

FoodPro

CSIR - CFTRI Newsletter

July - September 2024



Food Processing | Nutrition | Innovation | Value Addition
Traditional Foods | Food Machinery | Shelf Life | Food Quality
Nutraceuticals | Centre of Excellence | Pre & Probiotics | PMFME
Skill Development | Technology Transfer | Incubation



ಸಿ.ಎಸ್.ಐ.ಆರ್-ಕೇಂದ್ರೀಯ ಆಹಾರ ತಂತ್ರಜ್ಞಾನ ಸಂಶೋಧನಾಲಯ, ಮೈಸೂರು
ಸಿ.ಎಸ್.ಐ.ಆರ್ - ಕೇಂದ್ರೀಯ ಆಹಾರ ತಂತ್ರಜ್ಞಾನ ಸಂಶೋಧನಾಲಯ, ಮೈಸೂರು
CSIR – Central Food Technological Research Institute, Mysuru

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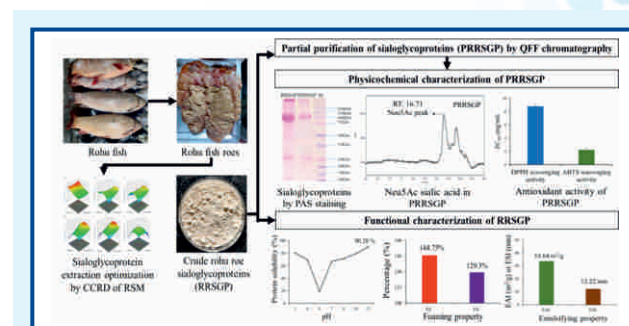
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Research Highlights

Valorisation of fish by-product (fish egg) for the sialoglycoproteins under waste to wealth approach

Fish production has been increasing every year due to the growing demand. India is the third largest fish producer, with about an 8% share in fish production globally. Furthermore, India ranked second in aquaculture production with 17.4 million metric tonnes of fish production in 2022-23. Fish production has been increasing continuously, but at the same time, a remarkable amount of fish processing byproducts are also generated from the fish processing industry and the domestic fish market. Fish roes (by product) considered as waste garbage and disposed of without recovering the valuable molecules, creating environmental and disposal problems. The study investigated extraction optimization and characterization of sialoglycoproteins from rohu (*Labeo rohita* fish) roes/eggs. Sialoglycoproteins are glycoproteins that contain sialyl oligosaccharides covalently attached to a polypeptide chain via their reducing end. Aquatic-derived sialoglycoproteins possess various bioactivities, including antioxidant, antitumor, and osteogenic properties. The optimum conditions for maximum sialoglycoproteins (70.49%) extractions, which were found at 1.25M NaCl, 1:32.5(w/v) solid-to-liquid ratio, 47.5°C temperature, and 3 hours' time. Extracted sialoglycoproteins are composed of 97kDa and 27kDa glycoproteins. Partially purified sialoglycoproteins were the N-glycosylated sialoglycoproteins containing Neu5Ac as a type of sialic acid. The protein moiety of sialoglycoproteins is composed of essential and non-essential amino acids, whereas glycan moiety is

comprised of 56.04% neutral monosaccharides and 43.96% amino sugars. Tyrosine and glutamate as primary amino acids and mannose and N-acetyl galactosamine as dominant neutral and amino sugar were noticed in the sialoglycoproteins. Intestinally, sialoglycoproteins exhibited antioxidant activity with EC₅₀ value for DPPH (8.79mg/ml) and ABTS (2.21mg/ml). Further, fish roes sialoglycoproteins displayed better protein solubility (except pH-6), foaming, and emulsification properties. Thus, fish roes/eggs can be a promising source for sialoglycoprotein extraction and can be used as a bio-functional ingredient in food and nutraceutical applications. Furthermore, the exploitation of rohu roes for sialoglycoprotein extraction would aid in overcoming waste disposal issues, reduce environmental pollution, and also provide additional revenue to fish farmer communities and the fisheries sector.



