# CSIR IN MEDIA

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भारत का नवाचार इंजन
*The Innovation Engine of India*

## NEWS BULLETIN
## 11 TO 15 FEBRUARY 2025





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

# Training on Processing of Industrially Important Products concludes at IIIM

CSIR-IIIM

15th February , 2025

CSIR-Indian Institute of Integrative Medicine (CSIR-IIIM), Jammu, here today successfully completed five-day training programme on 'Hands-on Training on Upstream & Downstream Processing of Industrially Important Products'. The programme saw participation of 17 postgraduate and doctoral students from six universities across India.


Conclusion of the training programme was graced by dignitaries including Dr. Zabeer Ahmed, Director, CSIR-IIIM, Jammu, and Abdul Rahim, Chief Scientist, Head of RMBD & IST and Head of CSIR-IIIM Srinagar Branch.

Dr. Zabeer Ahmed while addressing the participants said that at present they are pursuing the academic courses in microbiology to learn the subject at conventionally and such hands-on trainings are meant to expose them to the advanced industrial microbiology which has application in pharmaceuticals, bio-pharma, bio-fuel, food, environment and pollution etc.

He expressed pride in India's reputation as 'Pharmacy of the World' and reaffirmed the institute's dedication to nurturing young researchers, promoting self-reliance in biopharmaceutical products development and contributing to the nation's vision of Viksit Bharat @2047.

Earlier Dr. Vikash Babu, Coordinator of the training programme, gave a brief of the lectures delivered and hands-on training imparted during last five days.

On first day, Dr. Asha Chaubey, Senior Principal Scientist and Head of the Fermentation and Microbial Biotechnology (FMB) division, delivered first lecture on 'Opportunities in Industrial Microbiology and Fermentation Technology'.

This was followed by a session from Dr. Saurabh Saran, Principal Scientist, FMB division on 'Role of CSIR-IIIM in Entrepreneurship and Skill Development in J&K'.

Afternoon practical sessions were led by Dr. Vikash Babu, focusing on 'Upstream Processing, Sterilization, and Inoculation in Fermenters'.

Last day of training was led by Dr. Kanhaiya Kumar, Senior Scientist, FMB Division.
In the second half, assignment activity was carried out by Dr. Nasir Ul Rasheed followed by valedictory session.

The valedictory session proceedings were conducted by Nargis, Ph.D scholar while Dr. Vinod Kumar, Senior Scientist in the FMB Division presented vote of thanks.

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Dailyexcelsior

# CSIR-NIScPR Hosts One-Day Workshop on the Need and Significance of Communicating Science in India

CSIR-NIScPR

15th February , 2025

The Council of Scientific & Industrial Research - National Institute of Science Communication and Policy Research (CSIR-NIScPR) successfully organized a one-day workshop on the "Need and Significance of Communicating Science in India" at its premises in New Delhi. The event aimed to evaluate existing efforts in science communication in Indian languages and explore strategies to enhance public engagement with science across diverse linguistic communities of India.

In her welcome address, Prof. Ranjana Aggarwal, Director, CSIR-NIScPR, emphasized the crucial role of science communication in bridging the gap between scientific research and society. She highlighted the importance of communicating science in regional languages to ensure inclusivity and broader outreach, stating, "True scientific progress is inclusive. Promoting science in regional languages ensures that knowledge reaches every corner of society." Dr. Naresh Kumar, Head, PME, provided introductory remarks, reinforcing the need to disseminate scientific knowledge in regional languages. Dr. Manish Mohan Gore, Senior Scientist, CSIR-NIScPR and Primcipal Investigator of Indian language project said that public engagement is essential to percolate the authentic information of science and technology in regional languages of the country.

