

# CSIR in Media



CSIR Touching Lives

News Bulletin

1<sup>st</sup> to 10<sup>th</sup> October 2018





# Hope flickers for a revolution in cancer treatment

New drug aims at minimising damage to non-tumorous cells, reducing side-effects

SPECIAL CORRESPONDENT  
HYDERABAD

Anti-cancer drugs are known to affect normal cells other than the tumour cells, besides causing side-effects to patients. What if a drug is delivered to the targeted tumour cells minimising damage to other cells as well as reducing side-effects? What if it also helps in 'sensitising' the tumour to respond to treatment?

A collaborative effort by the Council of Scientific and Industrial Research's Indian Institute of Chemical Technology (IICT) with United States-based Mayo Clinic has led to the announcement of licensing of a jointly developed technology to provide a more effective therapy for cancer patients to a startup – NanoDev Therapeutics LLC, US – here on Tuesday.

## Lipid-based protein

Research conducted by a team of scientists in the last decade or so in these institutes has helped come out with a lipid-based protein which helps carry any of the existing cancer drugs to the tumour in a more targeted manner besides also 'sensitising' the affected area to better response to the drugs.

"It could provide a poten-



Debabrata Mukhopadhyay of Mayo Clinic and co-founder of NanoDev Therapeutics, US, with S. Chandrasekhar, director, IICT, in the city on Tuesday. ■ UJJAWAL DUBEY

**We are expecting human trials to start within 18 months. The final drug could come out in five years after necessary approvals.**

S. CHANDRASEKHAR,  
IICT director

tial better drug delivery to existing cancers once the human trials are completed. After successfully testing them on animals, we are expecting human trials to start within the next 18 months on patients at Mayo Clinic. The final drug could come out in five years after getting neces-

sary approvals," said IICT director S. Chandrasekhar and Mayo Clinic's Debabrata Mukhopadhyay.

Talking to newsmen after signing the pact for developing the innovative drug delivery procedure, the duo along with fellow scientists – IICT's Rajkumar Banerjee, D. Shailaja, Surendra Reddy, Sunil Mishra and Pranal K. Narayan of BITS-Hyd – explained that the joint patent developed is a 'platform technology' based on existing liposomal anti-cancer formulations that have been tested for effectiveness through pre-clinical testing

in tumours of pancreatic cancer, breast cancer, melanoma, lymphoma and leukaemia.

## For affordable care

NanoDev Therapeutics, of which Prof. Mukhopadhyay is a co-founder, in collaboration with Mayo Clinic, will now move towards clinical trials and beyond thorough regulatory approvals by the US Food and Drug Administration. "Once the drug is developed, we are going to provide affordable cancer treatment to patients here besides getting royalty," added Dr. Chandrasekhar.



# मेगा साइंस एक्सपो में शामिल हुए दो लाख लोग

मेगा साइंस एंड इंडस्ट्री में तकरीबन 2 लाख लोग शामिल हुए। फेस्टिवल में 10 हजार डेलीगेट्स के आने की उम्मीद थी। हालांकि करीब 19 हजार डेलीगेट्स शामिल हुए। केंद्रीय विज्ञान एवं प्रौद्योगिकी मंत्री डॉ. हर्षवर्धन ने मेगा साइंस एक्सपो के समापन समारोह के दौरान गोमतीनगर रेलवे ग्राउंड में कही। उन्होंने बताया कि लगातार बधाई संदेश आ रहे हैं, जो कार्यक्रम की सफलता बताने को काफी हैं। इस मौके पर विज्ञान भारती के सुधीर भारद्वाज, एक्सपो के कंवीनर नरेंद्र शर्मा मौजूद रहे।



सीएसआईआर न. 1

एक्सपो में कुल 900 से भी ज्यादा संगठन शामिल हुए। प्रदर्शनी में सीएसआईआर को पहला, डीआरडीओ दूसरा और सेंट्रल सिल्क बोर्ड को तीसरा स्थान मिला। कंवीनर नरेंद्र शर्मा ने बताया कि इसके साथ ही अच्छे प्रदर्शन के लिए 700 डेलीगेट्स को सर्टिफिकेट भी दिए गए।



