covered important aspects of filmmaking such as writing a script and creating a storyboard. Dr. Paramananda Barman and his team used examples from the SVASTIK program and demonstrated how to create infographics, short videos/reels, and podcasts using free online tools. The daylong session ended with a brainstorming discussion on strengthening science communication and outreach strategies in Assamese.



## CDRI develops first-of-its-kind oral pill to fasten bone healing process

CSIR-CDRI

11<sup>th</sup> March , 2024

Lucknow's Central Drug Research Institute (CDRI) has come out with an oral pill that might help fasten the process of healing after a fracture. The institution is currently working on two bone healing entities, namely CDRI-1500 and CDRI-399. Necessary approvals from drug regulatory bodies have been received and the phase-1 clinical trials for CDRI-1500 will begin soon.

Tests show that the drug has therapeutic potential and can work as a rapid fracture repairing agent. It can also help improve bone health in the management of osteoporosis and other bone-related disorders.

"Pharmacological data suggests that S007-1500 possesses potential osteogenic property and shows accelerated fracture repairing by significantly increasing the callus formation at the fracture site in the test models," CDRI wrote.

CDRI-1500 is being said to be safe, economical and the first-of-its-kind.

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