

# CSIR IN MEDIA



**CSIR**

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## **‘Lavender Cultivation’ Under CSIR-IIIM’s Aroma Mission To Be Started In Ramban As A Part Of Purple Revolution**

CSIR-IIIM

20<sup>th</sup> February, 2022

New Delhi: Union Minister of State (Independent Charge) Science & Technology, Minister of State Independent Charge) Earth Sciences; MoS PMO, Personnel, Public Grievances, Pensions, Atomic Energy and Space, Dr Jitendra Singh today said that the elected representatives are the key players in defining the priority areas for development in their jurisdiction. He said that not only are



they accountable to people for the developmental initiatives locally but also play an important role in highlight the lacuna in implementation in various schemes thus acting as a bridge between people and administration. He said this while chairing the District Development Coordination & Monitoring Committee (DISHA) Meeting for Ramban District at Convention Centre Jammu today.

A key decision taken during the meeting was to commence Purple Revolution in Ramban District by encouraging ‘Lavender Cultivation under the CSIR-IIIM’s Aroma Mission through Ministry of Science and Technology on the lines of Doda and Reasi districts. Dr Singh made the announcement at the DISHA Meeting today while adding that since similar climatic and geographic conditions exist in Doda and Ramban, Lavender cultivation can be started Ramban to increase income sources for the youth of the district. Citing examples of Baderwah and Khilani in Doda District and certain areas in upper reached of Reasi,

Dr Singh said that over 500 youth had taken benefit from the purple revolution and augmented their income many-fold. Among many such success stories, Dr Singh mentioned that there were even some of the Engineering graduates had given up their jobs and taken to



lavender cultivation which offers a lucrative avenue and is fetching the youth with appreciable profits. Since Ramban too had similar potential for Lavender cultivation under Ministry of Science and Technology's AROMA mission, he said, it will help in providing means of livelihood to budding farmers and agri-entrepreneurs and give a boost to Start-Up India campaign and promoting a spirit of entrepreneurship in the region.

Dr Singh while reviewing the functioning of various Central Government Schemes mentioned that the DISHA platform gave an opportunity to elected representatives and executive to work together on various developmental issues for larger public interest. He said Prime Minister Narendra Modi has started very effective and well conceptualized schemes and to take full benefit of these schemes it was important to being to fore the loopholes or problems in implementation so that timely solutions can be worked out and projects may achieve the intended deadlines.

While listening to various suggestions of the PRI members and representatives of various inaccessible Panchayats and Blocks of Ramban District Dr Singh said that the district had a treacherous and hostile topography making the task of reaching out to the 'last man' very daunting. However, he said that the Government was resolved to face the challenge. He said that the Government was committed to provide the benefit of the schemes like PMAY, PMGSY, MGNREGA to the people living in the far off panchayats and blocks of Ramban and other difficult areas of Jammu & Kashmir. Dr Singh also lauded the efforts of district administration and PRI members for good performance in schemes like PM Kisan Nidhi, Schemes in Rural Development sector. He urged the officials of various departments to work in coordination with the PRI members and creating SOPs for better coordination and synergy so that the goal of Inclusive development can be achieved.



## CSIR-CLRI undertakes foot sizing survey in Longleng

CSIR-CLRI

20<sup>th</sup> February, 2022

Longleng, February 20 (MExN): As a part of project to develop the 'Indian National Footwear Sizing System,' the CSIR-Central Leather Research Institute (CSIR-CLRI) carried out foot sizing measurements in Longleng from February 8 to 10 for 4-55 years age group. A CSIR-CLRI team successfully took the measurement from Phom Lemphong School, Bautung Government Higher Secondary School, Yingli College and Phom Baptist Christian Association (PBCA), Longleng, Nagaland, informed a press release.



Shayung Phom, the Deputy Commissioner of Longleng who inaugurated the measurements survey also participated in event.

### Why Indian National Footwear Sizing System?

As per a press release, the Government of India (GoI) has embarked upon a project to develop an Indian National Footwear Sizing System as the country lack one and currently the UK Foot Sizing Standards are being used.

Any footwear adapted from other sizing systems cannot produce comfortable footwear for India's population owing to differences in foot characteristics necessitating for development of a own sizing system, it said. To achieve this, it is necessary to conduct an anthropometric foot measurement survey across India to capture the foot dimensions and then statistically arrive at the footwear sizing system, it noted.



Accordingly, the Department for Promotion of Industry and Internal Trade (DPIIT) under the Union Ministry of Commerce and Industry has nominated CSIR-CLRI to lead the project of developing an 'Indian National Footwear Sizing System' along with leading Institutes from across the country as its synergy partners, the release added.



## NIT Jamshedpur gets student chapter of Indian Ceramic Society

CSIR-NML, CGCRI

20<sup>th</sup> February, 2022

The Indian Ceramic Society opened a student chapter at National Institute of Technology (NIT) Jamshedpur on February 19. A one-day virtual workshop on Advanced Ceramics was held on the occasion. The webinar was aimed at creating awareness on progress in the area of Advanced Ceramics. “Ceramic science and technology need to be added to the technical education system as ceramic products have



entered into different strategic sectors and the country needs an expert in this area. The student chapter of the society will create a forum for deliberation/discussion in this area,” said a spokesperson of the Adityapur-based NIT Jamshedpur.

Indranil Chatteraj, director of the Council of Scientific and Industrial Research (CSIR) National Metallurgical Laboratory (NML), Jamshedpur, was the chief guest at the event. He stressed the need to create an expert in this area to solve problems. Suman Kumari Mishra, the director of CSIR-Central Glass and Ceramic Research Institute (CGCRI), Calcutta, and the guest of honour, applauded the efforts taken by NIT Jamshedpur to increase awareness of this field.

L.K. Sharma, the president of the Indian Ceramic Society, declared the opening of the chapter. NIT Jamshedpur director Karunesh Kumar Shukla, in his welcome address, appealed to all stakeholders of the institute to make the most of the discussion.

K. Muraleedharan, the immediate past president of the Indian Ceramic Society; R.V. Sharma, the deputy director NIT Jamshedpur; and Subash Singh the convener of the event; also



attended the webinar. The programme was compered by Bharat Bhushan Jha, visiting faculty and the technical advisor of the event.