(Source : Venmarath, Anushma; Karkal, Sandesh Suresh; Suresh, P.V.; Kudre, Tanaji G., Extraction optimization, partial purification, and characterization of sialoglycoproteins from *Labeo rohita* roes, *Int J Biol Macromol*, 2024, 274, art. no. 133462.)

New Technologies

Probiotic Carrot Nectar

Probiotic carrot nectar is a vegetable-based beverage developed by incorporating the probiotic bacterium *Lactiplantibacillus plantarum* MCC5231 in carrot nectar. Delivery of the probiotics through a non-dairy-based food system is a favourable option due to the problems associated with dairy-based products, such as lactose intolerance, milk allergies, etc. This vegetable-based carrot nectar supplemented with *L. plantarum* is a novel concept meeting the FSSAI's nectar specification criteria and fulfills more than 50% of daily requirement of Vitamin A.



Instant Masala Tea Premix

Instant Masala Tea Premix is a delightful blend that

brings the authentic taste of traditional Indian masala tea into the convenience of modern life. Crafted with natural ingredients, including stabilized tea flavour and a carefully curated mix of aromatic spices such as cardamom, ginger, cloves, and cinnamon, this ready-to-use premix offers a rich and flavourful tea experience without the hassle of brewing and measuring ingredients. Experience the rich flavor of premium tea leaves and aromatic spices. The tea is perfectly packaged in single-serving sachets, allowing for quick and easy preparation. Whether you are at home, in the office, or on the go, enjoying a comforting cup of masala tea has never been simpler. To cater to diverse tastes and dietary preferences, Instant Masala Tea is available with a variety of sweeteners, including regular sugar, jaggery, low-calorie sweeteners, and sugar-free options. With just four simple steps for preparation and a longer shelf life, this delightful beverage ensures that everyone can savour the warm, spicy comfort of masala tea anytime, anywhere.



Technologies Transferred

- ✦ Tamarind juice concentrate
- ✦ Heat resistant white sesame seeds
- ✦ Chikki /Nutra chikki (3 formulations)
- ✦ Groundnut (Peanut) butter
- ✦ Pulse based papads
- ✦ Osmo-air dried fruits (Amla, Jackfruit, Pineapple & Mango)–All 4
- ✦ Instant products from Moringa leaves
- ✦ Energy Food - new formulation
- ✦ Multigrain cereal-legume bar and Puffed rice bar
- ✦ DOLYMIX, A Ready to Use Mix for Soft and enhanced number of IDLYS
- ✦ Process for production of semolina (sooji/rava) from millets and preparation of multimillets semolina
- ✦ Instant Upma mix from millets and multimillets semolina
- ✦ Instant Rava idli mix from millets and multimillets semolina
- ✦ Instant Halva mix from millets and multimillets semolina
- ✦ Tutti fruity (Papaya/ Carrot)
- ✦ Bifido curd
- ✦ Coffee concentrate
- ✦ Instant gravy mixes: Dehydrated
- ✦ Shelf stable varieties of curry paste for vegetarian & non-vegetarian traditional cuisines - Chicken curry paste, Shahi Paneer paste, Kitchen King
- ✦ Fermented and dehydrated ready mix for Idli & Dosa Batter

- ✦ Virgin coconut oil
- ✦ Millet and multimillet *Puttu Podu* Mix
- ✦ Ready to use Multi-grain *Idli* and *Dosa* batter in retail packs
- ✦ Tamarind powder
- ✦ Preparation of ready-to-eat shelf stable egg crunchy bite
- ✦ Process for the preparation of raw banana powder (unripe)
- ✦ Instant cake mix
- ✦ Eggless cake premix
- ✦ Ready mix: cake
- ✦ Chicken wafers
- ✦ Chocolate rich in healthy polyphenols
- ✦ Ready mix: Jamun
- ✦ Instant *rava idli* Mix
- ✦ Paan flavoured water
- ✦ Tomato products
- ✦ Convenience flour from ragi suitable for stiff porridge
- ✦ Preparation of ready to cook multi grain whole mix for drink/ porridge