The workshop featured insightful discussions by esteemed speakers from various scientific and media institutions. Shri Deepak Kumar, Assistant Director, Commission for Scientific and Technical Terminology, addressed "Current Form, Problems, and Utility of Science

Terminology." Shri Balendu Sharma, Digital Media Communication Head, Microsoft, provided insights into "The Present and Future of AI and the Digital World." Dr. Santosh Kumar Shukla, Executive Secretary, National Academy of Sciences, India, discussed "Science Writing and Popular Science Literature in Indian Languages," while Ms. Neha Tripathi, a Digital and Social Media Expert, elaborated on "Different Sources of Scientific Content and Their Authenticity.“

Further, Dr. Krishna Nand Pandey, Former Scientist-F, ICMR, highlighted "The Role of Health Communication in Creating Awareness in Indian Society." Ms. Ankita Mishra, Editor, NRDC, explored "The Utility and Importance of Print Media in Science Popularization in the Social Media Era.“ The afternoon session featured regional perspectives. Shri Shivanandan, Programme Executive, All India Radio, shared insights into "Radio and Agricultural Science Programmes: Nature and Possibilities." Shri Samir Ganguly, Science Writer, highlighted "Social References of Science Fiction Stories."

The workshop provided a dynamic platform for experts, communicators, and participants to engage in meaningful interactions. Discussions yielded policy recommendations to strengthen science communication in Indian languages, emphasizing increased academia-government-media collaboration and strategies for capacity building among science communicators. The event drew 40 participants, including faculty and students from Banaras Hindu University, Central Sanskrit University, Gurugram University, and CSIR-NIScPR, along with scientists, researchers, and policymakers. A total ofo8 speakers participated, with 06 joining online and 02 attending in person, fostering a rich exchange of ideas.

The event concluded with an interactive session and a Q&A round with students, followed by closing remarks and a vote of thanks by Dr. Manish Mohan Gore, Senior Scientist, CSIR-NIScPR, and coordinator of the workshop. The workshop reaffirmed CSIR-NIScPR’s commitment to promoting accessible and inclusive science communication in India.

**Published in:**

Pib

# Bullet-proof security booth to keep soldiers safe, comfortable

CSIR-SERC

15th February , 2025

Personnel of the Indian Army, IAF, BSF, CISF, and others, who guard our borders and crucial institutions, sitting behind sandbags round the clock, braving harsh weather conditions, can now rely on a fully-indigenous prototype bullet-resistant security booth developed by the Council of Scientific & Industrial Research (CSIR) - Structural Engineering Research Centre (SERC), Chennai. The booth made its debut at Aero India.

"The 'High-Velocity Multi-Hit Resistant Movable Protective Booth' stands 4 ft X 4ft X 8 ft, weighing 1,650 kg. The booth is bullet-proof, ensuring protection for the soldiers in the most challenging environments, and is multi-hit resistant.

It is fixed with movable castor wheels, and can be installed and dismantled in an hour," said Dr Amar Prakash, Senior Principal Scientist and Head, Advanced Protective Structures and Mechanics Laboratory, CSIR - SERC, Chennai.

"The booth offers ample space for security personnel to operate with desired protection from short projectiles of 7.62-mm calibre," he said, adding that the booth is priced at Rs 2 lakh.

**Published in:**
Newindianexpress

# Humans putting Himalayan Hangul Deer under stress during mating, birthing seasons

CSIR-CCMB 15th February , 2025

Scientists at the CSIR-Centre for Cellular & Molecular Biology (CCMB) have highlighted the need for minimising human disturbances such as livestock grazing and herder movement during the mating and birthing seasons for population recovery of the Hangul Deer living in the Himalayas.

They deduced this after conducting an extensive research led by chief scientist G. Umapathy and his team at Laboratory for the Conservation of Endangered Species (LaCONES) to study the reproductive patterns and physiology of the deer species to help in their conservation.

The study, taken up as part of the National Mission on Himalayan Studies, had scientists examining patterns of reproductive and stress hormones in the free-ranging Hangul populations in the Kashmir Himalayas using non-invasive faecal hormone analysis.

The scientist team, which included Tanshree Srivastava, Javaid Hameed, Vinod Kumar, Harika Segu, Sneha Narayan, Moomin John and Karthikeyan Vasudevan, spent more than a year (2019-20) in the cold upper Himalayan region to study the animals whose numbers have dwindled to just 300-350 now.