Sanjay Kumar from CSIR-NML Jamshedpur, Atanu Pal from Tata Steel, B.B. Jha from NIT Jamshedpur, Prasanta Panigrahi from Tata Steel, Sitendu Mandal from CSIR-CGCRI Calcutta spoke on various aspects of glass and ceramics.

The event ended with a panel discussion by experts in this field. About 250 participants attended the deliberations in hybrid mode. Dignitaries from NIT Jamshedpur and Indian Ceramic Society released a souvenir.



## **IIT Madras researchers to identify new housing tech, help bring down construction costs**

CSIR-NEIST

20<sup>th</sup> February, 2022

New Delhi: The Indian Institute of Technology (IIT), Madras is hosting a housing incubator, 'ASHA', to identify and support new innovative housing technologies, bring down the cost of construction in India and support start-ups in scaling up their ideas. The 'Accelerator Affordable Sustainable Housing Accelerators' is an initiative of the Ministry of Housing and Urban Affairs to provide incubation and acceleration support to potential future technologies that are not yet market-ready (pre-prototype applicants) or to the technologies that are market-ready (post-prototype applicants).

According to officials, the incubator has already supported a couple of start-ups including Tvasta, which constructed India's first 3D-printed house as well as the first 3D-printed doffing unit used by COVID-19 frontline healthcare workers to safely remove PPEs. The key objectives of 'ASHA' incubator include identification of technologies, providing technical support to innovative ideas, business support and mentoring on the financial viability of innovative ideas and infrastructure support.

"The key parameter would be the impact of the technologies identified and how many housing units are constructed through the technologies supported by ASHA. Business success would be the key focus of IIT Madras. Success will be measured in terms of scaling up and output in terms of millions of housing units constructed through ASHA-supported technologies," said Meher Prasad, professor at IIT Madras' Department of Civil Engineering.

Another firm supported by ASHA-IIT Madras is Slab Engineering that is engaged in 3D volumetric precast development. The company will be working with IIT Madras to refine its designs and to develop standards and specifications so that the adoption of its products can be enabled.



ASHA-India centres, which will also help in developing design guidelines, construction manuals and other necessary guidelines relevant for the effective use of such technologies in the region, have been set up at five institutions -- four IITs (Madras, Kharagpur, Bombay and Roorkee) and CSIR-NEIST, Jorhat.

Shailesh Kr Agrawal, executive director, Building Materials and Technology Promotion Council (BMTPC), Ministry of Housing and Urban Affairs, said, "The Ministry under technology sub-mission of PMAY-U is running the ASHA initiative where upcoming Indian individuals or technology ventures in the housing sector are being nurtured in their start-up phase by providing all the support necessary to help entrepreneurs translating innovations into products and services that are commercially viable."



## Himachal begins pearls cultivation

CSIR-IHBT

19<sup>th</sup> February, 2022

PALAMPUR: Besides cultivating heeng, saffron, monk fruit and cinnamon, the Council of Scientific and Industrial Research (CSIR)-Institute of Himalayan Bioresource Technology (CSIR-IHBT) has initiated the cultivation of pearls integrated with aquaculture in Himachal Pradesh.

Dr Sanjay Kumar, Director, CSIR-IHBT informed that CSIR-IHBT had initiated research and development activity on pearl culture utilizing fresh water mussels with an aim to promote its cultivation through trainings and skill development, and facilitate farmers, entrepreneurs and startups in this high income generating venture.

Kumar informed that Lok Nath Sharma, minister for the department of agriculture, horticulture and animal husbandry, Sikkim had visited the CSIR-IHBT and showed keen interest to establish a CSIR-IHBT centre in Sikkim for fast deployment of relevant technologies, training and skill development to strengthen their ongoing development programmes for the benefit of people of Sikkim.

Dr Shashi Bhusan, principal scientist, CSIR-IHBT informed “We have the plans to disseminate the research and related information on pearl culturing to interested people through trainings, demonstrations and skill development programmes to motivate and facilitate them to adopt fresh water pearl culturing as an alternative source of income”.

He further informed that apart from pearl culturing, efforts would be made on conservation strategies for economically important fresh water mussels by conducting collaborative work with the line departments, NGOs and interested researchers.

Kumar said CSIR-IHBT was closely working with North-East states by developing clusters



for the production of vitamin D2 enriched shiitake mushroom and vermicomposting under Scheme of Fund for Regeneration of Traditional Industries (SFURTI), anaerobic Biogas plant installation through the Department of Science & Technology (DST) - Waste Management Technologies (WMT) and establishment of essential oil processing unit under the CSIR Aroma mission. Eom



## CSIO, Punjabi University sign pact

CSIR-CSIO

19<sup>th</sup> February, 2022

Central Scientific Instruments Organisation (CSIO) here entered into a memorandum of understanding (MoU) with Punjabi University, Patiala, today to synergise efforts and resources for scientific research. It was signed by Prof Anantha Ramakrishna, Director of CSIO, and Prof Arvind, Vice-Chancellor, Punjabi University.

According to Prof Arvind, the MoU will facilitate exchange of students for internships as well as for undergraduate, postgraduate and doctoral thesis, and provide a suitable platform for collaborative research leading to turnkey solutions in core sectors.

The CSIO is engaged in undertaking research, design and development of scientific and industrial instruments and is also a participating lab for MTech and PhD programmes besides running skill development programmes.



## NITI Aayog suggests production of vanadium for steel industry to support import substitution

CSIR-NML

19<sup>th</sup> February, 2022

New Delhi, Feb 19 (KNN) To support import substitution, India must transit from the R&D stage to production of vanadium domestically for the steel industry, said R Saravanabhavan, Deputy Advisor, NITI Aayog.

He was addressing the Webinar ‘Vanadium Usage in Indian Steel Industry’, organized by FICCI jointly with SRTMI.



“India is a significant consumer of vanadium but is not a primary producer of the strategic metal. It is recovered as a by-product from the slag,” he added. Highlighting upon the importance of vanadium for the steel industry, he said that India consumes appx 4-5 per cent of the vanadium produced globally, with China accounting for 44-45 per cent of the consumption.

Parmjeet Singh, Additional Industrial Advisor, Ministry of Steel, spoke about the value chain of vanadium usage in steel industry from availability and sourcing of vanadium, production of ferrovanadium and alloying. Singh also highlighted that vanadium micro-alloyed high strength rebar is a safe, reliable and cost-effective solution for concrete construction in earthquake prone regions, thus serving the society at large.

