

CSIR IN MEDIA



CSIR

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Vice President M. Venkaiah Naidu Inaugurates The Platinum Jubilee Foundation Day Of CSIR-CBRI

CSIR-CBRI

10th February, 2021



The Vice President Shri M. Venkaiah Naidu today stressed the need for providing affordable, safe and durable housing to the growing middle classes without compromising on quality. At the same time, there is a need to ensure aesthetics, the Vice President said while virtually inaugurating the Platinum Jubilee Foundation Day of Central Building Research Institute (CSIR-CBRI). The rapid economic growth and increased urbanisation has led to a great demand for housing in cities, making it a daunting task for planners, he added. Emphasising on the importance of aesthetics, he said – “When a family lives in a crammed locality with hardly any ventilation or sunlight reaching the

homes, it naturally affects their wellbeing.” COVID has shown us the need for air circulation and the importance of sunlight, and it is the duty of the architects, planners, governments and institutions like CBRI to ensure these elements in built structures, added. He also suggested that authorities look into the feasibility of making adequate light and air circulation a norm for building plan approval. The Vice President observed that the emotional appeal of a ‘home’ has not changed, even as we progressed from simple mud-walled huts to sophisticated skyscrapers. Thanks to our economic growth, schemes like Pradhan Mantri Awas Yojana and progressive legislations like RERA which protects home buyers, the dream of owning a home is not just of the few anymore, he added. In order to fulfil the responsibility of ‘Housing for All’ in letter and spirit, Shri Naidu called for adopting latest technological advancements such as prefabricated buildings, factory-made housing and precast stone blocks. Pointing to the fact that the current practices are still largely labour and material intensive,

he said this often leads to time and cost overruns. Institutes like CBRI must lead the way in the latest technological advancements like 3-D printed housing and zero energy buildings, Shri Naidu observed. He also said that our construction workforce must be well-trained in modern construction techniques, noting the huge employment potential in the sector. “Unskilled manpower in this sector must become skilled manpower”, he said. The Vice President also raised the issue of sustainability in buildings. Underscoring the need for green buildings’, Shri Naidu said that 39% of energy-related CO₂ emissions in the world are coming from buildings, a major contributor to greenhouse gases. He called for making green buildings the ‘new normal’ by creating awareness about this concept among the people.

Shri Naidu also highlighted the importance of using ‘green materials’. Pointing out that the production of traditional construction materials like brick, wood, cement, steel and sand is energy-intensive, the Vice President called for promoting nature-friendly homes by increasing the use of locally available materials or ‘green materials’. “‘Reduce, reuse and recycle’ should be the mantra of civil engineers and they should utilise the by-products of other industries such as fly ash from power plants”, he added.

Shri Naidu also called for addressing the huge housing shortage in rural areas. He added that the Government has launched the ambitious PMAY (Gramin) for this purpose with an aim to provide a pucca house to all, by 2022. He reiterated the vision of Shri APJ Abdul Kalam and Shri Atal Bihari Vajpayee who called for providing urban amenities in rural areas. “If we can provide these, along with employment opportunities we can contain rural-urban migration and reduce the pressure on cities”, the Vice President advised.

Noting that the country is prone to multiple hazards and calamities, Shri Naidu also highlighted the importance of adopting disaster-resilient designs and construction practices as the new norm in all buildings. He appreciated the role of CBRI in improving Disaster Mitigation in buildings, including Fire Engineering and for its role in constructing five COVID hospitals in Himachal Pradesh in a record time.

He expressed hope that the Institute will continue to be at the forefront of the 'housing revolution' in India and work for the shared dream of 'Housing for All'.

The Vice President also virtually inaugurated makeshift hospitals at Nalagarh and Tanda, Himachal Pradesh, the Platinum Jubilee Pseudo Dynamic Laboratory and the Centre for Excellence in Cultural Heritage at CSIR-CBRI.

Shri Jai Ram Thakur, Hon'ble Chief Minister of Himachal Pradesh, Dr. Shekhar C Mande, Director General, CSIR & Secretary, DSIR, Dr N. Gopalakrishnan, Director, CSIR-CBRI, Roorkee were among the dignitaries present during the virtual event.

