

CSIR in Media



News Bulletin
1st to 10th June 2018



CSIR lab to give technology for India's first indigenous Lithium Ion Battery project

CSIR



India will soon start producing first indigenous Lithium Ion batteries. A MoU was signed today between CSIR's Central Electro Chemical Research Institute (CECRI), Karaikudi, Tamil Nadu and RAASI Solar Power Pvt Ltd. India will soon start producing first indigenous Lithium Ion batteries. A memorandum of understanding for transfer of technology for India's first Lithium Ion (Li-ion) Battery project was signed today between CSIR's Central Electro Chemical Research Institute (CECRI), Karaikudi, Tamil Nadu and RAASI Solar Power Pvt Ltd. According to the Ministry of Science and Technology, the indigenous technology of Lithium-ion

10th June, 2018

cells has been developed by a group of CSIR-CECRI headed by Dr Gopu Kumar in partnership with CSIR-National Physical Laboratory (CSIR-NPL) New Delhi, CSIR-Central Glass and Ceramic Research Institute (CSIR-CGCRI) Kolkata and Indian Institute of Chemical Technology (CSIR-IICT) Hyderabad. "CSIR-CECRI has set up a demo facility in Chennai to manufacture prototype Lithium-Ion cells. It has secured global IPRs with potential to enable cost reduction, coupled with appropriate supply chain and manufacturing technology for mass production," a Science and Technology Ministry release said today. At present India depends on countries like China, Japan and South Korea for import of Lithium Ion batteries. India imported Li-Ion batteries worth \$150 million in 2017 and is one of its largest importers in the world. Speaking after the signing of MoUs, Union Science and technology minister Harsh Vardhan said: "Today's development is a validation of the capabilities of CSIR and its laboratories to meet technology in critical areas to

support our industry, besides other sectors.” The indigenous production of Li-Ion batteries is expected to boost Prime Minister Modi flagship programmes like generating 175 Giga Watts of clean energy by 2022 and National Electric Mobility Mission. “It will give tremendous boost to two flagship programmes of Prime Minister Narendra Modi – increasing the share of Clean Energy in the energy basket by generating 175 Giga Watts by 2022, of which 100 Giga Watts will be Solar and the second, National Electric Mobility Mission, to switch completely to electric vehicles by 2030,” said Harsh Vardhan. The project, the minister said, is also in tune with PM Modi’s vision of “Make in India” to turn the country into ” a manufacturing hub and to cut down outflow of foreign exchange.” As per the MoU, Raasi Group will set up Li-Ion manufacturing facility in Tamil Nadu’s Krishnagiri district, which is close to Bengaluru. The company aims to bring down the cost of cell manufacturing below Rs 15,000 per KW to replace the Lead Acid batter. The company also plans to manufacture Li-Ion battery for solar rooftop with life span of 25 years. “We want to bring down the cost of cell manufacturing below Rs. 15,000/- per KW to replace Lead Acid Battery...” “We also have plans to make Lithium Ion battery for solar roof top with life span of 25 years to make it affordable enough to drive the Photo Voltaic segment,” Raasi Group Chairman-cum-Managing Director C Narsimhan said.

Why Lithium-Ion batteries:

Li-Ion batteries have applications in Energy Storage System – from hearing aid to container sized batteries to power a cluster of villages, Electric Vehicles (2-wheeler, 3-wheeler, 4-wheeler and Bus), portable electronic sector, Grid Storage, Telecom and Telecommunication Towers, Medical Devices, Household and Office Power Back (UPS), Powering Robots in Processing Industry.

Lithium-ion batteries can power any electrical application without the need of physical wires-means wireless.

Published in:

[Financial Express](#)

CSIR-NML

9th June, 2018

भास्कर खास

धातु और धातुकर्म के बारे में अपने नॉलेज और तकनीक को देंगे, पांच करोड़ रुपये की पहली किश्त मिली

एनएमएल के वैज्ञानिक इथोपिया के साइंटिस्ट को देंगे प्रशिक्षण, इसके लिए 45 करोड़ रुपये मिलेंगे

संजय प्रसाद | जमशेदपुर

राष्ट्रीय धातुकर्म प्रयोगशाला (एनएमएल) जमशेदपुर, अफ्रीकी देश इथोपिया की ढांचागत संरचना के विकास में सहयोग करेगा। इसके लिए इथोपिया ने भारत सरकार के साथ करार किया है। इसके तहत एनएमएल जमशेदपुर के साइंटिस्ट इथोपिया के वैज्ञानिकों को प्रशिक्षण देकर उनकी क्षमता का विकास करेंगे। एनएमएल जमशेदपुर के निदेशक डॉ. इन्द्रनील चट्टोपाय ने बताया क्षमता विकास के लिए

तीन साल का होगा प्रोजेक्ट

एनएमएल जमशेदपुर और इथोपिया के बीच का यह प्रोजेक्ट तीन साल का होगा। करार के तहत एनएमएल जमशेदपुर के वैज्ञानिक 2021 तक इथोपिया के वैज्ञानिकों को मेटल और मेटलर्जी के बारे में प्रशिक्षण देंगे।