The research team found the male Hangul to be exhibiting a synchronised rutting or mating season from October to December, while the females showed dispersed oestrus cycles, suggesting multiple opportunities for conception, explained Dr. Umapathy.

The Elevated Progesterone Levels (FPM) in females from January to March indicated pregnancy, with a sharp decline in April suggesting synchronised parturition or birthing. Testosterone levels in males were positively correlated with stress, confirming rut-related competition among males. Both males and females experienced increased glucocorticoid levels

interpreted as stress during mating. Females showed additional stress peaks around parturition (birthing) of April-May. Another secondary stress peak was observed in May for both sexes, which the LaCONES chief scientist, said could be linked to disturbances from migratory livestock herders and their dogs. Food availability was negatively correlated with progesterone levels, confirming that new births or parturition coincides with the peak forage availability, he said.

Mr. Umapathy said understanding the timing of mating and birthing of the Hangul deer has become critical for the conservation strategies, including the captive breeding programs. The research work has been published in recent issue of 'Nature Scientific Reports'. LaCONES has a biobank of about 250 species of mammals, birds and reptiles of the country. It has already produced a black buck fawn 'blacky' and a spotted deer fawn 'spotty' through artificial insemination.

**Published in:**
The Hindu

# One Week One Theme Vigyan Rath flagged off at CSIR-IMMT

CSIR-IMMT, CGCRI, CMERI, CIMFR, NML

14th February , 2025


CSIR- Institute of Minerals and Materials Technology (IMMT), Bhubaneswar flagged of the Vigyan Rath, designed to popularize one week one theme research activities among the people of India. The Vigyan Rath was officially inaugurated by Dr.(Mrs.) N.Kalaiselvi, Secretary, DSIR, Government of India and Director General CSIR in presence of Dr.Ramanuj Narayan, Director, CSIR-IMMT and Sabyasachi Mohanty, Director (Operations), OMC Limited and other dignitaries of CSIR and IMMT.

Speaking on this occasion Dr.(Mrs.) N.Kalaiselvi, Secretary, DSIR, Government of India and Director General CSIR, said, "Today, we inaugurated the Kalyan Rath , an initiative promoting science-based education and awareness. This innovative project will travel through schools, colleges, and communities in Odisha, Jamshedpur, Jharkhand, and neigh boring states. Over three weeks, it will disseminate scientific knowledge and inspire citizens to contribute to India's growth.

The Kalyan Rath aims to foster a culture of science and innovation, aligning with the vision of Viksit Bharat 2047. This endeavor promises to empower individuals and shape India's future particularly through CSIR." The Vigyan Rath has been designed as per the thematic area of Research & Development, Mining, Minerals, Metals and Materials (4M) theme.

About 25 CSIR laboratories across the country are working under this theme for research, innovation and technology development towards sustainable utilization of mineral and metal

resources of the country. The celebration of one week one theme (OWOT) event got commenced under the direction of Dr.Jitendra Singh, Honourable Minister of State for Science & Technology and Earth Sciences and Vice President of CSIR.

The aim and objective behind this initiative is to create awareness among citizens of India, particularly the students and young entrepreneurs of India about the research capability and technological credentials of the CSIR Labs, to benefit them new avenues and opportunities for employment, empowering stakeholders such as MSMEs, Start-ups, SHGs, scientists, researchers by integration and collaboration with Industries. Speaking on the occasion, Dr.Ramanuja Narayan, Director, CSIR-IMMT said, "Vigyan Rath will cover various places in Odisha, West Bengal and Jharkhand, primary schools and educational institutions and R&D institutions.

A team comprising scientists, technical staff, students along with Vigyan Rath will apprise the general public about the importance and achievements of R&D in the 4M theme area. During the visit, CSIR-CGCRI Kolkata and CSIR-CMERI Durgapur will coordinate nearby areas of West Bengal and CSIR-CIMFR, Dhanbad and CSIR-NML, Jamshedpur and adjoining areas of Jharkhand. During this visit, DG CSIR also inaugurate the newly renovated and modernized heath centre of CSIR-IMMT campus, which is named as AROGYAM.
This health centre is for staffs and pensioners of CSIR-IMMT.