## 8<sup>th</sup> International food convention for startups in Mysuru

CSIR-CFTRI

9<sup>th</sup> October, 2018

The Association of Food Scientists and Technologists India (AFST-I) is going to organize 8th International Food Convention #IFCON in Mysuru from December 12 to 15 with the theme "Holistic Approaches, for Start-Ups, Human Resource Training for Agriculture and Food Industry Gemmation." The convention will be hosted in the city in conjunction with CSIR-Central Food Technological Research Institute (CSIR-CFTRI) and DRDO-Defence Food Research Laboratory (DRDO-DFRL), Mysuru. Acronym to "HASHTAG" the word defined to connect the young minds, entrepreneurs and leaders in food fraternity. The convention specifically aims towards Start-Ups and the Human Resource Training in Food Science & Technology.

#IFCON curtain raiser function was held at IFTTC Auditorium of CFTRI in city recently. The event will be attended by all the stakeholders in Food Science & Technology, the academia, industry, researchers and entrepreneurs. This year the event is supported by MoFPI and FSSAI, the top food regulatory body in the country. The Food Expo will be one of the highlights of the event with about 80 industries exhibiting their products and services. Special pavilions will be displayed from CSIR-CFTRI, DRD-DFRL and FSSAI. The mobile food testing van of FSSAI will be displayed during the event. The expo will be open for general public on registration and by invitation, according to a press release from Dr. Sridevi Annapurna Singh, Chairperson of Publicity Committee and Dr. Aashitosh A. Inamdar, Organising Secretary, #IFCON2018.

**Published in:**

[KNN India](#)



## Award for NIIST principal scientist

CSIR-NIIST

8<sup>th</sup> October, 2018



components and structures. Dr. Rajan received the award from V.K. Saraswat, member, NITI Aayog, at Jaipur on October 2.

**Published in:**  
[The Hindu](#)

T.D. Rajan, principal scientist, CSIR-National Institute for Interdisciplinary Science and Technology (NIIST), has been conferred the NIGIS Award for Excellence in Corrosion Science and Technology instituted by the National Association of Corrosion Engineers.

Dr. Rajan was selected for the award for his contribution to the research on corrosion of aluminium alloys, composites and functionally graded materials that are used in the automotive, aerospace and defence sectors and the development of anti-corrosive coatings for engineering



CSIR-CFTRI

7<sup>th</sup> October, 2018

## CFTRI to supply 'Ragi balls' making machines to 'Indira Canteens'



Mysuru, Oct 7(UNI) The Central Food Technological Research Institute (CFTRI), a premier CSIR Lab in Mysuru, which had already developed 'Ragi Mudde'

(Ragi Balls) making machines and same has been extended to the Karnataka government run Indira Canteens in the State and supply 35 more such machines.

Each machine produces around 250 Ragi balls in an hour and only one person was needed to operate a machine. With the machine turning out to be useful to meet the demand for Ragi balls in the canteens, the State government has sought supply of upgraded machines that will produce 1,500 to 2,000 Ragi balls constantly.

According to CFTRI Director Jitendra Jadhav, "we have the technology that will be fine-tuned to cater to the needs of 35-40 canteens in Bengaluru city alone. The request for more machine indicates that people are happy with our technology which is user-friendly. The CFTRI had offered Dosa, Idli and chapathi making machines also to the Indira canteens.

Ragi mudde is a traditional food largely consumed in South Karnataka and a few other parts of South India. Ragi is considered a 'wonder food' because of its low Glycemic Index and nutrients like calcium, iron, and dietary fibre.

CFTRI is developing a mobile food processing laboratory to value add to produce. The mobile laboratory, which is in developmental stages and is expected to be ready soon, is likely to be on display at the 8th International Food Convention (IFCON) which will be held at CFTRI campus from December 12 to 15.

Mr Jadhav said the laboratory will give a complete solution to farmers on processing produce. This lab will be made available to farmers. If useful, more such mobile labs will be developed in other states, especially North India, he added.

