CSIR IN MEDIA

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NEWS BULLETIN

06 TO 10 DECEMBER 2021

AP To Set Up Genome Sequencing Lab With CCMB In Vijayawada

CSIR-CCMB

10th December, 2021

A genome sequencing lab, to help in identifying the genomic sequence of the COVID variant will soon be available in the State of Andhra Pradesh from next week.

As per reports, the State Medical Health Department has entered into an agreement with the Center for Cellular and Molecular Biology (CCMB) for the establishment of this lab. The facility will be set up at the Government Medical College in Vijayawada.

About 15% of the positive cases registered in the State so far are being sent to the Hyderabad lab for genome sequencing. With the threat of the Omicron variant looming and many people coming from different countries landing in AP, the samples of those who have tested COVID positive are being sent to CCMB in Hyderabad for genomic sequencing to identify the Omicron variant. This leads to a delay in the release of results.

Officials said that if a lab was made available in Vijayawada (which is close to the Gannavaram Airport), it would speed up the process and avoid delays in reports being released. State Medical and Health authorities are laying special focus on people arriving from South Africa, Botswana, the UK, Hong Kong are other risk countries. Chief Minister YS Jagan Mohan Reddy on the prevailing Covid situation in wake of the new variant, has directed officials to set up special medical teams at airports of Bangalore, Chennai, and Hyderabad and screen people who are arriving in Andhra Pradesh.

Commissioner for Health & Family Welfare, K Bhasker said that steps were being taken to start operations in the lab from next week.

Published in:

Sakshi

Chandrasekhar, new DST Secretary is firmly rooted to Hyderabad

CSIR-IICT, NEERI, NCL, CSMCRI, NGRI

09th December, 2021

"Extracting water from thin air"! Yes, it's not just a saying but a proven technology now. It was in early 2019 that Maithri Aquatech, a Hyderabad-based company set up a demonstration plant in the campus of the CSIR-Indian Institute of Chemical Technology (IICT). The company's Chief Ramakrishna and team explained the process of producing potable water from the machine. Their efforts were supported by the IICT Director, Dr S Chandrasekhar and other scientists of the laboratory. Today, Maithri Aquatech produces potable water and machines that are exported to a few foreign countries too.

It was an occasion to have a detailed discussion with the Director, IICT and the various technology and industry collaboration projects of the laboratory for me after a long gap. Ramakrishna and Dr Arun Tiwari, co-author with former President APJ Abdul Kalam of the autobiographical work, Wings of Fire, were also part of the discussion.

Therefore, when the announcement came on December 4 that S Chandrasekhar, a technologist-leader, was appointed as the Secretary, Union Department of Science and Technology (DST), under the Ministry of Science and Technology, it was exciting news to me.

Passionate about technology development, patents and industrial collaboration Dr Chandrasekhar is enterprising, proactive bordering on restlessness and open to new ideas. These traits should stand him in good stead and also turn testing in the bureaucracy ridden

DST, which he needs to steer. The DST, which is mainly a funding body with focus on promoting indigenous technologies and forging Industry-Institute projects that meet national needs and also cutting edge for the future.

Having missed becoming the Director General of the CSIR (parent organisation of IICT) narrowly in 2020, Dr Chandrasekhar has just two years to prove his mettle and make a mark in the big responsibility he has been vested with. He has gained experience as Director of IICT since 2015. In addition, he had held responsibility for couple of more labs like the NGRI, NEERI, Nagpur, NCL, Pune and CMSCRI, Bhavnagar.

The task ahead will not be easy for Dr Chandrasekhar as the Modi Government has been tough on research, science & technology funding and asking return on investments. Sections of scientists perceive the government as not very supportive of basic science and pushing into including ancient Indian, Vedic science, traditional and folklore based medicine etc., which need an organised, scientific pursuit and not random acceptance Union Ministers and BJP leaders have made statements citing ancient Indian wisdom and science that drew sharp criticism too.