Published in:

[India Education Diary](#)

Only 10% of Bengaluru lakes have good water quality: Study

CSIR-NEERI

10th February, 2021



In all, 21 out of 210 lakes in Bengaluru city have excellent water quality, which can be used for drinking purposes, according to a study. The study conducted by the CSIR-National Environmental Engineering Research Institute (NEERI) reveals that out of 21 lakes, which is 10 per cent of total lakes in the city, the Yelahanka Zone of BBMP alone has 11 with excellent water quality. In the report of Phase-1, NEERI not only studied the status of lakes but also suggested both short-term and long-term measures for their rejuvenation. The NEERI report was submitted before a division bench of Chief Justice Abhay Shreeniwas Oka and Justice Sachin Shankar Magadam on Tuesday.

The CSIR-NEERI was appointed by the Bruhat Bangalore Mahanagara Palike (BBMP) to study the lakes in Bengaluru, in response to the directions issued by the Karnataka High Court on a batch of public interest litigations relating to lakes. Out of 210 lakes, the water quality of 36 lakes is very poor, which means that the water cannot be used for any purpose; and the water quality of 63 lakes is poor which can be used for irrigation but with restricted usage. Samples of some of the lakes could not be collected due to weeds and also as some were dry. The main objective included the study of the causes of pollution of lakes, suggest short-term and long-term measures for their protection, ascertain the location of lakes which have disappeared with passage of time, and preparation of a master plan for rejuvenation and restoration of the existing ones. As the inlet to the lake mostly carries the sewage along with the storm water, according to NEERI, technologies can be installed for the treatment of drain water and this treated water can be let into the lake. The two technologies of NEERI -- RENEU

(In situ drain treatment of the lake) and Phytorid (a wetland system based sewage treatment) -- are proposed to be installed for the drain treatment of the lakes. The Detailed Master Plan for restoration of lake water quality for each lake will be addressed in Phase-II report, NEERI said. It has suggested long-term measures like a multi-disciplinary approach for the conservation of the lakes. It has also suggested a management planning framework to provide a balance between ecosystem restoration and conservation for ensuring ecological integrity of lakes.

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[Indian Express](#)

CSIR-IIIM launches Aroma Mission Phase-II

CSIR-IIIM

10th February, 2021

CSIR-Indian Institute of Integrative Medicine (IIIM), Jammu has launched CSIR-Aroma Mission Phase-II, here today. In this connection, a day-long scientists-farmers interaction programme was organized in the auditorium of IIIM, Jammu which was attended in person by a large number of farmers from all over J&K and virtually by farmers from Punjab, Rajasthan, Gujarat, Assam, Uttarakhand, and Madhya Pradesh. Dr J P Sharma, Vice Chancellor, SKAUST, Jammu was the chief guest on the occasion and Prof Sudhir Sopori (Ex-Vice Chancellor, JNU), Dr D Srinivasa Reddy (Director, CSIR-IIIM, Jammu), Dr Prabodh K Tripathi (Director, CSIR-CIMAP, Lucknow) and Ramakant Harlalka (M D, Nishant Aroma, Mumbai) were the other dignitaries.

On the occasion, besides technical session, a documentary on CSIR-Aroma Mission was released and scientists-farmers interaction was also held. Dr J P Sharma, while addressing the farmers, emphasizing on the need of processing and value addition of the agricultural produce to prevent the post harvest loss, Dr Sharma made the farmers aware about the sector wise schemes the Government of India has launched for the prosperity of farmers. Earlier, Dr D Srinivasa Reddy in his address said that Aroma Mission is one of its kind of project where an end-to-end technology on cultivation, processing, and marketing of high-value aromatic crops was provided to the farmers and other stakeholders.

Dr Dhiraj Vyas, Principal Scientist and Head Plant Sciences, while presenting welcome address, gave brief introduction of the program while Dr Sumeet Gairola, Nodal Scientist Aroma Mission, informed that in the second Phase of Aroma Mission CSIR-IIIM, Jammu aims to further expand the area to around 9,000 hectares in the next three years. Dr D M Mondhe, Senior Principal Scientist & Head Cancer Pharmacology, Abdul Rahim, Senior Principal Scientist and Head PME Division, Dr G D Singh, Senior Principal Scientist

and Head PK-PD Toxicology Division and Dr Zabeer Ahmed, Senior Principal Scientist and Head Inflammation Pharmacology & ES divisions were also present. The programme concluded with vote of thanks presented by Rajneesh Anand (Chief Scientist).