Other research facilities like RP Das centre for Hydro Bio & Electrometallurgy, Additive & Speciality Chemicals Lab and Solar photo-reactor pilot plant were also inaugurated. Foundation stones were laid for the Platinum Group of Elements (PGE) Pilot plant and the solvent extraction pilot plant for rare earth element separation, by DG, CSIR in presence of Director (Operations), OMC Limited and Director, CSIR-IMMT. DG-CSIR also interacted with staffs and research scholars of CSIR-IMMT through her address in a function at CSIR-IMMT Auditorium. Three technologies were transferred in this occasion. Dr.LD Besra, Chief Scientists offered the Vote of Thanks.

**Published in:**

Odisharay

# CSIR-NIScPR hosts One-Day Workshop on International Day of Women and Girls in Science: Empowering Girls in STEM

CSIR-NIScPR

12th February , 2025

The Council of Scientific & Industrial Research - National Institute of Science Communication and Policy Research (CSIR-NIScPR) successfully organized a one-day workshop on thefirst decadal anniversary of the International Day of Women and Girls in Science. Themed "Empowering Girls for Participation in STEM: Fostering Awareness for Inclusive Education," the event aimed to inspire and encourage young girls to pursue careers in Science, Technology, Engineering, and Mathematics (STEM). Aligning with UNESCO's theme, "Unpacking STEM Careers: Her Voice in Science," the workshop was held at the CSIR-NIScPR, New Delhi. The workshop brought together 56 undergraduate female students from four renowned women's colleges of the University of Delhi, Gargi College, Kalindi College, Lady Irwin College, Deshbandhu College and Miranda House, alongside esteemed academicians, researchers, and policymakers. It provided a valuable platform for mentorship, resources, and critical insights into government initiatives, scholarships, and funding opportunities available for women in STEM.

In the welcome address Prof. Ranjana Aggarwal, Director, CSIR-NIScPR emphasized the importance of gender equality in STEM and the need to create an enabling environment for women to excel in scientific careers. She reflected on the challenges faced by women in transitioning from academia to professional roles, underscoring the significance of gender sensitization and breaking stereotypes. Dr. GeethaVaniRayasam, Head, CSIR-Human Resource Development Group, delivered an insightful talk on CSIR's various initiatives to support women in science. The session was further enriched by esteemed speakers discussing challenges and opportunities in STEM for young women. The keynote address was delivered

by Prof. Mini Thomas, Dean, Faculty of Engineering & Technology, Jamia Millia Islamia, and Former Director, NIT Trichy, who served as the Chief Guest. She encouraged young women to break barriers in traditionally male-dominated STEM fields and urged institutions to create more opportunities for women scientists.

The second session featured Dr. Monika Kulshrestha, Chief Scientist, CSIR-National Physical Laboratory, who emphasized the importance of maintaining good health while striving for lifelong learning and professional growth. This was followed by an expert lecture by Dr. AmbikaBehl, Senior Principal Scientist, CSIR-Central Road Research Institute, titled "Highway Engineering Field: A Man's World" She shared her journey from laboratory research to fieldwork, addressing gender biases and societal expectations. She emphasized the need for women to step out of their comfort zones, recognize their strengths, and navigate professional challenges with confidence. Dr. Kanika Malik, Senior Principal Scientist, CSIR-NIScPR and Delhi branch convenor of the Indian Women Scientists' Association (IWSA), delivered an IWSA related talk. The interactive segment of the workshop included a group discussion based on pre-filled questionnaires, allowing students to express their aspirations and challenges in STEM education. Mrs. SandhyaWakdikar, Senior Principal Scientist, CSIR-NIScPR, delivered a talk on "Opportunities for Undergraduate Girls in STEM" and provided valuable information on government schemes, funding opportunities, and resources available to support women in STEM careers.