From Osmania University to DST

The bespectacled, thin and medium built, 58 year old, Srivari Chandrasekhar is a product of Osmania University and a complete Hyderabadi. He did his graduation in Science from the Sardar Patel College, post graduation and PhD from the University Science College in the early 1980's.

It is interesting to note that the last time a scientist from Hyderabad who was appointed DST Secretary was Dr Palle Rama Rao, way back in 1991. He was then the Director of the Defence Metallurgical Research Laboratory (DMRL). Dr Rama Rao went on to play major role in DST (1991-95), Defence and Atomic Energy sectors, as well as the Vice Chancellor of the University of Hyderabad. On the other hand, scientists from Hyderabad and United Andhra Pradesh dominated the CSIR. Starting from Dr Hussain Zaheer, the founder Director of IICT

(appointed in 1948, when it was the Central Laboratories for Scientific & Industrial Research, started by the Princely State of Hyderabad), who served as the DG between 1962 to 1966. He was succeeded by Dr Y Nayudamma, leather technologist (1971-77) and Dr G S Sidhu (1981-84).

IICT, COVID-19 & global alliances

Dr Chandrasekhar joined the IICT and completed his doctorate under Dr A V Rama Rao, Director (1985-95) who was instrumental in transforming the then Regional Research Laboratory (RRL) into the IICT. It gave him opportunities to understand partnerships with industries in collaborative research.

He moved to the US and did a three year stint as a Post Doctoral Fellow at the University of Texas Southwestern Medical Center. He returned to CSIR-IICT in 1994. He is also an Alexander Von Humboldt Fellow. During the next 21 years, as a synthetic organic chemist with 290 publications and 19 patents, he steadily rose up the ranks to the Director's position in 2015.

As Director, he has initiated several national projects. One of them is developing Innovative Processes &Technologies for Indian Pharmaceutical and Agrochemical Sector Industries (INPROTICS-Pharma and Agro) wherein 15 important Active Pharmaceutical Ingredients (APIs) have been developed thus reducing imports.

During COVID-19, Dr Chandrasekhar the IICT focussed on developing cost-effective synthetic routes for APIs with a focus on COVID-19 treatment. Over 15 generic APIs are currently being repurposed for the mitigation of this pandemic. The lab helped CIPLA develop a version of Favipiravir. The various initiatives on COVID-19 related work got recognition when a team led by Chandrasekhar received the CSIR Technology Award 2021 in the life sciences category for contributing to the development of "a cost-effective and scalable process for the synthesis of a molecule used as an adjuvant" in Covaxin, the Vaccine developed by Bharat Biotech.

Drawing on his international experience, Dr Chandrasekhar has built joint programmes with Australia, France, Russia, USA, South Korea, Germany, Japan and UK and Africa. The Indo-French joint laboratory, built in IICT in collaboration with CNRS, France, is considered as a role model laboratory for partnerships. CSIR-IICT and RMIT, Australia also run a similar laboratory where students get PhD from RMIT, Australia. IICT also hosts start-ups on campus and provides mentorship.

Active role in Telangana Science Academy and Pharma:
Dr Chandrasekhar is an advisor to Telangana State Government providing guidance on the development of India's largest pharma city, spread over 1800 acres, which has been in the works for the past 6-7 years on the outskirts of Hyderabad. A winner of many national awards, he was honoured by the Telangana Government in 2017 as Eminent Scientist.

He played an important role in the formation and activities of the Telangana Akademy of Sciences post the formation of the State in 2014 as it transitioned from the erstwhile Andhra Pradesh Akademi of Sciences, says Arun Tiwari. He is the honorary Secretary of the Academy.