Technology transfer of CSIR-CMERI developed water purification technologies

CSIR-CMERI

9th February, 2021



CSIR-CMERI transferred four indigenously developed Water Purification Technologies to three prominent MSMEs engaged in the Water Purification domain on 9th February 2021, in the presence of Prof. Harish Hirani, Director, CSIR-CMERI at a Press Conference. The MSME partners hailed the indigenously developed Water Purification technologies as a major stepping stone towards Self-Reliance and Import-Substitution. Prof. Harish Hirani on this occasion shared, "There is a huge scarcity of Water across the Globe and it is more so for Drinking Water. CSIR-CMERI is focussed upon Research & development of Affordable Water Purification Technologies, because penetration of these

technologies to the rural regions of the country is utmost significance and it can be effectively achieved only when we forge a partnership with the MSMEs. The MSME partners can also tremendously benefit by availing the Government Marketing Promotion Schemes, to reach out to our immediate neighbouring countries and African Nations. Every region requires tailor-made purification solutions as per the variability of the local parameters and thus CSIR-CMERI developed technologies are designed in a modular fashion to increase its dynamism and effectiveness for diverse geographical regions. The CSIR-CMERI Water Testing Facilities can facilitate the assessment of local Water Parameters and thereafter in partnership with the Local Government Institutions, this Institute can develop solutions for impactful Water Treatment." In response to queries by the Media Personnel, Prof. Harish Hirani shared CSIR-CMERI ensures holistic Technology Follow-Up to the MSME partners for ensuring Market Outreach. Sourav Ganguly, M/s Zenith Aquatech, Howrah, shared,

"The already transferred CSIR-CMERI Water Technologies has had tremendous Market Response. The CSIR-CMERI indigenously developed Water Purification Technologies are much more effective and affordable than imported technologies already being used by the Company. These technologies are reliable & authentic owing to the technical assurance of brand CMERI. The CMERI technologies are playing a crucial role in promoting the Jal Jeevan Mission of the Government of India and can be one of the most prominent factors in achieving water sufficiency for the nation." Sumit Mukherjee, M/s TECHNOCHEM, Barasat, shared, "When compared with imported technologies, the CSIR-CMERI developed high low rate arsenic removal technology is more affordable & sustainable. The Raw Materials are easily available and low maintenance. Numerous regional projects in Bihar have been successfully implemented using CSIR-CMERI Water Technologies. CSIR-CMERI developed water purification technologies are purely society-centric and the prot-motive of the MSMEs. Jatin Ahuja of M/s HES Water Engineers(India) Pvt. Ltd shared, "After 16 years in the domain of large-scale Water Purification, we are hereby forging a partnership with CSIR-CMERI, owing to the Market Stature that it is steadily gaining in the domain of Water Purification. The Technology initiatives of CSIR-CMERI will help achieve Atma Nirbharta in the truest sense and us MSMEs are enthusiastic to partner in this progress."

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Efficacy study of vaccines under way

CSIR-IICB

9th February, 2021

CSIR-Central Food Technological Research Institute (CFTRI) and the Grassroots Research and Advocacy Movement (GRAAM) have inked a memorandum of understanding to provide a mutual technical-social collaboration for establishing rural livelihood initiatives in India. In this connection, a technical training programme on convenience flour suitable for Stiff Porridge (Ragi Mudde Mix) and Malted weaning food (Ragi Shishuposhan) to the women entrepreneurs from Asare Sanjeevini Food Products, Bilikere, was conducted recently at CSIR-CFTRI.

A weeklong training was conducted at CFTRI by Dr Usha Dharmaraj and a team of scientists and technical officers from CFTRI, who have expertise in processing millets and pseudo-cereals, weaning food, etc., have provided the training from January 18 to 23, 2021. About 14 women were benefitted through the hands-on training programme and were provided with certificates. Dr Sridevi Annapurna Singh, director, CSIR-CFTRI and Dr Basavaraju R Shreshta, executive director, GRAAM, Dr Rajeshwar Matche, head of TTBD at CFTRI, Dr Usha Dharmaraj and Dr Satyendra Rao from CFTRI, and the staff of CFTRI and GRAAM were present during the programme. Susheela, project director, ZP Mysuru, and Girish, EO, TP Hunsur, and NRLM field staff were also part of the programme.

Stating that empowering women will empower the family and thereby empower the nation, Dr Sridevi Annapurna Singh, appreciated the efforts of GRAAM and said that CFTRI will always be open to extend any technical support in making the initiative a successful one. She congratulated all the women and wished all the success to the aspiring women entrepreneurs. Wuerth Elektronik India Pvt. Ltd. is supporting this initiative under its corporate social responsibility programme.