CFTRI has signed a MoU with the Maharashtra government for establishing food processing Centers. These Centers will be equipped with technologies for processing pulses, turmeric, spice and other produces. “Out of 15 districts, these Centres will initially be set up in five. We will help farmers adopt our technologies.”

Dr Jadhav said the Telangana government has also come forward to take the help of CFTRI in setting up such Centers to aid farmers. Telangana is keen on technologies for paddy processing.

**Published in:**  
[United News India](#)



## City environment degrading, air pollution increasing: CSIR-NEERI

CSIR-NEERI

7<sup>th</sup> October, 2018



For Nagpurians, who are already experiencing a bumpy ride on roads, the latest findings on environment by CSIR-NEERI will come as a shocker. For, construction and developmental activities, including cement roads, flyovers and Nagpur Metro Rail works, have increased air pollution in the Orange City. The shocking revelation is made in the latest environmental status report 2017-18 prepared by CSIR- National Environmental Engineering Research Institute (NEERI). The report was submitted to general body of Nagpur

Municipal Corporation (NMC) recently. According to the report, during last 5 years, due to developmental activities, the environment across the city is getting degraded due to increasing level of pollutant build up from several emission sources. A team of NEERI monitored air pollution as per Central Pollution Control Board protocol at 10 sites covering various activities in the city. It found that the average PM<sub>10</sub> concentration has exceeded the limit of 100 mg/m<sup>3</sup> at nine places - Maskasath, Hingna, Buldi, Manewada, Shankar Nagar, Mankapur, Ashi Nagar, and Pipla locations while one location was within city limits. The average PM<sub>2.5</sub> concentrations during winter season at monitoring station were observed to be below the permissible limit of 60 mg/m<sup>3</sup> at six sites, while at four sites- Maskasath, Manewada, Buldi and Mankapur, the PM<sub>2.5</sub> concentrations exceeded the permissible limits. The average level of pollutants depicts that occasional peak of PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>2</sub>, SO<sub>2</sub>, and NH<sub>3</sub> concentration for 24 hours averaging within



the city limit. The heavy metal Arsenic level was found to be below the standard at all the monitored sites; however, metals like Lead, and Nickel were found to be exceeding the standard at Manewada. The report stated that busy urban areas with commercial activities, which give rise to pollution from area sources, surround city. Most of the hotels and restaurants are spread in the city area. NEERI suggested that to frame a policy of restricted permits for new installation that could use cleaner fuels and proper pollution control measures. The demolition and construction activities of Metro and Cement roads along with congestion and improvement of vehicles, mainly commuter was observed on all the roads. The report suggested for strict enforcement of regulators and also to divert the traffic of heavy vehicles from alternative routes. Report also recommended for hotels and restaurants to use cleaner fuels such as LPG and improved cook stove. It also suggested to prohibit the use of open chullah and burning of dry leaves around city. NEERI has suggested that crematorium in city limits should have green belt alongside or else they could be shifted away from the residential areas. The use of briquettes rather than wood and use of electric crematoria should be promoted. It also suggested to synchronised auto traffic signal system at all the intersection around the monument for better and smooth flow of vehicles with minimum halt period.

**Published in:**  
[The Hitvada](#)

### **CSIR-NEERI recommendations for improving environment**

- Create green buffers along roads
- Introduce wet vacuum sweeping of roads
- Maintain pothole-free roads for free flow of traffic to reduce emission and dust
- Install water fountains at major traffic intersection
- Take steps for blacktopping or pavement of road shoulders to avoid road dust
- Control dust pollution at construction sites through appropriate cover
- Ensure carriage of construction material in closed vessels
- Regular third party audits, green vigil team should provide feedback
- Follow regulatory norms strictly for all type of constructions and demolition work



## IICT scientist presented 'Scroll of Honour'

CSIR-IICT

6<sup>th</sup> October, 2018

**Hyderabad:** Council of Scientific and Industrial Research (CSIR)-Central Drug Research Institute (CDRI), Lucknow, has presented 'Scroll of Honour' to Dr P Srihari, principal scientist, Indian Institute of Chemical Technology, according to a press release.