Published in:
Siasat

IndiGo Partners With CSIR-IIP For Sustainable Aviation Fuel

CSIR-IIP

09th December, 2021

IndiGo, in line with its vision to reduce the environmental impact of aviation, has signed an agreement with CSIR-Indian Institute of Petroleum (CSIR-IIP), Dehradun to become partners in leading the deployment of sustainable aviation fuel (SAF) in India and globally. Under this partnership, IndiGo and CSIR-IIP will enter into specific arrangements for projects for SAF based on techno-commercial feasibility and Environment, Social, and Governance (ESG) value creation.

IndiGo desires to be an anchor partner to such Institutes and oil refining companies in the future to address the core issue of Carbon Emissions and take a lead in demonstrating its commitment towards sustainable and responsible growth.

Ronojoy Dutta, Whole-time Director & Chief Executive Officer, IndiGo said, "As a responsible airline, we have always understood the importance of making a difference towards a greener future. We have partnered with CSIR-Indian Institute of Petroleum to ensure that we are working towards controlling emissions and in the process building supply chains for manufacturing and deploying sustainable aviation fuel in India and globally in the foreseeable future. IndiGo is committed to creating a platform to bring our business partners and customers together on key strategic ESG initiatives."

Dutta added, "The Agreement also cements IndiGo's commitment towards responsible growth, its desire to effectively manage its climate footprint in line with India's commitment to achieve Net Zero Emissions by 2070. We are committed to thought leadership in this

domain and are exploring innovative solutions to the challenges of the present and the future."

Dr. Anjan Ray, Director CSIR-IIP, added that "CSIR-IIP is committed to achieving India's goal of net-zero greenhouse gas emissions and indigenous, globally competitive, sustainable fuel production for a wide range of transportation and industrial uses We will be collaborating with IndiGo on projects that will help control emissions, reduce carbon footprint and align on UN Sustainable Development Goals. We believe that the synergies between IndiGo and CSIR-IIP can enhance national self-reliance as well as strengthen India's position in the global aviation sector."

Published in:
Travel Trends Today

Weekly Nutrition Packs Distributed To Severely Acute Malnourished Children

CSIR-CFTRI

08th December, 2021

Mysuru: CSIR-CFTRI launched a nutrition intervention initiative aimed at improving the nutritional status of the Severely Acute Malnourished (SAM) children in Mysuru with the participation of Women and Child Development Department, Government of Karnataka and Spirulina Foundation, Tumakuru. About 140 SAM children identified by the District Administration will be provided with Weekly Packs consisting of selected nutrition supplements such as Spirulina Chikki, High Protein Biscuits, High Protein Rusks, Energy Food along with Sesame Paste (burfi), Fortified Mango bar etc. for a period of 6 months. The children will be served with one of these supplements every day to enhance their macro and micro-nutrient status

The programme was launched by distributing the Weekly Packs to selected children in the presence of parents by chief guest A.M. Yogesh, Mysuru Zilla Panchayat CEO, on Dec. 6. In his inaugural speech, he expressed confidence that with proactive measures by both State Government Departments and CSIR-CFTRI, this programme would be a right step in addressing malnutrition in the district.

He also urged to undertake the case of Moderately Acute Malnourished (MAM) children, which numbers around 5,000 in the district in near future.

Speaking on the occasion, Dr. Sridevi A. Singh, Director, CSIR-CFTRI outlined the successful implementation of similar kind of nutrition interventions by the Institute for 250 Anganwadi children in Nanjangud taluk during 2016-17.

She said that the programme could be replicated in other districts with mobilisation of adequate resources by State Government through CSR channel.

Mahesh, Founder Director, Spirulina Foundation; Dr. K.H. Prasad, DHO; Dr. M.S.Jayanth, RCHO; Basavaraj, Deputy Director, Women and Child Development Department and Dr. Alok Kumar Srivastava, Chief Scientist, CSIR-CFTRI, Mysuru spoke on the occasion.