इथोपिया, एनएमएल जमशेदपुर को 45 करोड़ रुपये देगा, जिसकी 5 करोड़ की पहली किश्त मिल चुकी है। स्कौल चट्टोपाय, इथोपिया का सकल घरेलू उत्पाद (जीडीपी) काफी है, लेकिन मेटल (धातु) के

क्षेत्र में नॉलेज नहीं होने की वजह से ढांचागत संरचना का विकास नहीं हो रहा है। वहां के वैज्ञानिकों को धातु और धातुकर्म (मेटलर्जी) के बारे में जानकारी काफी कम है। ऐसे में इथोपिया सरकार चाहती है

एनएमएल के लिए गर्व की बात है

एनएमएल जमशेदपुर के निदेशक डॉ. इन्द्रनील चट्टोपाय ने बताया कि आज भारत विज्ञान और प्रौद्योगिकी के क्षेत्र में इतना तरक्की कर चुका है कि वह अपनी क्षमता और तकनीक दूसरे देशों को निर्यात कर सकता है। रूस, फ्रांस और जापान जैसे देशों ने भारत को अपनी तकनीक क्षमता प्रदान की है।

कि एनएमएल मेटलर्जी के क्षेत्र के अपने नॉलेज और स्किल को उनके वैज्ञानिकों को दें ताकि वे इस जानकारी को अपने देश की ढांचागत संरचना के विकास में इस्तेमाल कर सकें। भारत सरकार ने एनएमएल

जमशेदपुर को यह जिम्मेवारी सौंपी है। इसमें सेंट्रल मेकेनिकल इंजीनियरिंग रिसर्च इंस्टीट्यूट दुर्गापुर, स्ट्रक्चरल इंजीनियरिंग रिसर्च सेंटर (सीएमसीएल) मद्रास, सेंट्रल साइंटिफिक इंस्ट्रुमेंट्स ऑर्गेनाइजेशन (सीएसआईओ) चंडीगढ़ और सेंट्रल इलेक्ट्रॉनिक्स इंजीनियरिंग रिसर्च इंस्टीट्यूट (सीईईआरआई) पिलानी मदद करेगा। इस ट्रेनिंग प्रोग्राम के अन्तर्गत एनएमएल जमशेदपुर के वैज्ञानिक इथोपिया और इथोपिया के वैज्ञानिक एनएमएल जमशेदपुर आकर प्रशिक्षण लेंगे।

Published in:

Dainik Bhaskar

Our govt is forward-looking, not stuck in ancient wisdom: Vardhan

CSIR

8th June, 2018



New Delhi: Distancing himself from controversial statements made by his party colleagues, including Tripura Chief Minister Biplab Kumar Deb, Union Minister for Science & Technology Harsh Vardhan on Thursday said that his government is forward-looking and not stuck in ancient wisdom. Highlighting the achievements of his ministry in the last four years, Vardhan said, "Our science is now working to solve important challenges in the areas of water, energy, health, environment, climate, agriculture, food. At the same time, India is getting future-ready in launching ambitious missions in the

cyber-physical system, artificial intelligence, supercomputing, deep-ocean, biopharmaceuticals, and others, which will make us globally competitive in a rapidly changing world order." In reply to a question on shrinking of budgetary allocations, the minister said, "The investment in science, technology and related areas has gone up during the last four years starting 2014-15 to 2018-19, as against five years of the ousted UPA government i.e, 2009-10 to 2013-14." "The budget allocation to Department of Science & Technology was Rs 19,764 crore, which is a whopping 90 per cent increase. Similarly, there was an increase of 65 per cent for the Department of Biotechnology; almost 43 per cent increase for CSIR and 26 per cent increase for Ministry of Earth Sciences," Vardhan said. In his presentation, CSIR DG Girish Sahni said, "The anti-diabetes drug BGR-34, which is developed by two laboratories of CSIR, has been proving an extremely successful herbal medicine. The BGR-34 was launched in the market during

2015-16 and in just a few years it has been placed at the top 14th position of 6,367 medicines launched in the market during the last two years." It's the outcome of the efficacy of the anti-diabetic ayurvedic drug BGR-34 that it has been in high demand as the drug is effective in reducing the amount of sugar in the blood. Hailing his ministry for improvement in weather predictions, Vardhan said, "The accuracy level of the IMD has improved drastically over the period of time. We have been able to predict weather forecast with accuracy. The monsoon predictions by IMD have improved a lot." In reply to a question on alerts about dust and thunderstorms, Earth Sciences Secretary M Rajeevan said, "We predicted about the extreme weather event three days before (it hit). We admit that there is an issue in reaching out to people and there is a need to improve our dissemination strategy."