VR Sharma, Co-Chair, FICCI Steel Committee and Managing Director, Jindal Steel & Power Ltd., while pressing upon the importance and benefits of vanadium for the steel sector he mentioned, “Vanadium finds increased usage in plate manufacturing & various forging applications and have an important role in steel alloying for high strength and toughness



applications." He also focused on the need for reducing cost and increasing value preposition for enhancing vanadium usage in the sector.

Pankaj Satija, Co-Chair, FICCI Mining Committee and Managing Director, Tata Steel Mining Ltd said that by 2025, 85 per cent of automobiles would have vanadium alloyed steel.

The webinar also had participation of prominent industry players and experts including Dr. Mukesh Kumar, Director, SRTMI, S Narahari Prasad, Assistant General Manager, Midhani Ltd, Devasish Mishra, Executive Vice-President, JSW Steel Ltd, Prakash Tatia, Director, Welspun Specialty Solutions Ltd, Dr. Anil Dhawan, Executive Director, Alloy Steel Producers Association of India, K K Bariar, Advisor (QC), Sunflag Iron & Steel Co Ltd, Dr. Sandip Ghosh Chowdhury, Scientist G, Head Material Science and Technology Division, CSIR-NML and David N Crowther, Technical Consultant, Vanitec Pvt Ltd.



## CIMAP dir selected for prestigious fellowship

CSIR-CIMAP

18<sup>th</sup> February, 2022

Lucknow: Central Institute of Medicinal and Aromatic Plants (CIMAP) director Prabod Kumar Trivedi has been selected for the prestigious JC Bose National Fellowship 2022.

Trivedi is the first CSIR-CIMAP scientist/director and amongst a select few Indian scientists to be awarded the fellowship by the department of science and technology. He has been selected for high-impact factor research work published in international journals and for his pioneering contribution in the area of plant sciences, especially elucidation and engineering of pathways related to important phytomolecules.

“It’s an honour for me to get a national level fellowship which is awarded to five or six scientists in the country. I aim to take CIMAP and science ahead and make an effort to ensure quality research work is done at the institute,” said Prabodh Trivedi.

“The fellowship, constituted by the Department of Science and Technology (DST), recognizes active, performing scientists and engineers in the country, for their outstanding performance and contributions, below the age of 60 years,” said CSIR-CIMAP spokesperson Manoj Semwal.



## ‘Ready to go green’, says IndiGo as its first-ever SAF aircraft takes off

CSIR-IIP

18<sup>th</sup> February, 2022

Budget airline carrier IndiGo shared the pictures of the first-ever aircraft utilising sustainable aviation fuel (SAF) on its Twitter handle. IndiGo also shared the screengrab of a flight navigation map showing its first ever SAF aircraft embarked on a flight from Toulouse to Delhi. IndiGo tweeted, “Fasten your seatbelts, [because] we’re ready to go green. Are you?”. “There’s a green streak in



the sky today. Can you spot our first ever SAF aircraft conquer the blue Indian skies,” the airline said in another tweet.

So, what is sustainable aviation fuel (SAF) that powers the latest IndiGo aircraft? The global aviation body IATA defines SAF as a “fuel that has the potential to generate lower carbon emissions than conventional kerosene on a life cycle basis.”

In December last year, IndiGo had inked an agreement with the Dehradun-based Council of Scientific and Industrial Research-Indian Institute of Petroleum (CSIR-IIP) to manufacture and deploy sustainable aviation fuel (SAF) globally.

IndiGo had said that it wanted to be an anchor partner to such institutes and oil refining companies in the future to address the carbon emissions issue and take a lead in demonstrating its commitment towards sustainable and responsible growth, news agency PTI reported.

Besides this, IndiGo is also working on fleet modernization, implementing weight reduction



measures on board, optimising flight routes, improving flight operations and following fuel-efficient best practices to reduce the consumption of aviation turbine fuel (ATF). The airline further added that it knows that SAF is not in mass production currently and that its commercial use is still a few years away.



## Inside story of making of Covaxin told

CSIR-CDRI

18<sup>th</sup> February, 2022

Lucknow: Trust, transparency, timeline and mutual respect was the key to success for the development of Covaxin in record time through a public-private partnership, said Prof Balram Bhargava, director general of Indian Council Of Medical Research and secretary, department of health research (Ministry of health & family welfare).

Delivering a lecture on 'Going Viral: Making of Covaxin, the inside story' at Central Drug Research Institute's 47th Sir Edward Mellanby Memorial Oration during the 71st annual day celebrations of CSIR-CDRI on Thursday, he said, "To combat the Covid-19 pandemic, Indian government followed Buddha's middle path for managing the lockdown, which was very balanced in nature, neither very stringent like China, nor very liberal like European countries." Bhargava added that with Covaxin we proved that we could manufacture vaccines from start to finish. This story is an inspiring example for the scientific world. On the occasion, the institute transferred the technology of a potential rapid fracture-healing drug to a private company based in Ahmedabad.



CSIR-CDRI

18<sup>th</sup> February, 2022

## Trust, transparency helped in developing Covaxin: ICMR DG

PNS ■ LUCKNOW

CDRI celebrated its 71st Annual Day on Thursday. On the occasion, the prestigious '47th Sir Edward Mellanby Memorial Oration' was delivered by Secretary, department of Health Research, (Ministry of Health & Family Welfare) and DG of ICMR Balram Bhargava. The topic of his talk was 'Going Viral: Making of Covaxin the Inside Story'.

"Trust, transparency, timeline and mutual respect resulted in manufacturing of Covaxin in record time through public-private partnership. To combat the Covid-19 pandemic, the government followed Buddha's middle path to manage lockdown. It was balanced in nature; neither very stringent like in China nor very liberal like in European countries. With Covaxin, we proved that we could manufacture vaccines from start to finish. This story is an inspiring example for the scientific world," he said.

Secretary of DSIR and DG of CSIR Shekhar C Mande greeted the team CSIR-CDRI on their Annual Day and showed his trust upon the commitment of staff for contribution in healthcare and pharmaceutical industry. Director of CSIR-CDRI D Srinivasa Reddy briefed the achievements of the institute in the past one year. The institute has licensed the *Dalbergia sissoo* - US patent (US 10,292,994,B2) to AVETA Biomics Inc, USA, for further development as a botanical drug for the treatment of Osteo-Health related disorders as per USFDA regulations.