IPR in the Horizon

- ✦ A green process for isolation of Crude Glycosaminoglycans from fish waste. Nandini Chikunda, Rohit Gowda, Tanaji Kudre, Chandra Gavva. 22-July-24, 202411055907.
- ✦ A rapid, eco-friendly technique for isolating isomahanimbine from *Murraya Koenigii* and its anticancerous activities. Syed Meera Mustapha, Priya Mondal, Sachin R Chaudhari .31-July-24, 202411058258.
- ✦ Employing edible ingredients in Dip therapy to prolong the vase life of freshly cut Gerbera (*Gerbera jamesonii*) flowers: Methodology and implementation method thereof. Rajesh S Matche, Sachin R Chaudhari, Sachin P Shinde. 06-Aug-24, 202411059523.
- ✦ Synergistic fumigant toxicity of plant essential oils against stored product insect pests. Ezil Vendan S, Vivek Babu C S, Ravichandra Hospet, Pratiksha P G. 13-Aug-24, 202411061532.
- ✦ Dipping strategies for enhancing the Vase life of fresh-cut Gerbera (*Gerbera jamesonii*) and Carnation (*Dianthus caryophyllus*) flowers and a method thereof. Rajesh S Matche, Sachin R Chaudhari, Sachin P Shinde. 16-Aug-2024, 202411062425.
- ✦ Bio Fumigation System for Food Grain Storage and Process for Food Protection Therefrom. Subramanian Ezil Vendan, Chikkarasanahalli Shivegowda Vivek Babu, Ravichandra Hospet, Pratiksha Prabhakar Gawali. 20-Sep-24, 202411071606.

Training Programmes Conducted

- ✦ 3D Bio printing technology and its applications was organized at CSIR-CFTRI on 18.07.2024. Around 41 participants attended this program.
- ✦ Strategies for Probiotic Dairy Product Development Food Processing Technologies (Sponsored by Agriculture Department Technology Management Agency, Krishnagiri District, Tamil Nadu) was organized at CSIR-CFTRI on 18.07.2024. Around 10 participants attended this program.
- ✦ Post-Harvest technologies for Fruits and Vegetables was organized at CSIR-CFTRI during 22.07.2024 to 02.08.2024. Around 12 participants attended this program. The training program covered topics related to Post-harvest technologies, maturity standards, storage methods viz., modified atmosphere and controlled atmosphere, edible coatings for fruits and vegetables. The training program also highlighted the importance of HACCP in handling of fresh horticultural produce.
- ✦ Analytical quality evaluation of fortificant and fortified rice was organized at CSIR-CFTRI during 23.07.2024 to 25.07.2024. Around 10 participants attended this program.
- ✦ Processing of Turmeric and value added products was organized at CSIR-CFTRI during 23.07.2024 to 25.07.2024. Around 10 participants attended this program.