Published in:
[Millenium Post](#)

DCM advocates using science to tap state's natural resources

CSIR-NEIST

8th June, 2018

ITANAGAR: Deputy Chief Minister Chowna Mein on Thursday advocated sustainable utilization of the rich natural resources of the state through scientific and technological interventions. During a meeting with scientists from the Jorhat (Assam)-based CSIR-North East Institute of Science & Technology (CSIR-NEIST) here, Mein said sustainable use of the state's resources would transform the socioeconomic condition of Arunachal. He urged the scientists to extend their services and technical expertise to strengthen the research & development wing of the frontier state.

“Research and development is important to generate and develop products, processes and technologies in order to meet the international standards in terms of quality, cost, and efficiency,” he said. CSIR-NEIST Itanagar branch coordinator Dr Pinaki Sengupta made a PowerPoint presentation highlighting the activities and schemes implemented by the CSIR-NEIST in the state on bio-fertilizer production, composting, and installation of distillation units. He informed that the institute is planning to provide more scientific and technological inputs in the state in the area of organic agriculture, besides providing entrepreneurship development and value addition for local resources, addressing local problems through scientific and technological interventions, generating employment through MSME technologies and skill development, and creating scientific awareness among the people. He said the institute is planning to expand its activities in new areas, in collaboration with the state government, to replicate its activities in all the districts. Among others, State Horticulture & Research Development Head Dr Egam Basar and a host of senior scientists from the CSIR-NEIST's Itanagar branch were present at the meeting.

Published in:
[The Arunchal Times](#)

CSIR-NML

8th June, 2018

एनएमएल में 105 यूनिट रक्त संग्रह



जमशेदपुर। राष्ट्रीय धातुकर्म प्रयोगशाला जमशेदपुर में गुरुवार को रक्तदान शिविर का आयोजन किया गया। इसमें 105 यूनिट रक्त संग्रह हुआ। प्रयोगशाला के निदेशक डॉ. इंद्रनील चट्टोराज ने कहा कि एनएमएल स्टाफ क्लब द्वारा सामाजिक हित की दिशा में किया जा रहा यह प्रयास सराहनीय है तथा भविष्य में भी इस तरह के आयोजन किए जाने चाहिए। शिविर के आयोजन में एनएमएल स्टाफ क्लब के टीके भट्टाचार्जी, परमार्थ सुमन, वेद प्रकाश, मो. नईमुद्दीन अंसारी, डॉ. शर्मिष्ठा ने योगदान दिया।

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Dainik Bhaskar

Need to research on bacteria that degrades plastic: Scientist

CSIR-NEERI

6th June, 2018

At a talk delivered largely for an audience comprising kids, senior principal scientist of CSIR-Neeri, Dr Atya Kapley, underlined the importance of avoiding plastic and saving water. Dr Kapley's talk on 'Harnessing Microbial community Intelligence for Environment Clean up' was held at Raman Science Centre on Tuesday as part of World Environment Day celebrations.

“We need to save as well as treat our water. In foreign countries, people drink water from tap but in our country, we prefer buying bottles. By throwing plastic in water bodies, we are making life for water animals difficult,” she said. “If somebody were to dirty our house, we would scream at them. But animals don't have that option. Several animals die after eating plastic. Industrial waste and sewage degrade our ecosystem, killing its animals and fish,” she said. Plastic doesn't degrade because it is a polymer — made up of a complicated chain. Plastic remains in the system for a long time. A plastic cup lasts 50 years before degrading, and a plastic bottle takes 450 years.

“Researchers in Japan found bacteria that degrades plastic near a plastic bottling factory. It is the first country in the world to do so. We too need to work towards finding such bacteria for plastic degradation. Just how Human Genome Projects map human DNA and studies its sequence, study of bacteria sequence is also possible,” she said.

“Can we reverse the process by cleaning land at water? We try to work on such projects at Neeri,” the scientist told children. There are two types of bacteria — good and bad. The bad bacteria, called pathogens, is found from dirt and is responsible for causing diseases like tuberculosis and infections.

“Not all plastics are bad. Plastic came into being because we did not have a system of full-proof storage. High density plastic is good as it does not diffuse chemicals. But styrofoam cups, straws and plastic bags are spoiling our ecosystem and biodegradable plastics are a good solution,” said Dr Kapley. The ancestors of modern bacteria were unicellular micro-organisms that were the first forms of life to appear on earth about 4 billion years ago. For about three billion years, most organisms were microscopic, and bacteria were the dominant forms of life.

Dr Kapley concluded the lecture by telling children that, as citizens, we should take responsibility of our environment.

Published in:
[Times of India](#)

Plastic ban not enough to solve plastic pollution, says Jashnani

CSIR-NEERI

6th June, 2018



Nagpur: CSIR-National Environmental Engineering Research Institute (CSIR-NEERI) celebrated the World Environment Day (WED) on 5th June, 2018. The brainstorming session on 'Beat Plastic Pollution: Myth & Reality' aligning with this year's WED theme was organised on this occasion. Shri Ravi Jashnani, President, Maharashtra Plastic Manufacturers' Association was the Chief Guest on this occasion. Dr. Rakesh Kumar, Director, CSIR-NEERI, Dr. J.S. Pandey, Chief Scientist, CSIR-NEERI, Dr. Mahua Saha, Sr. Scientist, CSIR-National Institute of Oceanography (CSIR-NIO), Goa were also present on this occasion.

