

CSIR-North East Institute of Science & Technology, Jorhat  
Connecting Science & Technology for a Brighter Tomorrow

## Roadshow on "Brewing Bio-entrepreneurship in Jorhat" held at CSIR-NEIST



From top: Dr G Narahari Sastry, Director, CSIR-NEIST presenting an overview of CSIR-NEIST activities; Dr Mrutyunjay Suar, CEO, KIIT Technology Business Incubator, Bhuvaneshwar delivering his talk on BRTC & BIRAC support schemes at the event.

CSIR-NEIST in association with BIRAC eastern region team, KIIT Technology Business Incubator, Bhuvaneshwar organized a roadshow on "Brewing Bio-entrepreneurship in Jorhat" on 29 July 2019. The primary aim of the programme was to spread awareness about various support scheme of BIRAC and mentor budding student innovators/researchers towards entrepreneurship particularly in the field of Biotechnology and allied areas. The event covered series of lectures and interactive discussion among the experts and participants.



From top: Dr KSMS Raghavarao, Director, CSIR-CFTRI, Mysore delivering his lecture on opportunities in the area of Food, Agri, Health & Nutrition; Mr Rajeev Aiyappa, Partner, Plataforma Capital, Singapore speaking about investment opportunities in Agri & Food sectors.

Dr G N Sastry, Director, CSIR-NEIST, welcomed the participants and presented an overview about CSIR-NEIST and its focus areas of research such as, Herbal Formulations and Environmental Care and further mentioned that Agri, Food & Nutrition is another area where the Institute is actively working. He explained the multidisciplinary approaches including chemistry, biology, engineering and data sciences which are all aligned within the umbrella of Herbal Formulations and Environmental Care. He also emphasized the importance of documentation and digitalization of biodiversity and traditional knowledge of North East India with the help of AI and ML.

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Dr Mrutyunjay Suar, CEO, KIIT Technology Business Incubator, highlighted the activities of KIIT-TBI and various nuances of starting start-ups in an Indian ecosystem. He informed the various support schemes and fellowships offered by DBT-BIRAC viz., BIG, SHIP, SRISTI, CRS, etc. for budding entrepreneurs in the Biotechnology sector. He further provided background information on the BIG grant, the application process, funding process-flow, guidance on writing proposals etc. Encouraging the participants to take advantage of BIG scheme, he expressed hope that at least 10 enterprises should come out of Jorhat. Dr Sanjay Kumar, Director, CSIR-IHBT, through Video Conference gave a brief description on various food and post-harvest technologies of IHBT which can be adopted and implemented by entrepreneurs from North East. He eagerly extended his support to CSIR-NEIST for collaboration and adopting the technologies for commercialization in the North East India. Dr KSMS Raghavarao, Director, CSIR-Central Food Technological Research Institute, Mysore spoke about opportunities in the area of Food, Agri, Health & Nutrition. He gave an overview of the post-harvest processing plants established by CFTRI in North East. Dr Raghavarao also projected various value added nutrition based products like energy bar, fruit concentrate, high protein biscuits launched in NE and mentioned their association with NERMAC for many of outreach activities in the North East. He suggested in bringing in cultivation of valuable raw materials in the rural areas for which the market will lie in the major urban industries. Dr Jatin Kalita, Head RPBD, spoke about different technologies developed at CSIR- NEIST and briefly described about the success stories of various technology transfer to different industries. Dr. Priyangshu Sharma, Co-Founder, Innotech Intervention Pvt. Ltd., Guwahati, spoke about his journey and experiences in the start-up industry. As a beneficiary of BIRAC support scheme (BIG) himself, he mentioned that BIG can be a game changer for budding bio-entrepreneurs. He informed the various stages of BIG scheme and the recent 15<sup>th</sup> call for proposals under BIG scheme by DBT-BIRAC. Mr Rajeev Aiyappa, Partner, Plataforma Capital, Singapore