The CDRI award was given to Dr Srihari for his research on drugs in Chemical Sciences and developing concise approaches to bioactive natural products and synthesis of new chemical entities for pharmacological activities. The award constituted a memento along with a citation and a cash prize of Rs 20,000 and was presented by Prof MR Satyanarayana Rao, former president, JNCASR, Bengaluru, who was the chief guest for CSIR Foundation day celebrations at CSIR-CDRI. Prof Tapas K Kundu, Director-CDRI, was also present.

**Published in:**

[Telangana Today](#)



## National Academy of Sciences remembers Prof Saha

CSIR-NML

6<sup>th</sup> October, 2018

Jharkhand State chapter of The National Academy of Sciences, India in association with CSIR NML organised Prof. Meghnad Saha Memorial Lecture, at NML's auditorium on Friday to celebrate the life and teachings of professor Saha, founder chairman, The National Academy of Sciences on his 125<sup>th</sup> birth anniversary. Dr Indranil Chattoraj emphasised on the role of Prof. Meghnad Saha in upliftment the standards on science and society on India. Arvind Sinha, chairman, NASI Jharkhand Chapter illustrated the glorious past of NASI and its present endeavours to uplift the status of science to reach masses. He also deliberated on the role of Prof. Meghnad Saha in shaping NAIS to what it is now. Prof. Sankar K. Pal (Professor, Distinguished Scientist & former Director Indian Statistical Institute, Kolkata), delivered the lecture on Evolution and challenges of Machine Intelligence to Data Science. The lecture deliberated on the anticipated role of machine learning in Big data technology revolution where India aims to strengthen its hold. He also cautioned the students to choose areas relevant to their education streams and not falter around the big hype names. More than 250 students attended the program from NTTF, Jamshedpur, Cooperative College, and Graduate College, who spent wonderful interactive time with Prof. Sankar Pal in the one-hour lecture. The program concluded with prize distribution of the NASI's Interschool Science Exhibition Competition held at RV School, Jamshedpur. Little Flower School, Jamshedpur bagged the first position, whereas Carmel Junior College, Jamshedpur and St. Xaviers School, Chaibasa bagged second and third spot. Chairman NASI Jharkhand Chapter also felicitated Rakhi Banerjee, Principal Rajendra Vidyalya Jamshedpur for her support towards chapter activities.

**Published in:**

[The Pioneer](#)



## NML imparts training to mining executives of Congo

CSIR-NML

4<sup>th</sup> October, 2018

A three-day corporate training programme on “Mineral Characterisation and Beneficiation” for executives of Mining Mineral Resources, Democratic Republic of Congo, organised by CSIR-National Metallurgical Laboratory (NML) kicked off today at NML. Indranil Chatteraj, director, CSIR-NML, Jamshedpur inaugurated the programme. A Mitra, chief scientist & head, RPBD, Ratnakar Singh, chief scientist, M.K. Mohanta, sr. principal scientist, Sobhana Dey and other scientists were present during the inaugural function.

The delegates are from Mining Mineral Resources, Democratic Republic of Congo. The objective of this corporate training program will covers different aspects of characterization and beneficiation techniques, principles and advances. In addition to class lectures there would be hands-on-training and demonstration in Laboratory and Pilot plant. The programme is aimed at apprise the participants on basics of mineral processing, challenges, and state-of-art approaches to improve upon beneficiation strategy and plant optimization.

Chatteraj welcomed the delegates who attended the inaugural programme. He mentioned about continuing the interaction on R&D in Mineral beneficiation.

Ratnakar Singh, chief scientist & head, Mineral Processing Division, CSIR-NML emphasised on the need of development of technology for processing of low-grade ores, qualified and trained manpower.

He briefed about the training programme. During the inaugural session, delegates gave their self-introduction.