Further, two of the promising investigational new drugs S007-867

(antithrombotic) and S007-1500 (fracture healing drug candidate) have been licensed to industry partners for further collaborative development.

"Phase-I clinical trials for both the INDs will be initiated shortly. The institute also has a rich pipeline of new leads and candidate drugs for different disease areas of national importance, including malaria, leishmaniasis, cancer, neuropathic pain, stroke, BPH, etc," he said.

Reddy announced a collaboration in the form of a licence agreement between CSIR-CDRI and Troikaa Pharmaceutical Pvt Ltd (Ahmedabad) to develop, manufacture and commercialise CSIR-CDRI's S007-1500 as a potential rapid fracture-healing agent. The collaboration aims to leverage CSIR-CDRI's drug discovery expertise and Troikaa's broad expertise in clinical development, manufacturing and commercialisation to speed up drug development programme.

Team leader Atul Goel and Divya Singh said that currently there is no oral treatment available for fractured bone healing. CSIR-CDRI has developed a novel small molecule S007-1500 (new chemical entity) as a rapid fracture-healing agent. The efficacy and safety of S007-1500 has been established by CSIR-CDRI in various animal models. CSIR-CDRI has received approval to conduct phase-I clinical trial from CDSCO.

The prestigious CDRI Awards-2022 for Excellence in Drug Research were also announced. These awards will be conferred on CSIR's Foundation Day in September later this year.



CSIR-CDRI

18<sup>th</sup> February, 2022

# कोविड से निपटने को बुद्ध के दिखाये मार्ग का अनुसरण : प्रो. बलराम

लखनऊ (एसएनबी)। कोविड-19 महामारी से निपटने तथा तालाबंदी के प्रबंधन के लिए भारत सरकार ने गौतम बुद्ध के मध्यम मार्ग का अनुसरण किया, जो प्रकृति में बहुत संतुलित था। यह न तो चीन की तरह बहुत सख्त था और न ही यूरोपीय देशों की तरह बहुत ही उदार। यह बात केन्द्रीय औषधि अनुसंधान संस्थान (सीडीआरआई) के 71वें वार्षिक दिवस समारोह में 'गोइंग वायरल : मेकिंग ऑफ कोवैक्सिन द इनसाइड स्टोरी' विषय पर 47वें सर मेलानबी व्याख्यान में स्वास्थ्य अनुसंधान विभाग के सचिव (स्वास्थ्य और परिवार कल्याण मंत्रालय) एवं आईसीएमआर के महानिदेशक प्रो. बलराम भार्गव ने कही।



उन्होंने कहा कि विश्वास, पारदर्शिता, समयबद्धता और पारस्परिक सम्मान सार्वजनिक-निजी भागीदारी के माध्यम से रिकॉर्ड समय में कोवैक्सिन के विकास के लिए सफलता की कुंजी बना है। कोवैक्सिन के विकास के साथ हमने साबित किया कि हम वैक्सीन के विकास की प्रक्रिया के आदि से अंत तक सभी विधाओं में पारंगत हैं एवं आवश्यकता होने पर त्वरित टीकों का निर्माण कर सकते हैं। कोवैक्सिन की यह कहानी वैज्ञानिक जगत के लिए एक प्रेरक उदाहरण है।

डीएसआईआर के सचिव एवं सीएसआईआर के महानिदेशक डा. खेखर सी. माण्डे ने टीम सीएसआईआर-सीडीआरआई को उनके वार्षिक दिवस पर बधाई दी और हेल्थकेयर और फार्मास्युटिकल उद्योग में योगदान के लिए संस्थान के सभी स्टाफ की प्रतिबद्धता पर अपना विश्वास जताया।

डॉ. डी. श्रीनिवास रेड्डी, निदेशक सीडीआरआई के निदेशक डा. डी. श्रीनिवास रेड्डी ने सभी गणमान्य व्यक्तियों का स्वागत किया और पिछले एक वर्ष में संस्थान की उपलब्धियों के बारे में बताया। इस दौरान उन्होंने सीडीआरआई, लखनऊ और ट्रोइका फार्मास्युटिकल प्राइवेट लिमिटेड, अहमदाबाद के बीच संस्थान की प्रभावी रैपिड प्रैक्चर-हीलिंग के लिए प्रत्याशी दवा की तकनीक के विकास, निर्माण और व्यावसायीकरण करने के लिए एक लाइसेंस समझौते के रूप में सहयोग की घोषणा की।

## इन्हें किया गया पुरस्कृत

सर्वश्रेष्ठ प्रौद्योगिकी पुरस्कार-2021 के लिए स्वदेशी क्यूआरटी-पीसीआर परीक्षण किट के विकास के लिए फ्लोरोसेंट डाई और क्वेंचर्स की तकनीक तथा ए नॉवेल स्मॉल मॉलिक्यूल एंटीप्लेटलेट कंपाउंड के विकासकर्ताओं को संयुक्त रूप से प्रदान किया गया। डा. मृदुला कम्बोज प्रौद्योगिकी पुरस्कार-2021 के लिए कोविड -19 के संभावित उपचार के रूप में उमीफेनोविर के विकास की प्रौद्योगिकी को चुना गया है। रिसर्च स्कॉलर्स के लिए एकेडमिक करियर अचीवमेंट अवार्ड्स-2022 के लिए अनुज कुमार को रसायन विज्ञान की श्रेणी में डा. एमएम धर मेमोरियल डिस्टिंग्विश्ड करियर अचीवमेंट अवार्ड। मुश्ताक नेगरू को जैविक विज्ञान श्रेणी में डा. एमएम धर मेमोरियल डिस्टिंग्विश्ड करियर अचीवमेंट अवार्ड, सैयद अनीस अहमद को प्री-क्लीनिकल एंड क्लीनिकल साइंसेज श्रेणी में डा. जेएम खन्ना मेमोरियल डिस्टिंग्विश्ड करियर अचीवमेंट अवार्ड, अर्ली करियर अचीवमेंट अवार्ड्स-2022, अशफाक अहमद व कृष्ण भान सिंह को डा. जे.एम. खन्ना मेमोरियल अर्ली करियर अचीवमेंट अवार्ड, देबलीना रॉय को महिला अनुसंधानकर्ताओं का डा. स्वर्ण नित्य आनंद मेमोरियल अर्ली करियर अचीवमेंट अवार्ड, मयूर दिलीपराव अंबुले को डा. डी.एल. श्रीवास्तव मेमोरियल अर्ली करियर अचीवमेंट अवार्ड से नवाजा गया।