- ✧ Basics in Flour Milling and quality evaluation of flour was organized at CSIR-CFTRI during 05.08.2024 to 09.08.2024. Around 14 participants attended this program. The training program covered topics related to wheat quality and grading, flour mill machineries, principles of wheat cleaning, wheat cleaning & conditioning flow sheet, mill control & management, flour constituents, energy management, audit and its conservation in roller flour mill and atta (whole wheat flour) milling.
- ✧ Sensory Evaluation of Cow Ghee was organized at CSIR-CFTRI during 12.08.2024 to 14.08.2024 for the personnel from Tirumala Tirupati Devasthanam's, Tirupati, Andhra Pradesh. Around 8 participants attended this program. The topics covered during the training includes processing of ghee for product development, demo on qualitative analysis of ghee using standard methods, sensory evaluation of cow ghee and practical on Instrumental analysis.
- ✧ Chromatographic Techniques (GC, HPLC, UHPLC) and their analytical approaches in Food Analysis was organized at CSIR-CFTRI during 19.08.2024 to 23.08.2024. Around 20 participants attended this program. The topics covered during the training includes principles and practice of chromatography instruments (GC), modern instrumentation of chromatography instruments (GC, HPLC & UHPLC) and their applications in food analysis, demo on analysis of pesticides residues in food by GC, lipid profiling using GC and analysis of fatty acid methyl esters by GC/GC-MS.
- ✧ Value addition to Banana was organized at CSIR-CFTRI during 02.9.2024 to 04.9.2024. Around 20 participants attended this program. The topics covered during the training includes post-harvest handling and storage, value addition, dehydration of banana and a demo on raw banana powder and banana bar was also given.
- ✧ Spices processing: Value addition, current trends and quality evaluation was organized at CSIR-CFTRI during 09.9.2024 to 13.9.2024. Around 20 participants attended this program. The topics covered during the training includes current trends and technological advances in value addition to spice, spice oils- extraction/ distillation, ginger processing value addition, spice based value added products, packaging, labelling and storage requirements for spice powder.
- ✧ Grain Process & Products for Health and Wellness was organized at CSIR-CFTRI during 09.9.2024 to 13.9.2024. Around 7 participants attended this program. The topics covered during the training includes grain diversity and structure, grain processing and overview, millet based products, continuation of millet milling, wheat processing and products, shelf stable millet flours and millet products. A demo on processing of minor millets and popping of coarse millets was also given.
- ✧ Hands on training in Microbial Analysis was organized at RC Hyderabad, CSIR-CFTRI during 09.9.2024 to 13.9.2024.
- ✧ Extraction and Quality Assurance of Edible Fats and Oils was organized at CSIR-CFTRI during 18.09.2024 to 20.09.2024. Around 23 participants attended this program. The topics covered during the training includes introduction to fats & oil and its benefits, extraction of edible oil and its methods, production of virgin coconut oil, practical on Laboratory-scale extraction Oil, stability study, methylation, and TLC analysis of polar & non-polar lipids and oil extraction by power Ghani, expeller, and solvent extractor.
- ✧ Processing and Value Addition to Tamarind was organized at CSIR-CFTRI during 23.09.2024 to 25.09.2024 (Sponsored by Karnataka State Agricultural Produce Processing & Export Corporation Limited (KAPPEC)) which was inaugurated by Chief Guest, Shri B.H. Harisha, Chairman, KAPPEC Ltd. on 23rd September 2024. Shri M.H. Banthanal, MD, KAPPEC Ltd., attended the inaugural session as Guest of Honour. The function was presided over by Shri. Rajeshwar S Matche, Director In-charge, CSIR-CFTRI. Around 44 participants from across Karnataka attended this training program. The topics covered during the training includes tamarind processing and technologies, packaging and machinery. Demo on tamarind value addition i.e. Candy preparation, preparation of tamarind powder and sauce was also given.



Short Term Training Programmes Schedule (November - December 2024)

- ✦ Application of Liquid Chromatography - Mass Spectrometry (LC -MS) in (glyco) protein analysis (11-11-2024 to 13-11-2024)
- ✦ Fundamentals and applications of PCR and real time PCR (11-11-2024 to 13-11-2024)
- ✦ Algal and Plant Biotechnology for Food applications (18-11-2024 to 22-11-2024)
- ✦ Fumigation, Prophylaxis and Pest Management Techniques for Stored Food Commodities (22-11-2024 to 06-12-2024)
- ✦ Baking Science and Technology (25-11-2024 to 29-11-2024)
- ✦ Food Process Engineering and Recent Advances (02-12-2024 to 06-12-2024)
- ✦ Nutri-Cereal Process and Products Technology (09-12-2024 to 13-12-2024)
- ✦ Integrated Solid Waste and Wastewater Management in the Food Industry (16-12-2024 to 20-12-2024)
- ✦ Spices and Flavours Current Trends in Processing, Formulations and Quality Evaluation (16-12-2024 to 20-12-2024)

Entrepreneurs' Speak

Evexia Nutritions Pvt. Ltd. is a premier nutraceutical organization based in Bengaluru, India, committed to elevating health and well-being through superior quality, condition-specific nutritional supplements. Our holistic approach to health drives us to create innovative solutions tailored to the unique needs of our diverse clientele.

Core Competencies : Our highly skilled in-house teams specialize in Research and Development, Manufacturing, and Marketing. This ensures that every product not only meets but exceeds stringent quality standards, providing our customers with confidence in their choices.