The workshop concluded with a vote of thanks by Mrs. SandhyaWakdikar, followed by the National Anthem. CSIR-NIScPR reaffirmed its commitment to bridging the gender gap in STEM and fostering an inclusive scientific community for future generations. This initiative marks a significant step towards empowering young women in STEM, ensuring that they receive the necessary support and resources to thrive in scientific careers.

**Published in:**

Pib

# CSIR-IIIM trains 80 farmers, 90 students in scientific floriculture at Kathua

CSIR-IIIM

12th February , 2025

The CSIR-Indian Institute of Integrative Medicine (IIIM) conducted an extensive training programme on scientific management and value addition of floricultural crops at Government Degree College, Kathua, as part of its CSIR Floriculture Mission outreach. The programme, which included seed distribution and hands-on training, saw participation from 80 farmers across different zones of Kathua district and 90 college students. Farmers received training in scientific nursery production, crop management, disease control, and marketing strategies, along with quality seeds of high-yielding marigold cultivars.

Students were trained in various value-addition technologies including dry flower technology, resin art, floral jewelry, perfumes, attars, and flower printing, aimed at developing entrepreneurial skills in floriculture-based enterprises.

Dr. Zabeer Ahmed, Director CSIR IIIM Jammu, assured continued support for farmers and students through capacity building and incubation programs. The mission, mentored by Dr. Jitendra Singh, Minister of State for Science and Technology, aims to enhance the floriculture sector in the UT by increasing region-specific crop acreage.

Dr Shahid Rasool, Nodal Scientist of CSIR Floriculture Mission, highlighted how the mission has transformed India's floricultural sector through promoting high-value crops and scientific farming practices, contributing to import substitution and agri-entrepreneurship opportunities.

Dr Vishal Mahajan, Professor and Head of KVK Kathua, emphasized adopting scientific cultivation practices and market-driven approaches for maximizing profits. Prominent floriculturist Tejindar Singh Wazir commended CSIR-IIIM's efforts in enhancing farmer incomes and stressed the importance of crop diversification.

The programme addressed key challenges including soil fertility constraints, climate variability, and irrigation resources, emphasizing technology-driven solutions for improved productivity. Dr. Maliqa Majid, Project Scientist, conducted the proceedings, while Dr. Siya Ram Meena, Senior Technical Officer, delivered the vote of thanks.

The initiative is part of the Union Ministry of Science and Technology's flagship societal missions aimed at transforming farmer economy and regional prosperity through scientific intervention in agriculture.

**Published in:**
Greaterkashmir

# Dr. Jitendra Singh Calls for Competency Framework to Strengthen India's Scientific Workforce

CSIR

12th February , 2025


In a high-level meeting with Secretaries of Scientific Ministries, Departments, and Organizations and other higher officials, Union Minister of State (Independent Charge) for Science and Technology; Earth Sciences and Minister of State for PMO, Department of Atomic Energy, Department of Space, Personnel, Public Grievances and Pensions, Dr. Jitendra Singh underscored the need for a structured competency framework for individuals working in scientific institutions. The Minister directed that the framework, developed in coordination with the Capacity Building Commission, should incorporate both functional and domain-specific competencies. Emphasizing the importance of outreach, he insisted that "how much is my outreach to the public stakeholders" be included as a key performance indicator (KPI), a facet often overlooked by science ministries.

Taking stock of the ambitious "Vigyan Shakti" initiative, the Minister reviewed its progress and reiterated its role as a unified repository aimed at catalysing scientific efforts into developmental outcomes. Built on pillars such as inter-agency collaboration, industry-academia interactions and leadership and governance, the initiative seeks to maximize returns on investment in science. As part of this, he assessed the India Science, Technology, and Innovation (ISTI) Portal, which is envisioned to consolidate the database of India's science and technology ecosystem and enhance accessibility to critical research resources.

Dr. Jitendra Singh also reviewed the status of the Common Fellowship Portal, designed as a one-stop platform for research grants India. According to the latest data, the portal has

garnered over 5,000 registered users, with more than 1,500 having completed their profiles and being eligible to apply for fellowships. The Minister expressed satisfaction at the growing participation and encouraged further awareness efforts to make research grants more accessible to young scientists.