## सीएसआईआर-सीडीआरआई अवार्ड-2022 की घोषणा

लखनऊ। सीडीआरआई के वार्षिक दिवस पर बृहस्पतिवार को औषधि अनुसंधान में उत्कृष्टता के लिए प्रतिष्ठित सीडीआरआई अवार्ड्स-2022 की घोषणा भी की गई। यह पुरस्कार इस साल सितंबर में सीएसआईआर के स्थापना दिवस पर प्रदान किए जाएंगे। इसके तहत रसायन विज्ञान श्रेणी में औषधि अनुसंधान में उत्कृष्टता के लिए संयुक्त रूप से डा. अलकेश बिसाई, प्रोफेसर, रसायन विज्ञान विभाग, आईआईएसईआर कोलकाता और डा. एस.एस.वी. रामशास्त्री, एसोसिएट प्रोफेसर, आईआईएसईआर मोहाली का चयन किया गया है। इसी प्रकार जीवन विज्ञान श्रेणी में हैदराबाद स्थित डीएनए फिंगर प्रिंटिंग और निदान केन्द्र की डा. मदिका सुब्बा रेड्डी और फरीदाबाद के डीएचएसटीआई डा. अमित अवस्थी को संयुक्त रूप से चुना गया है।

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Rashtriya Sahara, Amar Ujala, Rashtriya Swaroop



CSIR-CDRI

18<sup>th</sup> February, 2022

सीएसआईआर-सीडीआरआई के 71 वें वार्षिक दिवस पर नई दवा की घोषणा

# टूटी हड्डियों के लिए टैबलेट जल्द

राहत

लेखनरू | वरिष्ठ संवाददाता

हाथ-पैर या शरीर के किसी भी दूसरे अंग की हड्डी में फ्रैक्चर को जोड़ने के लिए अब महीनों प्लास्टर बंधवाने की जरूरत नहीं पड़ेगी। महज 15 से 20 दिन दवा खाने पर हड्डियां जुड़ जाएंगी। हड्डियों को जोड़ने वाली नई दवा सीडीआरआई ने खोजी है।

गुरुवार को संस्थान ने प्रभावी रैपिड फ्रैक्चर-हीलिंग दवा की तकनीक को अहमदाबाद स्थित ट्रोइका फार्मास्युटिकल को हस्तांतरित किया। सीडीआरआई के निदेशक डॉ. डी श्रीनिवास रेड्डी ने कहा कि संस्थान व ट्रोइका फार्मास्युटिकल के बीच प्रभावी रैपिड फ्रैक्चर-हीलिंग दवा की तकनीक के आगे के विकास, निर्माण और व्यावसायीकरण लाइसेंस के लिए समझौता किया गया है। इसका फायदा मरीजों को मिलेगा। सीडीआरआई के प्रवक्ता डॉ. संजीव यादव ने बताया कि फ्रैक्चर की दशा में मरीजों को दो से तीन

## इनको लाइसेंस

- हड्डी के इलाज के लिए यूएसए की एवेता बायोमिक्स को अमेरिकी पेटेंट लाइसेंस
- एंटीथ्रोम्बोटिक व फ्रैक्चर हीलिंग प्रत्याशी दवा को लाइसेंस दिया गया



सीएसआईआर-सीडीआरआई के 71 वें वार्षिक दिवस पर गुरुवार को वैज्ञानिकों ने एकजुट होकर रखे अपने विचार।

## जल्द बाजार में आएगी दवा

डॉ. अतुल गोयल और डॉ. दिव्या सिंह ने बताया कि मौजूदा समय में हड्डी के फ्रैक्चर को जोड़ने के लिए मुंह से लेने वाली (ओरल) कोई भी दवा उपलब्ध नहीं है। रैपिड फ्रैक्चर-हीलिंग एजेंट के रूप में नई रासायनिक इकाई विकसित की है। जिसका विभिन्न जन्तु मॉडलों में प्रभावकारिता और सुरक्षा संबंधी अध्ययन किए जा चुका है। भारत ने प्रथम चरण में क्लीनिकल ट्रायल की अनुमति भी हासिल कर ली है। ट्रोइका के कार्यकारी निदेशक डॉ. अशील पटेल ने कहा कि जल्द ही यह दवा बाजार में मरीजों के लिए लाई जाएगी। सीएसआईआर के महानिदेशक डॉ. शेखर सी माण्डे इस आयोजन से वर्युअली जुड़े।

माह तक प्लास्टर बांधने की जरूरत पड़ रही है।

सीडीआरआई ने जो दवा खोजी है। उसका सेवन डॉक्टर की सलाह पर 15 से 20 दिन करना पड़ेगा। इस दौरान

टूटी हड्डी आपस में जुड़ जाएगी। इस दौरान मरीज को प्लास्टर भी बंधवाना होगा। इससे हड्डियों के गलत जुड़ने के खतरे को भी टाल सकेंगे। इससे मरीजों को काफी राहत मिलेगी।

## भारत के वैज्ञानिकों ने जल्द बनाई को-वैक्सीन

वैक्सीन ने हमारी कोरोना से लड़ाई आसान की है। भारत ने कम समय में स्वदेशी वैक्सीन खोजने में अहम भूमिका निभाई। को-वैक्सीन को तैयार करने में वैज्ञानिकों ने कड़ी मेहनत की। ये बातें इंडियन काउंसिल ऑफ मेडिकल रिसर्च के महानिदेशक डॉ. बलराम भार्गव ने कहीं। वह सीएसआईआर-सीडीआरआई के 71 वें वार्षिक दिवस को संबोधित कर रहे थे। 47 वें मेलानबी व्याख्यान में डॉ. बलराम भार्गव ने गोइंग वायरल: मेकिंग ऑफ को-वैक्सीन द इनसाइड स्टोरी साझा की।

## दवा की खोज में पुरस्कार

● रसायन विज्ञान की श्रेणी में कोलकाता स्थित आईआईएसईआर के डॉ. अलकेश बिसाई व मोहाली आईआईएसईआर के डॉ. एसएसवी रामशास्त्री

● जीवन विज्ञान श्रेणी में हैदराबाद स्थित डीएनए फिंगर प्रिंटिंग और निदान केंद्र की डॉ. मदिका सुब्बा रेड्डी और फरीदाबाद के टीएचएसटीआई डॉ. अमित अवस्थी



## Industrial Motivation Campaign: Calling Women Entrepreneurs

CSIR-CFTRI

17<sup>th</sup> February, 2022

MSME Development Institute, Bangalore in association with WISE (Women In Small Enterprise) – MCCI (Mysore Chamber of Commerce & Industry) is organising a one-day “Industrial Motivation Campaign” on Feb.19 (Saturday) from 10 am to 3 pm at the MCCI premises on D. Devaraja Urs Road. The objective of the programme is to provide awareness on Role of Ministry of MSME, amended schemes of MSME and aspects of Exports. Expert Speakers from MSME Department are participating in the programme.