Published in:
Star Of Mysore

India's Bio-jet Fuel Technology Receives Military Recognition

CSIR-IIP

07th December, 2021

India's Ministry of Science and Technology announced that it has awarded provisional clearance to a domestically developed technology, which produced bio-based jet fuel for use on military aircraft. This technology was developed by the laboratory of the Indian Institute of Petroleum (IIP), along with the Council of Scientific and Industrial Research (CSIR). The ministry emphasised that the fuel underwent inspection and evaluation testing, along with trials over the last three years. The certification announced on the 29th of November marks an acknowledgment of the satisfactory results obtained from various ground and inflight testing.

The testing of airborne items is a complex and meticulous process, the laboratory insisted. The process involved intricate checks and balances while ensuring the highest levels of flight safety while operating with the biofuel. International aviation standards define the scope of these rigorous assessments, and without their approval, the technology would become only a potential failure. Fuel is the lifeline of any aircraft and requires a thorough analysis before being filled into manned flying machines. The approval is a big thing, considering it resulted after the culmination of many years of intensive research and active support from agencies like Indian Oil Corporation (IOCL), Panipat Refinery, and Hindustan Aeronautics Ltd. (HAL). This provisional clearance allows the Indian Air Force to use bio-based jet fuel, produced using CSIR-IIP's technology across all operational aircraft, thereby enabling commercialisation of the technology. This technology of producing Indian bio-jet fuel can be developed using cooking oil, tree-borne oils, short gestation oilseed crops, etc., typically grown off-season by farmers, and waste extracts from edible oil processing units. This

technology will also reduce air pollution by virtue of its ultra low sulphur content compared with conventional jet fuel and contribute to India's Net-Zero greenhouse gas emissions targets. Additionally, one of the biggest governing factors is it will aid in enhancing the livelihood of farmers and indigenous tribes engaged in extracting, collecting, and maintaining non-edible oils. The certification represents India's growing confidence in the aviation biofuel sector and is another step towards "Atmanirbhar Bharat", a programme introduced towards self-reliant and self-sufficient India.

Published in:
Bio Market Insights

NMPB And CSIR-CIMAP Lucknow Signed MoU To Promote The Production Of Medicinal Plants

CSIR-CIMAP

07th December, 2021

New Delhi: The National Medicinal Plants Board (NMPB) and the Council of Scientific and Industrial Research-Central Institute of Medicinal and Aromatic Plants, (CSIR-CIMAP), Lucknow signed an MoU today for extending joint collaborative efforts to promote the production of quality planting material (QPM) of medicinal plants.

The MoU will facilitate development of QPM of medicinal plants and herbs identified by NMPB and help in establishment of their nurseries for QPM development, promotion, conservation and cultivation of the appropriate medicinal plants in different agro-climatic zones. CSIR-CIMAP Lucknow, can also undertake research on mass multiplication, agro-technology development, Quality Planting Material generation of selected medicinal plants and herbs.

During the tenure of MoU, NMPB will work through its implementing agencies i.e. State Medicinal Plant Boards, State Horticulture Departments, Regional-cum-Facilitation Centres across India in conjunction and collaboration with CSIR-CIMAP Lucknow and support projects related to QPM Development of Medicinal Plants Species. Working under the Ministry of Ayush, NMPB is mandated to coordinate all matters relating to medicinal plants and support Policies and Programs for growth of trade, export, conservation and cultivation of medicinal plants.

Published in:

India Education Diary

Seaweed cultivation empowers rural population of Rameswaram

CSIR-CSMCRI

07th December, 2021

New Delhi: The life of Mutha Muthuvel Sambai has changed through training in seaweed cultivation and farming and exposure to the market demands of seaweed.

Cutting out the role of the middlemen, she is now directly selling products to the entrepreneurs, thereby increasing her income by around 50 per cent.

Mutha, a member of the Kanthariamman Society for Seaweed Cultivation and Seaweed Products Production Organization, who is cultivating seaweeds for the last 17 years, is among the 2,000 people trained by the Marine Algal Research Station, a unit of the Council Of Scientific And Industrial Research-Central Salt And Marine Chemicals Research Institute (CSIR-CSMCRI) located at Mandapam in Tamil Nadu.