While addressing the audience, Shri Jashnani said that the plastic ban recently legislated by Maharashtra Government is not enough to solve plastic pollution, instead there should have been more focus on plastic management. According to Maharashtra Plastic and Thermocol Products Notification 2018 initially passed by the Government of Maharashtra, plastic bags, cutlery and thermocol are banned, he added. He stated that when the concern was raised by plastic traders and manufacturers over the plastic ban the Maharashtra Government diluted the plastic ban by excluding small PET and PETE bottles with a carrying capacity of less than half a litre. Shri Jashnani said that still this is not enough, as food processing industry, mahila grih udyog and garment industry are severely affected due to the plastic ban. The plastic industries have started to shift outside Maharashtra, he added. Shri Jashnani said that out of the total solid waste plastic waste occupies only one percent. He revealed that whole issue of

plastic pollution lies in the segregation of solid waste. There should be a brainstorming on how the process of segregation of dry waste can effectively be implemented by involving all stakeholders. There should be a penalty on the person if fails to do proper waste segregation. He exhorted that there is a need to educate the masses for waste segregation through which plastic could be managed efficiently. Speaking on 'plastic impact on ocean life', the invited speaker Dr. Mahua Saha said that 60-85% of marine waste consists plastic. She informed that the pollution caused by microplastics in seas is of growing environmental concern due to their slow degradability and biological ingestion by aquatic living organisms. She stated that India currently ranks 12th in the list of the countries where plastic is not being properly managed. If further steps not taken in India, by 2020 India may rank 5th in the list in terms of plastic mismanagement, she added. She further informed that CSIR-NIO has undertaken research activities on microplastics. Dr. A.N. Vaidya, Chief Scientist, CSIR-NEERI delivered a lecture on 'plastic waste management: Policies and challenges'. He compared all the plastic waste management rules enacted in 2011, 2016 and 2018. He stated that Maharashtra Plastic and Thermocol Products Notification 2018 is more clear, precise and stringent than earlier rules. The principles of recycling and Extended Producer Responsibility (EPR) are more precisely defined in the recently enacted rules, he added.

Earlier, in his welcome address, Dr. Rakesh Kumar, Director, CSIR-NEERI said that there is a need to do life cycle assessment for evaluating environmental impacts of plastic waste management systems. We need to remove misconceptions about plastic, and ensure at least 20-30 times reuse of plastics. Dr. J.S. Pandey, Chief Scientist, CSIR-NEERI introduced the Chief Guest. Dr. (Mrs) Rima Biswas, Sr. Scientist, CSIR-NEERI conducted the proceedings.

Published in:
[Nagpur News](#)

CSIR-IITR

6th June, 2018

आईआईटीआर के सर्वेक्षण में वैज्ञानिकों को लेड और निकिल जैसी नुकसानदेह धातुएं मिली हैं