All women entrepreneurs may attend the workshop and make use of this opportunity. Those who are interested may register their names by contacting Rukmini Chandran on Mob: 94483 54648 or B.R. Bharathi on Ph: 0821-4250246 or email: [mccimysore@gmail.com](mailto:mccimysore@gmail.com), according to a press release.

Dr. Renu Agrawal nominated to National Export Committee

Mysuru, Feb. 17- Dr. Renu Agrawal, former Chief Scientist and Rural Programme Coordinator, CSIR-CFTRI, Mysuru, has been nominated to National Committee on Export Standards, Guidelines and Promotion for Vegan Food Products by Agricultural and Processed Food Products Export Development Authority of India, under the Ministry of Commerce and Industry, Government of India.

The Committee will develop the export oriented standards, guidelines as per importing country requirements, authenticate the vegan products in the supply chain and promote strategies for export promotion.

**Published in:**

[Star Of Mysore](#)



## NIO proposes 'iron fertilisation' to tackle global warming

CSIR-NIO

17<sup>th</sup> February, 2022

In the COP26 2021 United Nations Climate Change Conference held in Glasgow, Scotland, United Kingdom countries debated on the need to cut down emission of greenhouse gases. Establishment of Glasgow Financial Alliance for Net Zero of US dollar 130 trillion of private capital was announced to accelerate transition into net-zero economy and deal with climate change.



NIO scientists collecting samples for research in the Indian Ocean

However, achieving the zero emission target is a cumbersome, lengthy and expensive process. While the world works towards reducing its carbon footprint through various means like using clean energy, the Council of Scientific and Industrial Research (CSIR) laboratory NIO, Goa has proposed a simpler Geo-engineering method of iron fertilisation to reduce carbon dioxide in the atmosphere.

“We came to this conclusion while conducting a study on lack of productivity in the ocean. Macronutrients like nitrates, phosphates and silicates are required for ocean productivity. It was observed that 30-40 percent of the southern ocean near Antarctica and even Arabian Sea, despite having enough macronutrients was not productive enough. Photosynthesis should have been taking place and marine life should have been flourishing. But this was not happening. The researchers came to the conclusion that it was happening due to lack of iron,” Director of CSIR-NIO, Sunil Kumar Singh told Herald.

For photosynthesis, the presence of iron is a must. If it is not there, then photosynthesis won't take place, thus ocean productivity won't happen. But measuring the presence of



micronutrients, such as Fe was a very difficult task. During photosynthesis, plants take in carbon dioxide ( $\text{CO}_2$ ) and water ( $\text{H}_2\text{O}$ ) from the air and soil. This transforms the water into oxygen and the carbon dioxide into glucose. The plant then releases the oxygen back into the air, and stores energy within the glucose molecules.

But there wasn't much information about the exact presence of micronutrients. Then a programme was started called GEOTRACES to work on the measurements of micronutrients in the global ocean. The Pacific and Atlantic oceans were being analyzed by western world. The Physical Research Laboratory, National Institute of Oceanography and a few other labs started work on the Indian Ocean with the help of the Ministry of Earth Sciences.

"I was leading the programme during my tenure at the Physical Research Laboratory. I continued with this research after joining NIO. We started this work on a significant part of the Indian Ocean. We found that in the southern and north west Arabian Sea (near the Persian Gulf), iron concentration was very low. This was partly happening because the water from the southern ocean was bringing less iron into the Arabian Sea," NIO Director said.

"There are iron deficient areas in the ocean, due to which marine productivity is less. By artificial iron seeding, the productivity can increase as it will enhance the photosynthesis process in which plants draw atmospheric carbon dioxide. Simultaneously, it will remove  $\text{CO}_2$  from the atmosphere and tackle the problem of global warming." he said.

Either you can put desert dust in the water or iron waste or iron powder under this process. All the nutrients are in the water. Once you put iron in the water, productivity will increase and atmospheric  $\text{CO}_2$  will be converted into organic matter through photosynthesis. Such experiments have been already tried earlier and are ongoing in some part of the ocean. We want to implement this strategy in the iron-deficient region of the Arabian Sea," Singh said.

There is a flip side to this though. Environment NGOs like Greenpeace are contesting this method as according to them this will increase marine pollution. Also, if there is too much



productivity then it can lead to exhaustion of oxygen in the ocean. “This can be controlled by checking the impact on marine ecology through conducting pilot study in some portion of the sea and then deciding on the proportion of iron that is needed to be put in the water to serve the purpose without harming marine life,” the NIO director said.



CSIR-CDRI

17<sup>th</sup> February, 2022

# CDRI to commemorate 71st Annual Day today

**Lucknow (PNS):** To commemorate the 71 prestigious and glorious years in pursuit of affordable healthcare for all, CSIR-CDRI is celebrating its Annual Day on February 17. The institute is organising the 'Sir Edward Mellanby Oration' in memory of first director, Sir Edward Mellanby.

Secretary, department of Health Research (Ministry of Health and Family Welfare), and DG of ICMR, Balram Bhargava will be the chief guest on the occasion and will deliver the '47th Sir Edward Mellanby Oration' on 'Going viral: Making of Covaxin, the inside story'.

Secretary, DSIR, and DG of CSIR, Shekhar C Mande will be the special guest. CSIR Eminent Scientist Ram Vishwakarma, and former director of CSIR-CDRI Tapas K Kundu will also be present on the occasion. CSIR-CDRI Lucknow will transfer its technology to industry partners for further development and commercialization. Felicitation of Annual Day awardees for best technology, patent, publications, and incentive awards for research schol-

ars, and felicitations of staff completing 25 years of service at CSIR-CDRI will also take place tomorrow, spokesperson Sanjeev Yadav said.

