

## **TWO-DAYS WEBINAR ON "FERMENTATION: INTERPLAY OF MICROBES, IMMUNITY & NUTRITION"**

**February 04, 2023:** A two days webinar on “**Fermentation: Interplay of Microbes, Immunity and Health**” was organized by the Dept. of Rural Development and Agricultural Production (RDAP), North-Eastern Hill University (NEHU), Tura campus, with due support from the Biotechnology Industry Research Assistance Council (BIRAC), a Government of India initiative during February 03<sup>rd</sup> -04<sup>th</sup>, 2023. The huge gathering of more than 2000 participants across the GoTO Meeting platform and YouTube live streaming was welcomed by *Ms. Bethsheba Basaiawmoit*, Research Scholar, Department of RDAP, NEHU, Tura campus and apprised about the ancient practise of fermentation in the north-eastern region (NER) of India as a way of food preservation. *Dr. B.K Mishra*, Head, Department of RDAP, NEHU, Tura Campus thanked the participants for their overwhelming response and informed the gathering about the innovative fermented products developed in NEHU, Tura Campus. This was followed by a vivid and lucid portrayal of recent activities and achievements of NEHU, Tura Campus, by the honourable campus-in-charge, *Prof. Sujata Gurudev*. *Dr. Sujit Das*, Technical Officer, BIRAC, briefed the attendees about BIRAC’s commitment to excel in innovation and entrepreneurship. On the first day of the webinar, speakers across Academia and Industry shared their expertise and valuable insights on the role of prebiotics, probiotics and post-biotics towards health and nutrition, their use in the development of fermented foods, the challenges faced and the ways to resolve. The first speaker of the session *Shri. Sameer Saxena*, Head, Quality Assessment & New Product Development (QA & NPD), Anand Milk Union Limited (AMUL), Gujarat Cooperative Milk Marketing Federation, Gujarat displayed the reach, and achievements of Amul as a brand and the range of fermented food, beverages and probiotic products at Amul’s disposal. Shri Saxena also showcased the marketing and promotional campaigns executed successfully in bringing awareness to consumers. *Dr. J.B Prajapati*, Chairman, Verghese Kurien Centre of Excellence, Gujarat navigated through the marketing trends of fermented foods. His session focused on the health benefits of probiotics, and the challenges and methods of fermented product development using probiotics. *Dr. Neerja Haleja*, Secretary, Gut Microbiota and Probiotic Science Foundation, Delhi and Head, Science and Regulatory Affairs, Yakult Danone India Pvt. Ltd explained the significance and the role of gut microbiota in maintaining the balance of the health system in an individual. Dr Hajela also emphasized the mechanism of action of probiotics in the gut. *Dr. Prakash Halami*, Chief Scientist, Professor - Academy of Scientific & Innovative Research (AcSIR), and Head,

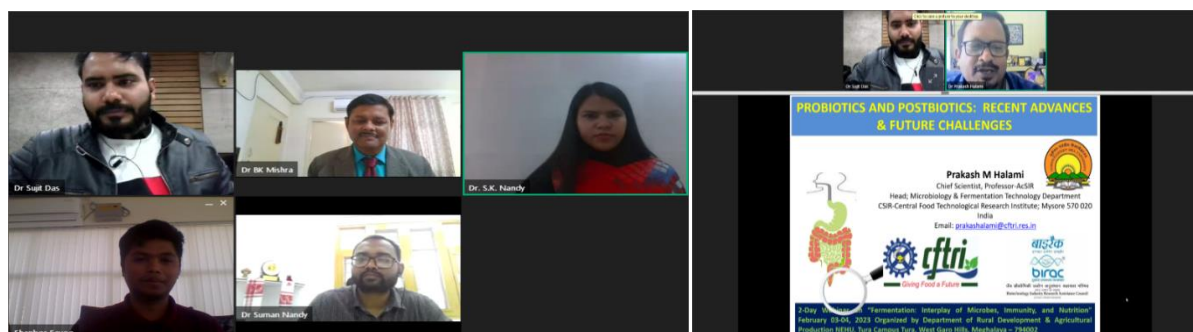
Department of Microbiology and Fermentation Technology; Food Protectants & Infestation Control, CSIR-CFTRI, Mysore illuminated the audience about recent advances and future challenges in the field of probiotics and postbiotics, the types of postbiotics, their sources, implications towards health benefits, and the production and characterization method of the post-biotics. The final speaker of the day *Dr. Gopal Ramakrishnan Gopi*, Chief Operating Officer, FGSV Bioprocessing Plant, Thanjavur, Tamil Nadu Thanjavur, Tamil Nadu, elaborated on the latest advances in biological preservatives with special reference to nisin. Dr Gopi highlighted the development of nisin and its integration into different foods as a preservative. He also highlighted the challenges and issues in the fermentation of nisin and the modulation of the upstream and downstream processes for optimal production. The webinar was concluded by *Mr. Shanbor Sayoo*, Lab Assistant, B3I Facility, NEHU Tura Campus through a summarization of the day one activities.