In a push to bridge the gap between research and industry, Dr. Jitendra Singh proposed that all scientific labs under various ministries develop a dedicated calendar for industrial meets. He highlighted that a structured engagement with the private sector would not only accelerate the commercialization of scientific discoveries but also enhance their impact on public welfare. Such an Initiative, he stated, would ensure that technological breakthroughs reach the masses faster and more efficiently.

In a move to promote inclusivity in scientific research, Dr. Jitendra Singh urged all departments to explore opportunities for attaching tribal students to various scientific institutes for internships and exposure. He stressed that such initiatives would provide underprivileged students with valuable insights into research and innovation, fostering a more diverse and inclusive scientific community.

The meeting was attended by Dr. A.K. Sood, Principal Scientific Advisor to the Government of India, along with Prof. Abhay Karandikar, Secretary, DST; Dr. Rajesh Gokhale, Secretary, Biotechnology; Shri Ravi Chandran, Secretary, Earth Sciences; Dr. N. Kalaiselvi, DG, CSIR; Dr. V. Narayanan, Chairman, ISRO and Secretary, Department of Space and other senior officials.

The meeting marked a significant step towards institutionalizing structured scientific engagement, fostering innovation, and ensuring that the benefits of research extend beyond laboratories to public stakeholders.

**Published in:**
Pib

# BEL signs MoU with CSIR-NAL for collaboration in aerospace technologies

CSIR-NAL

11th February , 2025

At Aero India 2025, Bharat Electronics Limited (BEL), a Navratna Defence Public Sector Undertaking (PSU), signed a Memorandum of Understanding (MoU) with CSIR-National Aerospace Laboratories (NAL), Bengaluru. The agreement aims to facilitate collaboration in the domains of Unified Air Space Management and Sensor Development for Loitering Munition (LM) and High-Altitude Platform Station.

The MoU underscores BEL's commitment to advancing indigenous technological capabilities in aerospace and defence sectors. By partnering with CSIR-NAL, BEL seeks to leverage cutting-edge research and development expertise to enhance the country's strategic and operational capabilities in airspace management and sensor technology.

The signing of the MoU at Aero India 2025 highlights BEL's proactive approach towards engaging with premier research institutions to bolster national defence capabilities. The collaboration is expected to contribute significantly to advancements in aerospace technology, supporting both military and civilian applications.

**Published in:**

Psuwatch

# Delhi L-G inaugurates NDMC Tulip Festival-2025

CSIR-IHBT

11th February , 2025

The New Delhi Municipal Council Tulip Festival – 2025 was on Tuesday inaugurated by Delhi Lieutenant Governor V. K. Saxena and Ambassador of the Kingdom of Netherlands Marisa Gerards at Shanti Path, Chanakyapuri. The two also participated in a Tulip walk and visited a Tulip exhibition. After inaugurating the NDMC Tulip Festival, L-G Saxena congratulated NDMC Chairperson Keshav Chandra and Vice Chairman Kuljeeet Singh Chahal for their efforts to plant 3.25 lakh tulips this year.

Apart from Shanti Path, tulips have also been planted in 20 parks of DDA this year. As many as 15,000 tulip saplings were nurtured in Himachal Pradesh before plantation in New Delhi. Potted tulips are also available for public sale at Shanti Path and other NDMC parks.

"Our aim is to minimise the dependence on imports in the next four years," he said, adding that "we must make Delhi more beautiful for which such efforts will continue". He thanked the Netherlands for the cooperation and said as a gesture of gratitude, a tulip plant has been named 'Maitri'. Ambassador of Netherlands Marisa Gerards said that we're planting the tulips to celebrate, the friendship between our two countries.

"We could see that the city of Delhi was doing so well by growing the tulips. But, of course, there is much more that binds our two countries together than just tulips. We share a strong and friendly relationship that goes back a long way. We collaborate in many important sectors, such as agriculture, health, water management, and innovation. We are very strong partners

in these areas," she added. The NDMC began planting its tulip bulbs in 2017-18 as a trial to assess the seasonal suitability. Starting with 17,000 bulbs, this initiative has since grown significantly becoming an annual tradition of floral beautification of New Delhi, said a statement.