Meanwhile, CDRI licensed technology of Nucleic Acid Staining Dye GreenR™ to Geneto Protein Pvt Ltd for life sciences research with trade name 'GreenR™' to Geneto Protein Pvt Ltd (GTP), a start-up company registered in Uttar Pradesh in the year 2020, and involved in developing an array of enzymes, kits and biochemicals used in life sciences research, particularly in molecular biology. The dye has been developed by CDRI senior principal scientist Atul Goel in a joint collaborative project with an industry partner, Biotech Desk Pvt Ltd, Hyderabad. The new technology is indigenous, cost-effective and safe. CDRI director Srinivasa Reddy said the nucleic acid staining dye segment seems to be dominated by costly imported products of multinational companies and this make-in-India product is cost-effective and will reduce our dependence on foreign supplies.



CSIR-CEERI

17<sup>th</sup> February, 2022

# फजी लॉजिक में नए शोधार्थियों के लिए कैरियर की असीम संभावनाएं: डॉ. अजॉय पालित

सीमा सन्देश संवाददाता

पिलानी। आजादी के अमृत महोत्सव कार्यक्रमों की शृंखला के अंतर्गत सीएसआईआर-सीरी में वैज्ञानिकों एवं शोधार्थियों के लाभार्थ कंप्यूटेशनल इंटेलिजेंस जैसे महत्वपूर्ण विषय पर यूनिवर्सिटी ऑफ ब्रेमेन, जर्मनी के डॉ (इंजी) अजॉय कुमार पालित के आमंत्रित व्याख्यान का आयोजन किया गया।

संस्था के जनसंपर्क अधिकारी रमेश बौरा ने बताया कि व्याख्यान में उन्होंने कंप्यूटेशनल इंटेलिजेंस पर चर्चा करते हुए उपस्थित शोधार्थियों के समक्ष फजी लॉजिक के अनुप्रयोगों पर प्रकाश डाला तथा इसे नए शोधार्थियों के लिए शोध करियर हेतु अत्यंत उपयोगी बताया। अपने विस्तृत व्याख्यान में उन्होंने बताया कि फजी लॉजिक जैसे विषय



व्यापक संभावनाओं वाले हैं। इस पर प्रकाश डालते हुए हुए उन्होंने कहा कि रक्षा, ऐरोस्पेस, इलेक्ट्रॉनिक्स, वाणिज्य, ऑटोमोबाइल, पैटर्न रेकग्निशन सहित विनिर्माण, परिवहन, हेल्थकेयर, रोग निदान आदि में इसके व्यापक अनुप्रयोग हैं। डॉ. पी सी पंचारिया, निदेशक, सीएसआईआर-सीरी ने अपने

स्वागत संबोधन में सभी सहकर्मियों एवं शोधार्थियों को डॉ. पालित का औपचारिक परिचय दिया और उनके साथ अपने जर्मनी प्रवास के दौरान कुछ अनुभव साझा किए। उन्होंने संस्थान का निमंत्रण स्वीकार करने और अपने व्याख्यान से संस्थान के सहकर्मियों को लाभान्वित करने के लिए डॉ.

पालित को धन्यवाद दिया। डॉ. पंचारिया ने आमंत्रित वक्ता को स्मृति चिह्न भेंट कर सम्मानित किया। कार्यक्रम का संचालन करते हुए श्री प्रमोद कुमार, प्रधान वैज्ञानिक ने अतिथि का स्वागत किया और कार्यक्रम की पृष्ठभूमि पर प्रकाश डाला। अंत में डॉ. विजय चटर्जी, वैज्ञानिक ने धन्यवाद ज्ञापित किया।

**Published in:**

Seema Sandesh



## Pandemic is not yet over, warns top scientist

CSIR-CCMB

16<sup>th</sup> February, 2022

**‘Important to keep economy running, but don’t forget virus is all around us’**

The COVID-19 pandemic is not over yet and “if we don’t do anything, we might get another wave through a new variant, which is likely to be highly infectious and cause severe clinical impacts”, warn scientists. “Omicron may be causing milder symptoms, but it could still be fatal for the elderly and those with co-



morbidities. If we allow ourselves to be infected by disregarding safety protocols or not taking the vaccine, we will be effectively helping new and, possibly, more potent variants to arise in a few months,” says director of Tata Institute for Genetics & Society (TIGS), Rakesh Mishra.

The former CSIR-CCMB director says it is “dangerous” to think Omicron is “mild” because it is still a virus and not a vaccine: “We are extremely lucky we have multiple options of vaccines. While they may not guarantee protection from infection, they are still doing an amazing job of substantially reducing hospitalisation and death related to COVID-19. Vaccines are controlling transmission and in ensuring cellular immunity even if antibody titers may become less with time”.

New variants are expected to be “more infectious” to replace the existing dominant ones. “We have to be very proactive and, as shown in case of Omicron, coordination among countries across the world is vital too. Omicron took less than a couple of months to spread across the world,” he points out, in an exclusive interaction.

While we need to keep the economy running and open up educational institutions, we should



in no way forget that the virus is all around us. “It is dangerous and we should not let it spread. Face masks should become part of our social etiquette because by protecting yourself, you will be safeguarding your own vulnerable family members and friends. Avoid crowded places or spend less time there,” says Dr. Mishra.

Randomised testing of samples, wastewater surveillance and genomic sequencing should be continued even as the peak is past so that a sudden spurt in cases or unusual symptoms can be monitored, he advises. “It is equally important to share the data as soon as possible. This is important to ensure data-based strong policies. Correct information should be disseminated by people in responsible positions and experts, as that helps in building trust among the people and minimise misinformation and disinformation,” adds the TIGS director.



## Kerala researcher's biodrug holds promise in cancer cure

CSIR-CCMB, NCL

16<sup>th</sup> February, 2022

THIRUVANANTHAPURAM: Turmeric has always been lauded for its therapeutic properties. Its cancer-curing properties have always been known and, this time, a researcher from the capital city has proved it yet again. In a major leap in science and research in cancer cure, Dr Lekha Dinesh Kumar has blended two research technologies — RNA interference (RNAi) and nanotechnology — thereby developing a biodrug that is non-toxic and bio-compatible and ensuring site-specific delivery of the same to targeted colon and breast cancerous cells.