The second day of the webinar was centred on innovations in fermented foods and regulatory compliances. *Ms. Alva Margareth Kharkongor*, Program Manager, BioNEST Facility, NEHU, Tura campus began the proceedings with a note on the need for innovation in the fermentation industry for a wider reach while maintaining a balance with the food safety standards. The day started with a briefing from *Dr. Shilpi Gupta*, Chief Manager-Technical, BIRAC, on the role of BIRAC in fostering public-private partnerships for innovative product/technology development, through targeted funding schemes, mentorship and incubation program that handholds Start-ups and innovators throughout, right from ideation to commercialization. This was followed by a talk from *Dr. B. Sesikeran*, Former Director, ICMR - National Institute of Nutrition, Hyderabad, Telangana detailing the process of evaluating the safety and efficacy of bioactive ingredients in fermented foods & beverages in a journey to create functional food. In the next session, *Dr. Navneet Singh Deora*, Chief Technical Officer, Blue Tribe, a pioneer in plant-based meat shared his insights about innovations in fermented foods, our misconceptions about processed foods and the necessity of plant-based alternatives to meat to reduce the carbon footprint and to control the climatic catastrophe we all are riding upon. *Dr. Rubina Mandlik*, Research Officer, Hirabai Cowasji Jehangir Medical Research Institute, Pune, Maharashtra discoursed about regulatory and safety guidelines endorsed in India for manufacturing fermented foods such as milk-, soya-, meat-based products, fermented fruits and vegetables and beverages, etc. *Dr. Mandlik* also navigated through the FSSAI registration procedure required for obtaining the licensing for food businesses in detail. This was followed by a brief session outlining the bio-resources in NER and the role of BioNEST in promoting bio-entrepreneurship and innovation in the region through proper utilisation of the resources by *Dr.*

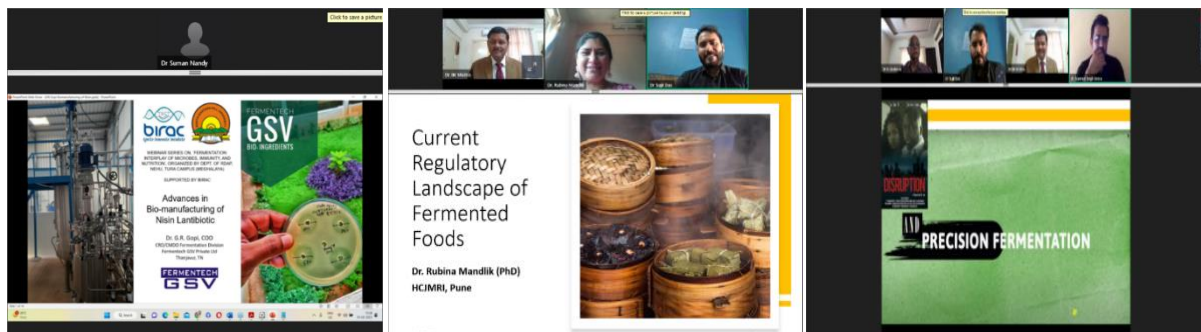
*Suman Kr Nandy*, CEO, BioNEST Facility, NEHU Tura Campus. Finally, the webinar met its conclusion with a summary of the daylong brainstorming sessions and a vote of thanks proposed by *Ms. Barsha Saikia*, Research Scholar, Department of RDAP, NEHU Tura campus. The organisers thanked the innovators, entrepreneurs, startups, MSMEs, industry people, faculties, scientists, post-doctoral fellows, scholars, students, and enthusiasts across the country for making the webinar a success through their patient yet highly interactive presence and their interest in fermentation. Be fermented, Be Functional.

Those who have missed the program live can be compensated by streaming on YouTube:

Day 1: <https://youtu.be/57H4QFxxinw>



*Fig. Snapshot of day 1 webinar on the theme Fermentation – Advances in prebiotics, probiotics, postbiotics and nutraceuticals*



*Fig. Snapshot of day 2 webinar on the theme Innovation and Regulatory Compliances for Fermented foods.*