**Published in:**

[The Pioneer](#)



# भारत पहले से ही वास्तुकला में पारंगत

सीबीआरआई रुड़की में **भगवान-ए सर्च** का किया गया शुभारंभ

जागरण संवाददाता, रुड़की: केंद्रीय भवन अनुसंधान संस्थान (सीबीआरआई) रुड़की में हैरिटेज भवनों के संरक्षण विषय पर दो दिवसीय तकनीकी प्रशिक्षण कार्यक्रम भगवान-ए सर्च का शुभारंभ किया गया। इसमें विभिन्न राज्यों के इंजीनियरिंग के छात्रों ने हिस्सा लिया।

संस्थान परिसर में बुधवार को कार्यक्रम का उद्घाटन करते हुए सीबीआरआई रुड़की के निदेशक डॉ. एन. गोपालकृष्णन ने कहा कि भारत प्राचीन काल से ही संरचनात्मक विज्ञान एवं वास्तुकला में पारंगत है, जिसकी जीवंत झलक हमारे विरासत भवनों में दिखाई देती है। जो सदियों से प्राकृतिक घटनाओं का सामना करते हुए अडिग हैं। हमारे देश की इसी महान संरचनात्मक और अभियांत्रिकी प्रतिभा के लिए इस



सीबीआरआई रुड़की में आयोजित तकनीकी प्रशिक्षण कार्यक्रम में उपस्थित वैज्ञानिक व अन्य।

प्रशिक्षण कार्यक्रम का आयोजन किया गया है। उन्होंने प्रतिभागियों को संस्थान के दूत के रूप में इन विरासत संरचनाओं के विषय में और अधिक गहन अध्ययन करने के लिए आधार सामग्री एकत्रित करने की जिम्मेदारी सौंपी। कार्यक्रम का संचालन करते हुए संस्थान के वरिष्ठ प्रधान वैज्ञानिक डॉ. अचल मित्तल

ने बताया कि इस कार्यक्रम का लक्ष्य हैरिटेज संरचनाओं के क्षेत्र में खोज, अध्ययन, अन्वेषण, प्रशंसा, अनुसंधान और संरक्षण पर छात्रों को प्रशिक्षण देना है। जिसे अंग्रेजी में भगवान-भारत हैरिटेज एंड ग्रैंडेयर रीवाइटेलाइजिंग नेशनल एसेट्स नाम दिया गया है।

इस दौरान कार्यक्रम की स्मारिका

भगवान ए सर्च का विमोचन भी किया गया। इस मौके पर डॉ. एन गोपालकृष्णन ने विरासत संरचनाओं की यांत्रिकी, सामग्री, निगरानी एवं अन्य चुनौतियां, डॉ. अचल मित्तल एवं प्रियंका ने भारतीय विरासत में परिचय, सिद्धार्थ बेहरा ने संरचनात्मक प्रणाली तथा विरासत संरचनाओं में संकट के संभावित कारण और हिना गुप्ता, डॉ. एलपी सिंह, डॉ. पीकेएस चौहान, देवदत्ता घोष, अस्वथी एमएस आदि ने भी अलग-अलग विषयों पर व्याख्यान दिया। कार्यक्रम में गुजरात से लेकर सिक्किम और तमिलनाडु से लेकर कश्मीर तक के लगभग एक सौ बीटेक के छात्रों ने प्रतिभाग किया। इस अवसर पर डॉ. एके मिनोचा, आरएस चिमोटे, डॉ. सुवीर सिंह, डॉ. अतुल अग्रवाल, डॉ. रजनी लखानी आदि उपस्थित रहे।



CSIR-NIO

3<sup>rd</sup> October, 2018

## NIO scientist to get award from PM

TNN | Updated: Oct 3, 2018, 10:41 IST



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A+



*Parthasarathi Chakraborty*

PANAJI: A senior scientist from the Goa-based National Institute of Oceanography (NIO), Parthasarathi Chakraborty, will be one of the 13 distinguished scientists from different institutions across the country to receive the Shanti Swarup Bhatnagar prize for 2018 for his valuable contribution to ocean development.