Manufacturing Excellence : Located in the vibrant Peenya Industrial Estate 2nd Stage, Bengaluru, our state-of-the-art production facility including Tin and Jar Filling Line, Form Fill and Seal Machine and Semi-Automated Cereal Line is equipped with the latest fully automated machinery. This cutting-edge infrastructure allows us to achieve unparalleled precision and efficiency in our manufacturing processes, establishing Evexia as a leader in the nutraceutical space.

Mission Statement : At Evexia, we are driven by the mantra : **"Nourishing Your Health, Nurturing Your Well-being."** Our mission transcends mere business; we are dedicated to providing innovative nutritional solutions that empower individuals to lead healthier, more fulfilling lives.

Core Product Categories : Evexia Nutritions Pvt. Ltd. offers a comprehensive range of products categorized into three main segments, ensuring we meet the varying needs of our customers with

excellence and expertise. Supplements viz., Provexia, D-Manage, GraviPro, ProlacPlus, KinderPro, GeriaPro, RespaPro and Way2Slim; Critical care viz., NefroPro, Prohepatic and ChemoPro and Infant nutrition viz., Bonbaby, BeniBaby :

Vision : At Evexia, we envision a world where optimal health and well-being are accessible to all individuals. Our commitment to innovation and quality drives us to continuously develop products that meet the evolving needs of our consumers. Our goal is to be a trusted partner in health, recognized for our dedication to excellence, ethical practices, and customer satisfaction.

Challenges : The nutraceutical industry is characterized by rapid evolution, presenting several challenges such as regulatory compliance, market competition and consumer awareness. To navigate these challenges, Evexia focuses on: research and development, quality assurance and strategic partnerships.

Partnership with CFTRI : The **Central Food Technological Research Institute (CFTRI)** is instrumental in supporting Evexia's growth trajectory. Their expertise in food technology and nutrition enhances our R&D initiatives, ensuring that our products are both effective and compliant with industry standards.

Benefits of Collaboration : Utilizing CFTRI's cutting-edge research skills to improve our product formulations on a constant basis, guaranteeing its efficacy and commercial relevance. Collaborative research gives us insights into market trends, enabling us to predict customer preferences and demands. enhancing our brand's reputation by partnering with a

reputable research organization and reaffirming our dedication to efficacy and quality in the nutraceutical industry.

For emerging start-ups in the nutraceutical industry, our

advice is to invest in high-quality R&D which should be your first priority because it is the cornerstone of both consumer trust and product innovation.

New Collaborations

University of Horticultural Sciences, Bagalkot (July 4, 2024)

To foster cooperation in education and research activities such as enhancement of nutrition in horticultural crops through molecular approach, Farmers-Scientists interaction meetings, support for establishment of Incubation Centre at UHS, Bagalkot etc.

Bank Note Paper Mill India Private Limited (BNPM), Mysuru (July 9, 2024)

Introduce nutrition intervention programme for preschool children of Mysuru district as part of CSR activity.



Central Silk Board – Central Sericultural Research and Training Institute (CSB-CSRTI), Mysuru and Tamil Nadu Veterinary and Animal Sciences University (TANUVAS), Chennai (July 16, 2024)

Undertake a collaborative project on evaluation and validation of nutritive and feeding value of silkworm (*Bombyx mori*) pupa meal in broiler and layer chicken.

Prayoga Institute of Education Research, Bengaluru (July 25, 2024)

To enhance education research by conducting specific programmes and provide opportunities to conduct research projects/ internships.

Lapp India Private Limited, Bangalore (September 6, 2024)

To conduct a study and research on immune boosting food formulation for children and geriatric conditions with an objective of optimization, product formulation and development of reliable, palatable product to improve the immunity of targeted population.

Events

Radio Broadcast series (July 15, 2024)

'Nam Company' (Our Company), a broadcast series Launched on empowerment of Farmer Producer Organisations organised by Akashavani, Mysuru, in association with Central Food Technological Research Institute (CFTRI), Department of Journalism and Mass Communication, University of Mysore (UoM) and Vikasana Grameena Haagu Nagarabhivruddhi Samsthe, Mandya on July 15th 2024 at Mysore.