शहर की हवा में घुले जहरीले तत्व

हवा में घुला
जहर



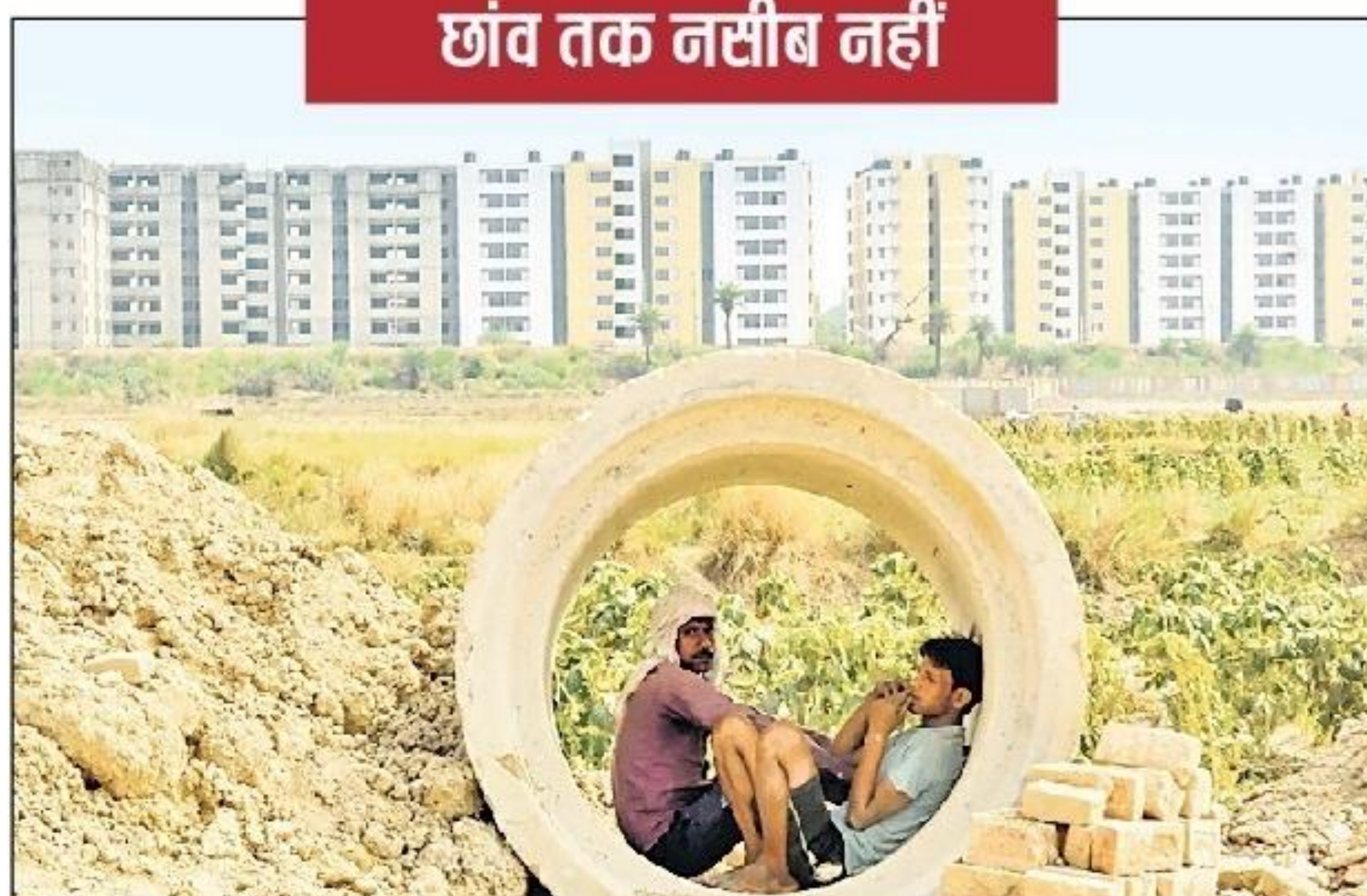
लखनऊ | प्रमुख संवाददाता

राजधानी की आबोहवा में कई जहरीले कण घुले हुए हैं। भारतीय विष विज्ञान अनुसंधान संस्थान (आईआईटीआर) के वैज्ञानिकों की सर्वेक्षण रिपोर्ट चौंकाने वाली है। सर्वेक्षण में शहर की हवा में वैज्ञानिकों को लेड व निकिल जैसी नुकसान दायक धातुएं मिली हैं। हालांकि अभी इनकी मात्रा खतरनाक स्थिति में नहीं पहुंची हैं। लेकिन समय पर नहीं चेता गया तो इनके खतरनाक होने में ज्यादा वक्त नहीं लगेगा। वैज्ञानिकों ने इन्हें रोकने के लिए सुझाव भी दिए हैं।

आईआईटीआर ने प्रदूषण के सम्बंध में अपनी प्री मानसून रिपोर्ट चार जून को जारी कर दी है। रिपोर्ट के मुताबिक शहर की आबोहवा साल दर साल लगातार खराब होती जा रही है। इसमें कोई सुधार नहीं हो रहा है। इस बार भी इन्दिरानगर जैसी वीआईपी कॉलोनी सबसे ज्यादा प्रदूषित मिली है। यहां पीएम 10 की मात्रा सबसे ज्यादा है।

अलीगंज, विकास नगर, गोमतीनगर, चौक तथा आलमबाग की हवा भी पिछले वर्ष की तुलना में ज्यादा जहरीली हुई है। इन्दिरानगर में जहां पिछले साल हवा में घूमने वाले कणों पार्टिकुलेट मैटर (पीएम 10) की मात्रा 240.8 थी

छांव तक नसीब नहीं



शहर में पेड़ों की कमी की वजह से लोग छांव के लिए तरस रहे हैं। बढ़ते प्रदूषण का सबसे बड़ा कारण शहर में पेड़ों की घटती संख्या भी है।

वहीं इस साल यह बढ़कर 296.8 हो गयी है। इसी तरह विकास नगर में भी पीएम 10 की मात्रा 193.6 से बढ़कर 271.3 हो गयी है। अलीगंज में 228.7 से बढ़कर 264.4 तथा गोमतीनगर में 231.4 से बढ़कर 239 हो गया है। इसके अलावा हवा में लेड व निकिल की मात्रा भी बढ़ी है। हालांकि अभी यह खतरनाक स्तर से ज्यादा नहीं हुई हैं। हवा में घुली यह धातुएं भी जीवन को प्रभावित कर रही हैं। कई बड़ी बीमारियों का कारण बन रही हैं।