Participants and organizing members from CSIR-NEIST and KIIT-TBI and various experts.

spoke about investment opportunities in the sector of Agri & Food. He further shared his experiences as a venture capitalist in these sectors. Mr Subhas Bhattacharjee, Retd. MD, NERMAC, Guwahati in his brief remarks shared valuable insights regarding commercialization and marketing aspects of products. Mr Ashwini K Mishra, DNA Xperts, New Delhi, spoke about his firm and its activities expanding from molecular, Immunology to Biochemistry. Dr Devendra Biswal, Co-Coordinator cum Senior Information Officer, Bioinformatics Centre, NEHU in his brief remarks, spoke about vast scope available in creating value from bioresources and biodiversity from the NE region. In the interactive session with the students and faculty members, the expert team answered various queries posed by the participants and encouraged the ideas and also suggested the way forward to draft proposals under different schemes.

**CSIR-NEIST transferred improved variety of Lemongrass (Jor Lab L-8) for commercial cultivation & processing**

CSIR-NEIST transferred its agro-technology package on improved variety of Lemongrass (Jor Lab L-8) to M/s S S Enterprise, Bokajan, Assam and Mr Amitava Dhar, entrepreneur from Agartala, Tripura. Jor Lab L-8 has higher oil yield of 1% essential oil and herbage yield of 260q/ha (4 seasons/ environment) as compared to existing varieties which yields 0.4-0.8% essential oil. On signing of the agreement, demonstration of the cultivation practice and its oil processing was provided to the li-

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-censees on 3 July 2019 and 15 July 2019 respectively under the supervision of Dr Mohan Lal, Scientist & technology team leader.



From top: Dr G Narahari Sastry, Director, CSIR-NEIST handing over agro-technology package of Lemongrass to Mr Sankar Das, Proprietor, S S Enterprise, Assam on 3 July; Mr S C Kalita, Scientist-in-charge, CSIR-NEIST handing over agro-technology package of Lemongrass to Mr Amitava Dhar, Agartala, Tripura on 15 July.

### NEIST Science Forum Talk held

- **Speaker:** Mr Prachurjya Dutta, CSIR-SRF, BSTD

**Topic:** Insects- A solution for food and health security

**Date:** 19 July 2019

### Dr Shekhar C Mande, Director General, CSIR & Secretary, DSIR, Govt. of India visited CSIR-NEIST Branch Lab, Imphal



Dr Shekhar C Mande (front third from right), Director General, CSIR & Secretary, DSIR, Govt. of India along with Director, CSIR-NEIST, Dr G Narahari Sastry and staff members.

Dr Shekhar C Mande, Director General, CSIR & Secretary, DSIR, Govt. of India visited CSIR-NEIST branch lab, Imphal on 15 July 2019 as a part of his tour to Imphal. Dr Mande was received by Dr G Narahari Sastry, Director, CSIR-NEIST in presence of Dr H B Singh, Scientist-in-charge, Branch Lab and staff members. Dr Mande was apprised about the activities of the branch which is engaged mostly in propagation of aromatic & medicinal plants, biodiversity, bio-prospection, designing and development of products based on ethnic designs & materials and traditional knowledge. Dr Mande in his address to the staff urged for strengthening of CSIR activities for the development of Manipur state and the region.

### CSIR-NEIST distributes 'Herbal Anti-Arthritis' product to the needy people in Assam, Arunachal Pradesh and Meghalaya

CSIR-NEIST distributed its Herbal Anti-Arthritis Ointment in various parts of Assam, Arunachal Pradesh and Meghalaya as a part of the initiative to provide healthcare product to the needy people of NE region which started in June 2019

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From top: Distribution of CSIR-NEIST's Herbal Anti-Arthritis product in Noshilliang, Shillong; Naharlagun, Itanagar and Amguri, Assam.

under the leadership of Dr G Narahari Sastry, Director, CSIR-NEIST. The Institute distributed ointment for free of cost to the people of Nongshilliang, Shillong; Naharlagun, Itanagar; and Amguri, Assam. Herbal Anti-Arthritis is an unique product for arthritic pain which has already received appreciation from people across the country. Dr G Narahari Sastry along with a team

of scientists and technical officers from the Institute visited these places and interacted with the local people and apprised them about the product and the activities of the Institute for the benefit of the region.