This initiative has proved a great success, making the NDMC the first Civic Body in India to plant these precious flowers in public space, it said.

This year, the NDMC imported 3.25 lakh tulip bulbs and planted 2.25 lakh in open space of which 1.46 lakh tulip bulbs were planted at Shanti Path alone, said an official.

Tulips are blooming in different locations of the New Delhi area like Central Park at Connaught Place, NDMC Convention Centre Lawn, Lodhi Garden, Talkatora Garden, Sardar Patel Marg, Mandi House, Windsor Place, Shershah Suri Marg and many roundabouts.

As a trial through storage and multiplication, 10,880 large bulbs were produced and these also have been planted, said the official.

In collaboration with the Institute of Himalayan Bio Resources Technology – CSIR, 14735 bulbs were produced at Palampur in Himachal Pradesh and received to plant in this Tulip Festival.

For the first time, the NDMC has made the potted plants of one lakh tulip bulbs and has put it up for sale to make them available to the public at Shanti Path Lawn, Lodhi Garden, Nehru Park, Talkatora Garden, Central Park, and NDMC nurseries (Safdarjung Madarsa, Gurudwara Park, Purana Quila Road etc), the official.

**Published in:**
Thehansindia

# National Workshop on Export and Technology in the Marble-Granite Handicraft Sector

CSIR-AMPRI

10th February , 2025

A national workshop on "Export and Technology in the Marble-Granite Handicraft Sector" was organized by the Micro, Small and Medium Enterprises (MSME) Development Office (Ministry of MSME, Government of India), Jaipur, in collaboration with AMPRI Bhopal, District Industry and Commerce Center, Udaipur, RIICO, Udaipur, Marble Association Udaipur, and Handicraft Association Udaipur. The event took place at the Udaipur Marble Association office in Sukher.

The Association President, Pankaj Kumar Gangawat, informed that a successful seminar was held on the topic of export and the use of new technology in the marble-granite and handicraft sector. The seminar provided information about the technology for creating useful products from slurry.

Assistant Director of MSME and DFO Jaipur, Balram Meena, welcomed all entrepreneurs and inaugurated the program. Surendra Kumar, Assistant Director of MSME Development Office, Jaipur, explained the theme of the program, stating that technology has been developed to make various useful products from the waste of marble-granite-handicraft materials. He also mentioned that export promotion has created new business opportunities in the sector.

Dr. Ashokan P., Chief Scientist at CSIR-AMPRI Bhopal, provided insights on the technology developed by CSIR and AMPRI to create various useful products from slurry. Chouka Ram from the District Industry Center, Udaipur, spoke about various schemes of the state government.

The chief guest, Dr. Ashokan P., encouraged all entrepreneurs to take advantage of schemes related to technology and export. Export expert, Rais Ahmed, discussed export procedures,

while EESL shared information about energy-efficient technologies.

The program also included technical sessions on new products made from slurry in the marble-granite-stone-utensil-oil sector, the technology provided by stone routers, wire-cut technology, and how to engage in export. Additionally, information was shared about various schemes offered by the MSME Ministry.

Entrepreneurs working in the marble-granite sector participated in the event.

**Published in:**
Pressnote

# Mainstreaming discussions on genes and genetic diseases

CSIR-CCMB

10th February , 2025

Last year, at the Open Day of the CSIR-Centre for Cellular and Molecular Biology (CCMB), a biology research institute in Hyderabad, we administered a questionnaire to 78 students of Classes VIII-XII. We gave them genetic statuses of two parents and asked them to predict chances of their child getting sickle cell anaemia, a genetic disease. As many as 60 of these students got it wrong whereas they could answer questions on infectious diseases much better.