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‘Need to be on alert for coronavirus mutations’

CSIR-CCMB

8th February, 2021



CCMB Director cautions people not to let guard down despite dip in infectivity

COVID-19 cases are declining along with incidence of hospitalisation and deaths in most places across the country. Yet, scientists have cautioned people not to let their guard down but continue to follow safety measures of wearing face masks, and maintaining personal hygiene and social distancing. “All indications are that the number of cases are becoming less and less, even if factoring the rapid antigen testing which has just about 50-60% accuracy. Importantly, the number of patients in hospitals are less and the number of deaths too has come down as is being indicated by sero-surveillance surveys.

But, we need to be alert for any further mutations which could lead to more viral loads and infections,” says CSIR-Centre for Cellular & Molecular Biology director Rakesh Mishra.

This is because the evolution of the virus is such that “it wants to spread and hence, will keep creating variants without perhaps bothering the hosts yet could cause strong infectivity”. The present situation comes as a huge relief to everyone but it does not mean “we are safe as a nasty one could emerge as can be observed in the UK and other variants. Similarly, an independent variant could emerge from here and spread quickly,” he explains.

The saving grace is that symptoms of the newer variants are similar even if the spread is faster. While there could be multiple factors leading to the reduction in the infection rate across the country despite fears of elections, festivals and agitations leading to a surge, the “good news”, according to Dr. Mishra, is that the new strains noticed have not led to any re-infections and are not bypassing the acquired immunity levels. Scientists the world over are poring through the genetic analysis

of the different virus strains to understand the disease better as the long term effects on the brain, heart and other organs is not yet known. But, amid all these, the vaccination process initiated is vital, he asserted. “Even a few months of protection due to the vaccination may turn the tables, otherwise there is a chance for the virus to resurrect. Take it when your time comes,” he adds.

International conference on trends in bioengineering

CSIR-IGIB

8th February, 2021



The MIT School of Bioengineering Sciences & Research, MIT ADT University, Pune, has organized the fourth international conference on Recent Trends in Bioengineering (ICRTB 2021) on February 12 and 13 through virtual mode, a statement issued by the university said. The conference will be inaugurated by chief guest Aliasger K. Salem, Bighley Chair of the Pharmaceutical Sciences University of Iowa, USA, Mangesh Karad, Executive President and Vice-Chancellor, and Vinayak Ghaisas, Director of the BIO Engineering Institute and convenor of the conference. The conference theme areas include nanobiotechnology, synthetic biology, tissue engineering, environmental

biotechnology, wearables & diagnostics, assistive devices, biomedical robotics, medical image processing, nanoinformatics, immunoinformatics, drug design, AI, and Big data in biology and Biomaterials. The two-day conference will include talks by eminent keynote speakers such as Dr. Karl Bohringer, Professor at University of Washington USA, Dr. Jeremy Simpson, Professor, University College Dublin, Ireland, Dr. Anurag Agrawal, Director at CSIR-IGIB India, among many others. More than 100 abstracts have been received for oral and poster presentations from all over India and abroad. The organizers have collaborated with the Springer Journal of Medical and Biological Engineering for publishing selected high-quality research papers that will be presented at the conference. An industry expo is also organized with participation from various bioengineering companies displaying their innovative products and solutions.

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[The Times of India](https://www.timesofindia.com)

BEML signs MOU to co-develop two-seater trainer aircraft and other high-tech products in the aerospace sector at the Aero India 2021 air show

CSIR-NAL

7th February, 2021



With a turnover of more than Rs.3,500 crore, defence public sector enterprise (DPSE) BEML Limited (formerly Bharat Earth Movers Limited) plays a pivotal role with top-draw services in core sectors like defence, railways, power, mining, and infrastructure and is India's leading mining and construction equipment manufacturer, offering a comprehensive range of mining machinery. Even while continuing to ramp up production and sales of its hydraulic excavators, bulldozers and dump trucks, the DPSE has extended its gaze to the aerospace sector over the past dozen years in a bid to take advantage of the global and domestic opportunities in the fast-expanding aerospace market.