**CSIR-NEIST organized interactive workshop with Gauhati University**



Participants of the workshop from CSIR-NEIST and Gauhati University along with Dr G Narahari Sastry, Director, CSIR-NEIST.

A two-day interactive workshop between CSIR-NEIST and Gauhati University was held during 3-4 July 2019 at CSIR-NEIST under the leadership of Dr G Narahari Sastry, Director, CSIR-NEIST. The main objective of the workshop was to understand the knowledgebase & expertise available at CSIR-NEIST and Gauhati University and identify potential areas for collaboration for the benefit of NE Region. A team of 15 faculty members from the Department of Chemistry and Department of Computer Science & Engineering/Data Science/Bioinformatics, Gauhati University participated in the workshop along with CSIR-NEIST scientists. The two-day programme covered intensive discussions on strengthening activities through joint programmes in Artificial Intelligence, Machine Learning and Data Science applications for documentation of biological resources, disease related studies, etc. relevant to the NE region.

## CSIR-NEIST participated at DBT Consultative Meeting of Scientific and Academic Leaders of NER

Dr G Narahari Sastry, Director, CSIR-NEIST participated in the Consultative Meeting of Scientific and Academic Leaders of NER organized by DBT at IIT, Guwahati during 27-28 July 2019. The meeting was held under the NER Working Group for Evaluation of Schemes implemented by DBT to recommend Biotechnology Road Map for NER during the next five years. Dr Sastry presented activities of CSIR-NEIST in NE region and areas for development of NER through Biotechnology based research such as Food, Nutrition, Agriculture, Environment and Oil.

## CSIR-NEIST organized brainstorming session with Defence Research Laboratory, Tezpur



Meeting in progress with DRL Tezpur chaired by Dr G Narahari Sastry, Director, CSIR-NEIST.

CSIR-NEIST organized one day interactive session with Defence Research Laboratory (DRL), Tezpur on 2 July 2019 to formulate joint programmes on Herbal Formulations, Environmental Care and application of Data Sciences. A team of scientists from DRL led by its Director, Dr Sanjay K Dwivedi visited CSIR-NEIST on 2 July and participated in the discussion.

## Papers published

### In International Peer Reviewed Journals

- Varma A K, Sahoo A K, Saikia B K, Das T: Petrographic controls of coal from Ib valley Basin for carbon nano-products formation, *International Journal of Coal Geology*, 2019, 2: 103211. **Highest Impact factor Paper (IF-5.330).**
- Gohain A, Sarma R K, Debnath R, Saikia J, Singh B P, Sarmah R, Saikia R: Phylogenetic affiliation and antimicrobial effects of endophytic actinobacteria associated with medicinal plants: prevalence of polyketide synthase type II in antimicrobial strains, *Folia Microbiologica*, 2019, 64 p: 481-496.
- Neog K, Dutta D, Das B, Gogoi P: Aryne insertion into the PO bond: one-pot synthesis of quaternary phosphonium triflates, *Organic Biomolecular Chemistry*, 2019, 17(26), p: 6450-6460.
- Deori S, Choudhary R, Tiwari D, Kumar A: Hdm-4 Deterioration Modelling: Validation and adoption for flexible pavements with modified bituminous road surfacing, *The Baltic Journal of Road and Bridge Engineering*, 2019, 14(2), p: 208-226.

## Farewell

The following member(s) of the staff have retired from Council's service on superannuation from CSIR-NEIST on 31 July 2019.

1. Mrs. Aleya Rahman, Sr. Technician (2)