Curcumin, an active component in turmeric, has potent anticarcinogenic, anti-inflammatory and antioxidant properties and is ideal for cancer therapeutics, said Dr Lekha who works as project leader, cancer biology, at CSIR-Centre for Cellular & Molecular Biology (CCMB) in Hyderabad. Curcumin along with other biological components are used to transport the biodrug.

The research which got published in the peer-reviewed scientific journal 'Nanoscale' involved a collaboration of CSIR-Centre for Cellular & Molecular Biology (CCMB) and CSIR-National Chemical Laboratory (NCL). The 'gene-silencing approach' or RNAi method is used here. The RNAi is a promising tool for targeted and focused therapy for chronic diseases like cancer.

This is combined with nanotechnology, thereby developing nanocarriers that target RNA and silence it, or silence the over-expressed gene. "It is the over-expressed gene that leads to cell multiplication and then to tumour and cancerous growth. The technology shuts the gene down, selectively," said Dr Lekha. It was the lack of safe and effective delivery methods for RNAi molecules has been the primary challenge that prevented the potential of RNAi based therapy, she said.

"This could be addressed by using nanotechnology. The combinatorial approach of using



nanocurcumin to encapsulate the drug allows in the enhanced targeting and uptake by the cancerous cells at the tumour site,” said the Thiruvananthapuram native. The proposed biodrug developed by Dr Lekha is non-toxic and bio-compatible. The results proved that nano-RNAi biodrug formulation efficiently regresses the tumours by effectively knocking down target genes.

The pre-clinical studies were done in mice models. “We could see that after the administration of the drug, there was a one-fourth increase in the lifespan of the mice. This, when compared to humans, ensures good longevity. A onefourth increase in lifespan would mean an increase of 20 to 25 years for humans,” says Dr Lekha. The next step involves clinical trials in humans.



## CSIR-CDRI Nucleic Acid Staining Dye technology licensed

CSIR-CDRI

16<sup>th</sup> February, 2022

Lucknow based national laboratory CSIR-Central Drug Research Institute (CDRI), has licensed the technology of Nucleic Acid Staining Dye GreenR™ to GenetoProtein Pvt. Ltd., a start-up company registered in Uttar Pradesh in the year 2020. This startup is involved in developing an array of enzymes, kits and biochemical used in Lifesciences research, particularly molecular



biology. The dye GreenR™ has been developed by CDRI Senior Principal Scientist Dr. Atul Goel in a joint collaborative project with an industry partner Biotech Desk Pvt. Ltd., Hyderabad.

The director CSIR-CDRI Dr. Srinivasa Reddy said that "the nucleic acid staining dye segment seems to be dominated by costly imported products of multinational companies and this make-in-India product is cost-effective and will reduce our dependency on foreign supplies. He further mentioned that CSIR-CDRI, Lucknow is committed to nurturing the development of pharma cluster and startup culture in Uttar Pradesh, and this is another step in this direction."

While talking about the technology, Dr. Atul Goel informed that the product GreenR™ may be used to stain DNA and RNA for research and diagnostics to detect and quantify them. It binds to nucleic acids like genomic DNA, PCR products, plasmids and RNA under blue light or UV exposure.

Dr. Shradha Goenka, Director of GenetoProtein Pvt. Ltd. commented that the efficacy and toxicity of GreenR™ have been tested, and various applications for this dye are now being



studied. We have been dependent upon stains like Ethidium bromide, which intercalates between the DNA strands and is a known mutagen to bacteria, animals, and humans. Hence its usage is risky for the user and its disposal needs special treatment. To overcome these toxicity issues, some foreign companies have invented safe DNA dyes such as Sybr Safe™ by ThermoFisher. However, these dyes have substantial costs as they are expensive to import.

The development of the new safe dye that team has named “GreenR™” will help researchers in the field of Lifesciences and DNA-based diagnostics to bring down their cost substantially. This would enhance the product portfolio of her company and help Indian research go one step closer to Aatmanirbhar Bharat. The product also has applications in molecular diagnostics and would support in PCR- based testing of diseases.



CSIR-IHBT

16<sup>th</sup> February, 2022

# किसानों को दिए मधुमक्खी पालन के टिप्स

हिमाचल दस्तक ■ पालमपुर

सीएसआईआर - आईएचबीटी पालमपुर ने कांगड़ा जिले के मरयाड़ी, सलोह, घोरब और घुरकड़ी पंचायतों में फूलों की खेती और सुगंधित फसलों में मधुमक्खी पालन के एकीकरण लिए चार दिवसीय प्रशिक्षण और जागरूकता कार्यक्रम आयोजित किए।

इन कार्यक्रमों में 101 किसानों ने भाग लिया और प्रशिक्षण कार्यक्रम से लाभान्वित हुए। इन कार्यक्रमों में किसानों को आधुनिक मधुमक्खी पालन के विभिन्न पहलुओं जैसे कि मधुमक्खी कालोनियों का प्रबंधन, मधुमक्खियों के कीट एवं रोग प्रबंधन और शहद के उत्पादन के लिए अमृत से भरपूर पौधों की खेती पर प्रशिक्षित किया गया। सीएसआईआर-आईएचबीटी और सीएसआईआर-सीएसआईओ द्वारा स्वदेशी रूप से विकसित बेहतर

■ सीएसआईआर  
आईएचबीटी पालमपुर ने  
कांगड़ा में दी ट्रेनिंग

■ प्रशिक्षण शिविरों में  
जिले के 101 किसानों ने  
लिया भाग

■ फूलों की खेती के लिए  
भी जागरूक किए गए  
किसान



चार दिवसीय प्रशिक्षण और जागरूकता कार्यक्रम के समापन पर उपस्थित किसान।

फलोहाइव का प्रदर्शन भी किया गया, जिसमें मधुमक्खियों की मृत्यु के बिना शहद का स्वच्छ निष्कर्षण किया जाता है। डॉ. संजय कुमार निदेशक

आईएचबीटी पालमपुर ने परागण, उच्च उत्पादकता और उत्पादन के लिए फूलों की खेती और सुगंधित फसलों के साथ मधुमक्खी पालन को एकीकृत करने के लिए किसानों

को अपना संदेश दिया। साथ ही, किसानों को उनकी आजीविका और रोजगार के लिए शहद और उसके उत्पादों को बेचकर अतिरिक्त आय प्राप्त करने की भी सलाह दी।

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