At Aero India 2021, BEML's foray into the aerospace business was the cynosure of all eyes, with the company announcing a joint venture with the Council of Scientific and Industrial Research (CSIR)-National Aeronautics Laboratory (NAL) to co-develop a two-seater trainer aircraft through the transfer of technology (ToT) route. Also on display at Aero India 2021 were BEML's unmanned aerial vehicles (UAVs), such as the Primoco UAV One 150, which is designed for civilian and military use, and two other smaller UAVs. The company also showcased its Transporter Landing System (TLS) and a variety of equipment and critical components in the aerospace sector. The TLS is a ground-based precision landing system which can improve access to airports where terrain constraints make instrument landing system (ILS) installation infeasible or prohibitively costly. The TLS works over any terrain using directional antennas and can be installed even on short runways ending with water or other obstructions. BEML would be manufacturing the TLS in India in collaboration with

the United States-based Advanced Navigation and Positioning Corporation. Talking to Frontline, BEML's M.V. Rajasekhar, Director, Mining and Construction, (he has also taken additional charge as Chairman and Managing Director of the company), and A.K. Srivastav, Director, Defence, were of the view that unmanned aerial vehicles were the future. Said Rajasekhar: "UAVs are a totally unexplored sector and business. Not only will they find great use in military applications both for surveillance and in an offence mode given that future wars will be unmanned and remote controlled, but also in civilian applications in areas like aerial mapping, reconnaissance, remote weather watch, and so on. BEML has entered into an agreement with Indian Institute of Technology Kanpur to develop a 25-kg class tactical UAV, which has a range of 200 km and an endurance in excess of three to four hours. The Primoco UAV, which we are developing along with Primoco UAV SE of the Czech Republic, has an endurance of 15 hours and a range of 200 kms. The 'BEML Primco One 150' is built to take off and land autonomously even in poor weather conditions. It can fly continuously for 15 hours, has a payload capacity of 1-30 kgs and has a 200 km-radio range. This UAV can be used for surveillance, monitoring, border patrolling and law enforcement. The platform is ready, with BEML and Primoco working to fine-tune it to Indian conditions. We are now looking at trials by potential customers."

BEML has entered into a partnership with the Indian Institute of Technology Kanpur for joint indigenous development and manufacture of a 25-kg class tactical UAV for the Armed forces. BEML has also signed a Memorandum of Understanding (MoU) with SKAT Systems, Russia, for joint manufacture of high altitude UAVs for Indian and global requirements and another with S'YOMKA S VOZDUHA, Russia, for the manufacture of marine drones and anti-drone systems. Rajasekhar estimates that there will be a demand for around 50,000 to 100,000 small to big UAVs from both the military and civil sectors. He disclosed that BEML has also ventured into the space arena, manufacturing products for ISRO's Geosynchronous Satellite Launch Vehicle (GSLV) Mark III. At Aero India 2021, BEML signed an MoU with CSIR-NAL for cooperation in the areas of advance composite and autoclaves, mini unmanned aerial vehicles and design and analysis of aircraft structure and systems.

This will help BEML to increase its footprint in the aerospace sector. Also, on display at Aero India 2021 was BEML's Medium Bullet Proof Vehicle (MBPV)-MkII, a boon for paramilitary forces like the Border Security Force (BSF) and the Central Reserve Police Force (CRPF). The bullet proof vehicle protects crew and troops from ballistic arm fire, hand grenades and fragment simulated projectiles, allowing troops to be transported and made operational in any counter-insurgency environment. BEML is offering the Indian Army their Artificial Intelligence (A.I.)-powered Medical Health Diagnostic System (MHDS), a mobile health and diagnostic station housed in a 20 feet container on a high mobility platform (the BEML TATRA 8x8/6x6 truck). In order to cover the medical diagnostic needs of troops in forward posts, especially in high altitude areas, the MHDS diagnostic station has a plethora of high-tech medical equipment.

During the Aero India 2021 air show, BEML entered into a number of MOUs with foreign and Indian companies. It has also entered into an MoU with Adani Defence Systems & Technologies Limited to provide mobility systems for armed vehicles such as wheels, armoured personal carriers, infantry combat vehicles, and main battle tanks, in addition to the development and production of jigs and fixtures for UAVs, air-borne structures, ground handling, and ground support equipment for airports.