Seaweeds are macroscopic algae, also termed as the 'Medical Food of the 21st Century' due to their usage as laxatives.

They are also used for making pharmaceutical capsules for the treatment of goiter, cancer, bone-replacement therapy, and cardiovascular surgeries.

These numerous uses make seaweed a product high in demand. Locals have been cultivating it for a long time but lacked the skills necessary for harnessing its full potential. This is where CSIR-CSMCRI stepped in and took up the initiative to impart necessary skills.

CSIR-CSMCRI's efforts have helped develop skills in cultivating seaweed, employing appropriate technology, enhancing biomass productivity of seaweeds for industrial requirements, and encouraging entrepreneurship development on seaweed-based activities among community-based organisations and Self Help Groups in Mandapam, Tamil Nadu, and Gujarat.

The trained locals include many women who are the breadwinners of their families are now earning handsome dividends through seaweed farming. Several women groups have benefited, and the capacity built through the CSIR-CSMCRI training and technology have ensured livelihood for the local population and also gone a long way in empowering them.

Published in:

Dtnext

CSIR-CFTRI

06th December, 2021

CFTRI lab to handle bulk of RT-PCR tests

MMCRI lab goes for facelift

SPECIAL CORRESPONDENT
MYSURU

With the COVID-19 testing target in Mysuru increased from 3,000 to 5,000 a day amid Omicron scare, the bulk of RT-PCR tests are now being handled by the lab at the CSIR-Central Food Technological Research Institute (CFTRI) with the Microbiology Department's Viral Research and Diagnostic Laboratory (VRDL) facility on the premises of K.R. Hospital shut for restoration.

The VRDL facility, which has been in the forefront of COVID-19 testing since April 2020, is not in operation since the last few days over a short-circuit incident and the structure housing the lab requires immediate repairs due to leakage from the roof.

Now that the scare of a new variant has triggered an alert and the government has asked the districts to ramp up testing to deal with any rise in COVID-19 numbers, the Mysore Medical College and Research Institute (MMCRI) has resolved to shift some of the staff from VRDL and the RT-PCR testing equipment to the CFTRI lab for the time being for handling the testing load until the VRDL gets ready for resuming tests.

The MMCRI Testing Centre (Viral Research and Diagnostic Laboratory) and the CSIR-CFTRI Testing Centre are the two public institutions that have been providing services to the public free of cost since the outbreak.

The CSIR-CFTRI came forward to support the district administration in the fight against the pandemic by setting up the testing centre and carrying out RT-PCR tests since testing was key for containing the spread of the disease.

VRDL is a part of a network of labs established across the country by the Department of Health Research, Government of India. The rise in the number of viral outbreaks and the resultant mortality from them had been cited as key reasons for the launch of a network of such hi-tech labs. The National Institute of Virology, Pune and the National Centre for Disease Control, Delhi will be the top laboratories for the network while the National Institute of Epidemiology, Chennai will be supervising the data generated by the network of labs.

Published in:
The Hindu

Technology development hub opened in CSIR-IMMT

CSIR-IMMT

05th December, 2021

BHUBANESWAR: Union minister of science and technology Jitendra Singh on Saturday inaugurated common research and technology development hub (CRTDH), high-resolution transmission electron microscope (HRTEM), polymetallic nodules (PMN) and field emission scanning electron microscope (FESEM) facilities in the CSIR-Institute of Minerals and Materials Technology (IMMT) Bhubaneswar.

CRTDH will provide technological solutions to entrepreneurs, to mentor entrepreneurs/startups and facilitate incubation of startups. This hub was established by the joint effort of CSIR-IMMT and the department of scientific and industrial research (DSIR) of the Centre. According to official sources, the main objective of the hub is to nurture and promote innovations in MSMEs and provide them knowledge-based support in the areas of new materials and chemical processes.