आवासीय से ज्यादा शुद्ध मिली व्यावसायिक क्षेत्रों की हवा: शहर के आवासीय क्षेत्रों से ज्यादा शुद्ध हवा व्यावसायिक क्षेत्रों की मिली है। वैज्ञानिकों ने आवासीय क्षेत्र अलीगंज, विकासनगर, इन्दिरानगर तथा गोमतीनगर तथा व्यावसायिक क्षेत्रों

पीएम 10 के साथ हवा में घुली लेड व निकिल की मात्रा

स्थान	लेड	निकिल
अलीगंज	31.35	5.98
विकासनगर	45.38	8.05
इन्दिरानगर	44.52	9.25
गोमतीनगर	43.98	11.93
चारबाग	36.36	14.18
आलमबाग	39.54	10.40
अमीनाबाद	40.19	6.61
चौक	113.90	10.62
अमौसी	47.84	9.52

(आंकड़े नैनो ग्राम प्रति घन मीटर में)



सेहत के लिए नुकसानदेह

लेड की अधिक मात्रा से दिमाग संबंधी बीमारी का खतरा

आबोहवा में जहरीली हवा से तमाम तरह की बीमारी हो सकती है। केजीएमयू पल्मोनरी मेडिसिन विभाग के पूर्व अध्यक्ष डॉ. राजेंद्र प्रसाद ने बताया कि प्रदूषित हवा सांस के जरिए शरीर में दाखिल होती है। इससे फेफड़े से संबंधित बीमारी होने का खतरा बढ़ जाता है। लेड की वजह से दिमाग संबंधी बीमारी हो सकती है। दिल का रोग भी हो सकता है। उन्होंने बताया कि प्रदूषित हवा से फेफड़े के कैंसर का खतरा भी बढ़ जाता है। आंखों से संबंधित बीमारी भी बढ़ जाती है। मरीज को सांस लेने में तकलीफ होती है। प्रदूषण का स्तर अधिक होने से फेफड़े खराब तक हो सकते हैं।



खून की नली में पहुंच जाते हैं छोटे कण

सांस की बीमारी का खतरा बढ़ जाता है। धूल के जो कण शरीर में प्रवेश करते हैं, वह कई प्रदूषित स्थानों से होकर गुजरते हैं। उन स्थानों पर जिस तरह का संक्रमण होगा, शरीर में पहुंचकर उसी तरह का संक्रमण पैदा कर सकते हैं। सबसे खतरनाक पीएम 2.5 कणों का बढ़ना माना जा रहा है। ये कण इतने छोटे होते हैं, कि सांस की नली के माध्यम से खून की नली में भी पहुंच जाते हैं और गंभीर बीमारी पैदा कर देते हैं।

क्या है पीएम 10 व 2.5

हवा में घूमने वाले कणों को पार्टिकुलेट मैटर (पीएम) कहते हैं। बड़े कण को पीएम 10 व महीन कण को पीएम 2.5 की श्रेणी में बांटा गया है। शहर के विभिन्न इलाकों में आईआईटीआर एक उपकरण रखता है। एक समय सीमा में जितने कण इकट्ठा होते हैं, उनकी माप की जाती है। उसके बाद प्रति घन मीटर के हिसाब से कणों की मात्रा निकाली जाती है।

वैज्ञानिक बोले

“वायु प्रदूषण से काफी गंभीर बीमारियां होती हैं। आईआईटीआर ने सर्वेक्षण के बाद अपनी रिपोर्ट जारी की है। वायु प्रदूषण रोकने के लिए क्या क्या उपाय किए जाएं इसके बारे में भी रिपोर्ट में उल्लेख किया गया है। वायु प्रदूषण सबसे ज्यादा गाड़ियों से होता है। इसे रोकना होगा।

डॉ. एससी वर्मन, वरिष्ठ वैज्ञानिक आईआईटीआर

“शहर में बिल्डिंग का काफी निर्माण हो रहा है। मेट्रो का भी काम चल रहा है। इसकी वजह से भी प्रदूषण का स्तर बढ़ा है। इसे रोकने के लिए निर्माण स्थलों के आस पास रोजाना पानी का छिड़काव किया जाना चाहिए। शहर में कम से कम गाड़ियां आएँ इसकी व्यवस्था करनी चाहिए।

डॉ. राम करन, क्षेत्रीय अधिकारी, उत्तर प्रदेश प्रदूषण नियंत्रण बोर्ड

में पीएम 10 व पीएम 2.5 की मात्रा काफी कम मिली है।

अमौसी औद्योगिक क्षेत्र में पीएम 10 की मात्रा 232.2 मिली है। जबकि पीएम 2.5 की मात्रा अधिकतम 112.4 ही मिली है।

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Hindustan

CSIR-IITR

6th June, 2018

Grammy winner stresses on power of music

PIONEER NEWS SERVICE ■ LUCKNOW

Grammy Award winning music composer and adjunct professor, National Institute of Advanced Studies, Bengaluru, Ricky Kej, said here on Tuesday that music was a powerful language not just for communicating a message but for retaining it deep in the consciousness of a listener.