Scientists to help Sikkim farmers grow 'Rs 3,000/kg' mushroom variety with enhanced Vitamin D

CSIR-CCMB

7th February, 2021



Scientists at the Council of Scientific and Industrial Research (CSIR) have started a project that will allow farmers in Sikkim to earn additional income by cultivating Vitamin D-enriched shiitake, a mushroom native to East Asia. The fragrant, large umbrella mushroom is mostly used in Japanese cuisine, but is becoming increasingly popular in India. The mushrooms are expensive because they grow in very specific conditions on logs of fallen trees. Although shiitake is cultivated in north-east India at present, researchers at CSIR-IHBT have created a new technology that allows these mushrooms to grow in controlled lab conditions much faster.

According to Rakshak Kumar Acharya, a microbiologist at IHBT, Palampur, the technology had been earlier transferred to a number of private companies in India. "In Delhi markets, it is sold at 3,000 per kg. Rates are very high compared to other mushrooms. This is because it has a very good smoky and meaty flavour," he told ThePrint. Three food-processing cluster centres are being set up in Sikkim in collaboration with the Ministry of Micro, Small and Medium Enterprises. Apart from facilities to grow the mushrooms, the centre will also have processing and packaging facilities. The government has allocated Rs 2.34 crore for each of the three cluster centres, and the foundation stone for the first centre was laid down on 29 January. Enhancing Vitamin D content. The team at CSIR-IHBT has also created a process to enhance the Vitamin D content in these mushrooms in the lab. According to the researchers, each cluster is likely to empower 250 households by providing additional income. While the centre will take a few months to be set up, the team is already training the local community on how to grow.

these mushrooms. “In natural conditions the amount of time that the mushroom takes to grow is dependent on the moisture and temperature. When it rains, the mushroom blooms. This happens once or twice in a year,” Acharya said. However, in captive cultivation it takes about 40 to 60 days for the shiitake to grow. The team also plans to expand the project to other states in the Northeast, such as Nagaland and Manipur, where shiitake cultivation from wooden logs is already popular

CSIR-CFTRI & GRAAM ink pact for techn-social collab to establish rural livelihood

CSIR-CFTRI

6th February, 2021

CSIR-Central Food Technological Research Institute (CFTRI) and the Grassroots Research and Advocacy Movement (GRAAM) have inked a memorandum of understanding to provide a mutual technical-social collaboration for establishing rural livelihood initiatives in India. In this connection, a technical training programme on convenience flour suitable for Stiff Porridge (Ragi Mudde Mix) and Malted weaning food (Ragi Shishuposhan) to the women entrepreneurs from Asare Sanjeevini Food Products, Bilikere, was conducted recently at CSIR-CFTRI.

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While speaking, Dr Basavaraju explained the uniqueness of this initiative and its convergence with the national interest like Atmanirbhara Bharath and Women empowerment. “GRAAM is working with all the four pillars of development, such as the community, the government, the corporate, and the civil society organisation. The government needs to think beyond livelihood and focus on rural wealth creation seriously.” Dr Matche welcomed all the participants and guests. While speaking, he mentioned that social initiative for women taken by GRAAM is unique and is result-oriented and feedback-driven, which made them join hands with the GRAAM. Dr Usha Dharmaraj compered the programme and thanked all the participants.

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[FNB News](#)

CCMB works on RNA platform for indigenous vaccines

CSIR-CCMB

6th February, 2021



The Hyderabad-based Centre for Cellular and Molecular Biology has started working on putting together a RNA (Ribonucleic Acid) platform, which will prove beneficial for the development of indigenous RNA-based vaccines and therapeutics. Speaking to Express, the CCMB Director, Dr Rakesh Mishra said the RNA platform is expected to be ready within six months.

What is an RNA platform?

In order to develop RNA-based vaccines or therapeutics, there are various steps involved including making a DNA construct, producing large amounts of DNA, extraction of RNA, formulation of RNA in lipid nanoparticles etc.

All these steps have to be integrated on a conceptual platform, which will be the RNA platform. Dr Mishra said that while these steps are taking place individually in CCMB and other CSIR laboratories, they need to be integrated. The scientists from CCMB will coordinate with the various laboratories and develop a single platform. He said that the CSIR approved the idea, the programme has been formalised and scientists have begun work. India stands to benefit hugely from such an indigenously developed RNA platform and it is not just because it can be used for development of RNA vaccines.

Dr Mishra said that there are various rare genetic diseases that are a huge problem in India but not in other parts of the world. With an indigenous RNA platform, scientists can develop the necessary drugs for such diseases and therapeutics for cancer.

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