While both genes and infection-causing microbes are invisible to the naked eye, understanding the functioning of genes is arguably more abstract. When combined with the complexities of technical jargons and quantitative analyses, it is then not as surprising to see that young people find it difficult to think about genetic diseases. This is not a problem limited to classroom exercises. As many as nine to ten crore Indians are estimated to have genetic diseases. Simply put, they have at least one gene whose composition has altered such that it causes them a disease, and can also pass to their biological children. India has reported about 450 different genetic diseases but some like sickle cell anaemia is more prominent than others. Most diseases require both parents to have at least one disease-causing gene for their child to be at a risk of begetting it.

Scientists at CCMB explain marriages in small communities in India have led to different genetic diseases becoming prevalent in different communities. That is because if people marry among relatives or within small communities, over time, people in those communities have similar genes. As a result, the chances of both parents of a child having the disease-causing gene also increases. A higher number of people with diseases is a problem for society to address for communal health and financial well-being of people and the state.

Testing for the disease-causing changes in genes in prospective partners is one of the easiest ways to predict the risks of diseases in their future children. This is particularly useful for

those diseases where compositions of single genes decide the outcomes. Sickle cell anaemia and thalassemia are examples of such diseases. Though the tests are easy and cheap to conduct, the associated social stigma prevents people from getting tested. There are examples of people calling off marriage alliances when the tests reveal that one of the potential partners carry a disease-causing gene. This happens even when disease in future children requires both partners to carry the same faulty gene.

If not in prospective parents, then one can test for genetic diseases in fetuses or newborns too. These help parents to prepare for the health conditions of their children. In our experience at CCMB, people opt for these tests especially when their earlier children are diagnosed with genetic diseases. Early detection can also aid in better treatment options in some cases such as spinal muscular atrophy.

And, there are complex diseases too, such as diabetes. Multiple genes are involved in a disease like diabetes, and we don't understand all of them very well. For preventing such diseases, societies have to challenge their traditions of marrying within their families or small communities. So, India needs sensitive public health campaigns for young people and old. At CCMB, we designed the Gene-Health Connect, a mobile science exhibition with Visvesvaraya Industrial and Technological Museum, Bengaluru. The scientists at CCMB set the theme and the learning objectives of the exhibition and the museum brought in its expertise of conceptualising and building the exhibits and capacities of running a long-term exhibition.

Set in a bus with 20 exhibits, in the last 1.5 years, it went around cities and villages of Telangana and Andhra Pradesh, both states where consanguineous marriages are prevalent. The exhibition has gone to high schools and colleges as well as reached out to residential communities and village panchayat offices. A science communicator travels with the bus who trains student volunteers at the venue; these volunteers then help their peers go through the exhibition. The interactive exhibits explain how genes function, how the gene composition can sometimes cause genetic diseases, how timely genetic testing and avoiding marriages in close relatives and small communities can prevent spread of such diseases.

It also gives a glimpse at the different facilities and techniques available in India for testing and treatment. The exhibition bases itself on the examples of diseases in India. The interactive activities, some mechanical and others electronic, make the abstract concepts of gene function and quantitative analyses of genetics more visual.

Some find it interesting to understanding how the genetic makeup of the father's sperm determine the sex of the child while some spend more time understanding how genes decide our traits or how a disease like sickle cell anaemia actually manifests in our bodies.

Young women thronged to understand how fetal testing techniques work. Some hosting schools and colleges also invited medical doctors and genetic counsellors to take ahead the conversation in their communities and local media to popularise it.

The exhibition has reached more than two lakh people so far. Teachers of host institutions welcomed the bus because it relates with the textbook content they have to teach as well as goes to details beyond the textbooks. Young women students found the theme of the exhibition related to their health and bodies. Medical schools found the exhibition useful in educating the young doctors on the science of genetic diseases.

While we hope that it has served well as a supplementary educational resource for students and teachers, the larger wish is that it has been a conversation starter on making better informed health choices among the younger people and on creating the right ecosystem to enable those choices among the older ones.

Making and running a mobile science exhibition is resource-intensive. But, we hope that every person who has come across the exhibition is inspired to educate and inform others on how to prevent genetic diseases.

**Published in:**
Edexlive

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