HRTEM is one of the most powerful tools to carry out technology-driven materials development research and multidisciplinary research in the areas of material and mineral science, nanoscience, nanotechnology, biological sciences and energy material. This facility will open new scopes in modern research opportunities for the scientists, research scholars, and faculties of educational institutes as well as industries engaged in material development.

PMN is a strategic ocean resource for India owing to the presence of crucial metals such as nickel (Ni) and cobalt (Co). Since there are no known commercially exploitable primary

resources in the country for Ni and Co, one of the ways forward is to explore the seabed resources.

A memorandum of understanding was signed between NRDC and CSIR-IMMT for InTEC project development. The Innovative Technology Enabling Centre (InTEC) has been established for translation of innovative technologies into successful business ventures through intervention of science and technology. At present InTEC hosts about five incubatees and several others in the pipeline. This MoU will further strengthen the position of InTEC. About 20 higher education institutions from different parts of the country are presently associated with InTEC, said official sources.

Published in:
Times Of India

CSIR-NGRI

05th December, 2021

Dr. V. M. Tiwari, Director CSIR-NGRI addressed at South, South-West Regions Official Language Conference organized at the Dr. Homi J. Bhabha Convention Centre, ECIL on 04-12-2021 as a Distinguished Guest.

హిందీ భాషాభివృద్ధికి ప్రతి ఒక్కరూ కృషి చేయాలి

ఎన్ఎఫ్సీ ఛైర్మన్ డాక్టర్ దినేష్ శ్రీవాస్తవ

కుషాయిగూడ, న్యూస్‌టుడే: అధికారిక భాషా హిందీ అభివృద్ధికి ప్రతి ఒక్కరూ కృషి చేయాలని న్యూక్లియర్ ఫ్యూయల్ కాంప్లెక్స్(ఎన్ఎఫ్సీ) ఛైర్మన్, సీఈఓ డాక్టర్ దినేష్ శ్రీవాస్తవ పేర్కొన్నారు. కేంద్ర హోం మంత్రిత్వ శాఖ అధికార భాషా విభాగం ఆధ్వర్యంలో శనివారం ఈసీఐఎల్‌లోని డాక్టర్ హోమీ జే బాబా కన్వెన్షన్‌లో నిర్వహించిన దక్షిణ, దక్షిణ - పశ్చిమ ప్రాంత సంయుక్త ప్రాంత అధికారిక భాషా సదస్సును ఆయన ప్రారంభించారు. ఈ సందర్భంగా మాట్లాడుతూ... ఆత్మనిర్భర్‌లో భాగంగా హిందీ భాషా వివృద్ధికి కేంద్ర ప్రభుత్వం 'కంఠస్థ' వెబ్‌సైట్‌ను రూపొందించిందని తెలిపారు. ఈ సైట్‌లో హిందీ పదాలు, వాటి అర్థాలు సులభంగా తెలుసుకోవచ్చని చెప్పారు. ఆధికార భాషా విభాగం సంయుక్త కార్యదర్శి డాక్టర్ మీనాక్షి జౌలి, సీఎస్ఐఆర్ హైదరాబాద్ డైరెక్టర్ డాక్టర్ వి.ఎం.తివారీ.. హిందీ భాషా విశిష్టత, ప్రాముఖ్యాన్ని వివరించారు. ఈ సందర్భంగా ప్రతిభ చూపిన వారికి బహుమతులు, ప్రశంసా పత్రాలను అందజేశారు. హోం మంత్రిత్వ శాఖ డైరెక్టర్లు టీఎల్ మీనా, ఆనంద్‌కుమార్ తదితరులు పాల్గొన్నారు.

జ్యోతి వెలిగిస్తున్న డాక్టర్ దినేష్ శ్రీవాస్తవ
పాల్గొన్న డాక్టర్ మీనాక్షి జౌలి తదితరులు

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Eenadu, Sakshi

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