The award, named after the founder director general of the Council of Scientific & Industrial Research (CSIR), late Shanti Swarup Bhatnagar, comprises a citation, a plaque, a cash component of Rs 5 lakh and a monthly honorarium while in service.

The recipients' names were announced by professor Asutosh Sharma, CSIR's director general, at a function held in New Delhi to mark the council's foundation day. The awards will be handed over on January 1, 2019 by the Prime Minister.

**Published in:**  
[The Times of India](http://www.thehindu.com)



## Indira canteens to get 35 more 'ragi mudde' making machines

CSIR-CFTRI

2<sup>nd</sup> October, 2018



1,500 to 2,000 ragi muddes constantly. Speaking to presspersons on Monday, Jitendra Jadhav, director, CFTRI, said, "We have the technology that will be fine-tuned to cater to the needs of 35-40 canteens in Bengaluru city alone." The request for more machines indicates that people are happy with our technology which is user-friendly, he observed, and added that CFTRI had offered dosa, idli, and chapathi machines too to the canteens.

Ragi mudde is a traditional [food](#) largely consumed in south Karnataka, and a few other parts of south India. Ragi is considered a 'wonder food' because of its low Glycemic Index and nutrients like calcium, iron, and dietary fibre. CFTRI is developing a mobile food processing laboratory to value add to produce. The mobile laboratory, which is in developmental stages and is expected to be ready soon, is likely to be on display at the 8th International Food Convention (IFCON) which will be held at CFTRI campus from December 12 to 15. Mr. Jadhav said the laboratory will give a complete solution to

Authorities want machines that can produce 1,500-2,000 muddes an hour. The Central [Food](#) Technological Research Institute (CFTRI), a premier CSIR Lab in Mysuru, which provided two continuous 'ragi mudde' making machines to Indira Canteens in Bengaluru, has been asked to supply 35 more such machines. Each machine produces around 250 muddes an hour and only one person was needed to operate a machine. With the machine turning out to be useful to meet the demand for ragi mudde in the canteens, the State government has sought supply of upgraded machines that will produce



farmers on processing produce. This lab will be made available to farmers. If useful, more such mobile labs will be developed in other states, especially North India, he said. CFTRI has signed a MoU with the Maharashtra government for establishing food processing centres in districts. These centres will be equipped with technologies for processing pulses, turmeric, spice and other produces. “Out of 15 districts, these centres will initially be set up in five districts. We will help farmers adopt our technologies.”

Dr. Jadhav said the Telangana government has also come forward to take the help of CFTRI in setting up such centres to aid farmers. Telangana is keen on technologies for paddy processing.

**Published in:**  
[The Hindu](#)



## IMHANS to have new genetic research facility

CSIR-IGIB

1<sup>st</sup> October, 2018

### Pact signed with CSIR institute

Diagnosis of genetic disorders among children, such as primary immune deficiency disorders (PID), and detailed research into them will soon be made possible at the Kozhikode-based Institute of Mental Health and Neuroscience (IMHANS). The institute is one of the few in the government sector in the State to offer this facility. P. Krishnakumar, director, IMHANS, said the blood samples to detect genetic disorders such as PID were used to be sent to Mumbai and New Delhi earlier as the State had very limited facilities for the purpose.

The institute has now signed a memorandum of understanding (MoU) with the CSIR Institute of Genomics and Integrative Biology (CSIR-IGIB), New Delhi, to take up joint research and academic work. The MoU will help IMHANS develop its advanced neuroscience laboratory which is being set up as a part of the centre of excellence grant in mental health. Also, the staff at IMHANS could now be trained at the CSIR-IGIB facility in New Delhi and collaborative research projects could be taken up. It would go a long way in ensuring proper care to patients and improve clinical decisions.

The amenities in this laboratory include advanced molecular genetic facilities like real-time polymerase chain reaction equipment, Sanger's sequencer and other instruments required for bio-informatics, biochemical and neurophysiology studies. CSIR-IGIB is a premier research laboratory of the CSIR that carries out advanced research in biochemical technology and genomic including various aspects of molecular medicine.

**Published in:**

[The Hindu](#)



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