Kej said that he believed that music and nature were one and the same thing and that he had dedicated his entire life in creating environmental consciousness and increasing awareness about climate change through his music which was emphasised in his talk, 'Music for the Planet.' CSIR-IITR celebrated World Environment Day on Tuesday with a session with Kej. As a part of the Environment Day celebrations, IITR organised the Dr CR Krishnamurti Memorial Oration in honour of the second director of the institute. This year, the lecture, 22nd in the series, was delivered by Kej.

In his presidential address, he said that Indian culture and caring for the environment were integral to one another. "Invoking the five elements of nature is a part of our daily routine and no event or occasion is complete without praying for peace and harmo-



Ricky Kej and others along with winners of painting competition at IITR

ny for the entire universe," said Ricky.

Welcoming the gathering, IITR director Alok Dhawan said that it was indeed a unique opportunity for them to host the Grammy winner who had brought together artistes from around the globe to amalgamate music and

nature to work towards environment conservation. NASI senior scientist and former IITR director PK Seth presided over the function. Prize winners of a painting competition for school children, conducted in the preceding week, were felicitated.

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The Pioneer

Even educated unaware about proper use of antibiotics: survey

CSIR-NCL



A new survey has revealed that not just illiterate but even educated people are not aware about proper use of antibiotics and dangers of antibiotic resistance. Scientists at Pune-based National Chemical Laboratory conducted the survey with a select group of 504 persons covering all strata sections of society. Nearly half (47%) of the people were unaware of the difference between over-the-counter drugs and antibiotics. One in four believed that dose-skipping does not contribute to antibiotic resistance, while one in ten practiced self medication. One in five bought medicines without prescription or started an antibiotic course by merely

5th June, 2018

calling a doctor without proper medical examination, according to results of the survey published in journal Current Science. Further, more than half of the postgraduates surveyed were not aware that there was a red line on the medicine strips and this indicates that it is a prescription drug and its over-the-counter sale is not allowed. The situation was worse among less educated respondents – 71% undergraduates and 58.5% graduates were ignorant about the ‘red line’ introduced on antibiotic strips.

Among Illiterates, none had any idea about the significance of the red line or for that matter specificity of antibiotics towards bacterial infection. They neither could differentiate between on the counter sale drugs and antibiotics, nor were they aware of antibiotic resistance. They could not differentiate between viral and bacterial infections and were unaware of the fact that antibiotics are not used to cure viral infections. Many respondents were also ignorant about the need to check expiry date on antibiotic strips.

Excessive antibiotic usage and skipping of prescribed antibiotic dose are major reasons for pathogens developing resistance to antibiotics. But a majority of people tended to skip the dose and even stop the prescribed course once they felt better. The survey indicates that educated population is the highest consumers of antibiotics and self medication on regular basis was observed in this group.

“The survey results underline the fact that there is a need to educate people about antibiotic usage, disposal and dangers of irrational use,” said Dr. Anu Raghunathan, who conducted the survey along with her colleague Dr. Deepanwita Banerjee.

“There is a need to implement an educational and public awareness programs and to administer appropriate antibiotic control policies which can prohibit availability of drugs without a medical prescription,” Dr Raghunathan told India Science Wire.

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[Business Line](#)

CSIR-NEERI to hold various programmes to mark World Environment Day on June 5

CSIR-NEERI

4th June, 2018

CSIR-National Environmental Engineering Research Institute (CSIR-NEERI) will celebrate World Environment Day on June 5 by organising various programmes. The theme of this year's World Environment Day is 'Beat Plastic Pollution'.

The brainstorming session on 'Beat Plastic Pollution: Myth & Reality' has been organised in the NEERI Auditorium between 10.30 am and 1.30 pm on June 5. The chief guest Vijay Merchant, former President, Indian Plastics Institute & All India Plastic Manufacturers' Association and the guest of honour Ravi Jashnani, President, Maharashtra Plastic Manufacturers' Association, will address the audience. Dr. (Ms.) Mahua Saha, Sr. Scientist, CSIR-National Institute of Oceanography (CSIR-NIO), Goa, will deliver a lecture on 'Microplastics' and Dr. A.N. Vaidya, Chief Scientist, CSIR-NEERI on 'Environmental Policies'. According to Dr Rakesh Kumar, Director, CSIR-NEERI, the Institute celebrates World Environment Day every year and takes up initiatives in R&D in the field of Environmental Science & Engineering to provide sustainable technological solutions to Government, Industry and Society for various environmental problems.

Film Festival:

A film festival is jointly being organised by CSIR-NEERI and Cine Montage on June 4 and 6 in the NEERI Auditorium. Two environmental films will be screened on each day from 4.30 p.m. On June 4 at 4.30 pm, a short film 'If a Tree Falls' will be screened and at 6.30 pm, 'Himalaya' will be screened. On June 6, 2018, at 4.30 pm 'Planet Ocean' and at 6.30 pm, 'Even the Rain' will be screened. The interested ones from general public, including students, can watch these environmental films.

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[Nagpur Today](#)

On Parkinson's Trail

CSIR-IICB

3rd June, 2018

Scientists at a Kolkata institute find new clues to its cause

Despite research spread over decades, scientists are yet to figure out the cause for Parkinson's disease, a neurodegenerative disorder. One thing is clear: the aggregation of a protein called alpha-synuclein plays a key role in development of the disease. The aggregation pathway of this protein is the subject of intense research and studies so far have focussed on protein aggregates, called amyloid fibrils, which form late in the aggregation pathway.

Researchers at the CSIR-Indian Institute of Chemical Biology (CSIR-IICB), Kolkata, have now proposed that alpha-synuclein oligomers that come into the picture early in the aggregation pathway could be responsible for the development of Parkinson's.

They used two amino acids to conduct their study in live neuroblastoma cells. The first one was glutamate, which happens to assist the formation of amyloid fibrils by facilitating generation of early oligomers. The second one was arginine, which inhibits amyloid fibril formation by inducing a large change in the shape of the native protein.

The study has shown that it is possible to monitor early events of the aggregation pathway when the native protein fluctuates in its monomeric states or when it forms early oligomeric molecules by using a combination of conventional methods and spectroscopy at the single molecule level. "We have shown that it is possible to monitor and understand the early events in aggregation. It gives us hope that a therapeutic molecule may be possible against early oligomeric molecules," says Dr. Krishnananda Chattopadhyay, leader of the research team.

“The study establishes that glutamate acts as a facilitator and arginine acts as an inhibitor of the late stage of alpha synuclein aggregation. However, it is not clear if the observed effect is because of other cellular changes due to the addition of these molecules or direct interaction of these molecules with alpha-synuclein. The mechanism of internalisation and interaction of these molecules with alpha-synuclein needs to be better understood. It will also be challenging to understand how one can transform this knowledge for drug development for a complex disease such as Parkinson’s,” says Dr. Samir K. Maji of IIT Bombay, who was not connected with the study.

Other researchers in the study included Sumanta Ghosh and Amrita Kundu of the CSIR-IICB. The research results have been published in the journal, *Scientific Reports*, and the work was funded by the Department of Science and Technology, Government of India.

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[The Hindu](#)

CSIR Aroma Mission reaches Gurez

CSIR-IIIM

3rd June, 2018

The programme was jointly organized by CSIR Indian Institute of Integrative Medicine, Jammu, KVK Bandipore and MARES of SKUAST-Kashmir.

Awareness cum orientation programme regarding cultivation, processing and post harvest management of different aromatic cash crops under CSIR Aroma Mission was organised in Gurez valley of Bandipora district.

According to a statement, a large number of farmers from different villages of Gurez were informed about the opportunities and benefits for income generation and livelihood enhancement through cultivation of the target crops under the mission like lavender, mints, tagetus minuta etc.

The programme was jointly organized by CSIR Indian Institute of Integrative Medicine, Jammu, KVK Bandipore and MARES of SKUAST-Kashmir.

Present on the occasion were Dr MH Samoon, Programme Coordinator KVK Bandipore, Dr Shahid Rasool, Coordinator Aroma Mission SKUAST Kashmir, Dr M Anwar Khan, Incharge MARES, Gurez and Scientists of KVK and MARES.

Published in:
[Greater Kashmir](#)

Gurupriya audit team arrives

CSIR-CRRI



Malkangiri: The seven-member team of the Central Road Research Institute (CRRI) reached Malkangiri district on Wednesday to begin their three-day audit of Gurupriya bridge that will connect 151 cut-off villages with the mainland in the district. "The quality and safety aspects of the bridge will be audited. The materials used in the construction of the bridge will also be examined," said G.K. Sahoo, a member of the audit team. The bridge would be thrown open for public after the CRRI team submits its final report to the state government.

1st June, 2018

"Trial run of vehicles is being done on the bridge and there is no problem in plying of heavy vehicles. However, if any defect is found during the inspection, such faults will be rectified at the earliest," said Arun Kumar Sahu, executive engineer, public works department, Malkangiri. The state government had requested the Council of Scientific and Industrial Research (CSIR) to conduct a third-party quality audit of the bridge. "The CSIR had agreed to conduct the audit at a cost of Rs 38.56 lakh and 50 per cent of the amount has already been given to the CSIR. The remaining amount will be paid after submission of the final audit report by the CRRI," said Sahu. Work for the 910-metre-long bridge connecting Janbai North with Janbai South started in 2015 with an estimated project cost of Rs 172.58 crore. The bridge will be a lifeline for around 30,000 villagers residing across the Balimela reservoir whose only mode of connecting with outer world at present is country boat. This land is so remote that it is officially called as the "cut-off area".

Though the bridge assumes significance for the development of the region, the Maoists active in the area had successfully stalled its work as they felt that construction of the bridge would hampering their activities in the region.

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[Telegraph India](#)

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