Birth Anniversary Celebration of Dr. B. R. Ambedkar (July 29, 2024)

133rd Birth Anniversary celebration of Bharath Ratna Dr. B. R. Ambedkar was held on 29th July 2024 at CSIR-CFTRI. Prof. Ramchandra Guha, Historian & Writer

inaugurated the event and delivered the Special Address. Dr. Sridevi Annapurna Singh, Director, CSIR-CFTRI presided over the function. Dr. S. Narendra Kumar, Director, Gandhi Centre and Professor, Ambedkar Research Extension Centre, University of Mysore, Chief Guest of the function, addressed the gathering.



Independence Day Celebrations (August 15, 2024)

As part of 78th Independence day celebrations, Dr. Sridevi Annapurna Singh, Director, CSIR-CFTRI Hoisted National Flag in front of Main mansion on 15th August, 2024 and also addressed the staff and students.

Disaster Relief to Wayanad, Kerala (August 5-7, 2024)

CSIR-CFTRI supplied nutritious, ready-to-eat & ready-to-cook food materials to survivors & rescuers of Wayanad Landslide as disaster relief in 3 consignments first batch was sent on 2nd August, 2024, and the subsequent batches were sent on 5th and 7th August, 2024 respectively. These food materials along with Hand sanitizers and Wet wipes that were generously provided at no cost by M/s Scheveran Laboratories Pvt. Ltd, Mysore were handed over to Sub-Collector, Wayanad in coordination with M.S. Swaminathan Research Foundation.



National Nutrition Week Celebrations (September 2-5, 2024)

As part of National Nutrition Week 2024 celebrations, Nutrition Awareness lectures & various competitions were organized by CSIR-CFTRI during Sept 2-5, 2024. The Inauguration of National Nutrition Week 2024 with theme "Nutritious Diets for Everyone" and Global Bio-India Road Show 2024 programme was held at CSIR-CFTRI on 2nd September, 2024. Prof. S. Kowsalya, Professor, Department of Food Science and Nutrition, Avinashilingam Institute for Home Science and higher Education for Women (Deemed to be University) Coimbatore, Tamil Nadu was the Chief Guest and delivered the talk on the topic "Fostering Health : Promotion of Nutritious Diets Through Life Cycle to Meet Sustainable Development Goals". Dr. Prachi Agarwal, Senior Manager- Technical, Biotechnology Industry Research Assistance Council (BIRAC), Govt. of India, New Delhi was the Guest of Honour and addressed about Global Bio-India Roadshow 2024. Dr. Sridevi Annapurna Singh, Director, CSIR- CFTRI Presided over the function. Prizes for winners were distributed during this event. Panel Discussion was also held as part of Global Bio-India Roadshow 2024 with theme "Fostering

Innovations to meet Nutrition Challenges". The panellists were Dr.Sridevi Annapurna Singh; Prof. S. Kowsalya;.Dr. Prachi Agarwal; Shri Kumar sankaran, CEO, Leucine Rich Bio Pvt. Ltd; .Dr. Shrilakshmi Desiraju, CEO, AA Probics and Shri Santhosh Sahu, SBI. Shri Rajeshwar S. Matche was the moderator.



National Sports Day Celebrations (September 3-5, 2024)

To commemorate the birth anniversary of legendary hockey player Major Dhyani Chand, National Sports Day was celebrated at CSIR-CFTRI during 3-5th September, 2024. As part of the celebrations, various sports and fun activities including outdoor activities, fun games and indoor activities was organized for staff and students.



Multi Millet Bun Product Launch (September 4, 2024)

McDonald's India launched Multi Millet Bun developed by CSIR-CFTRI as part of MoU with Central Food Technological Research Institute amid government's millet push. Multi Millet Bun launch programme was organised by McDonalds, India in Mumbai on 4th September, 2024, as part of National Nutrition Week. Dr. Sridevi Annapurna Singh, Director of CSIR-CFTRI and Sri Akshay Jatia, Executive Director, McDonald's India (W&S) launched the Multi Millet Bun.



Disaster Relief to Vijawada, A.P.(September 6, 2024)

Disaster relief supplies viz., ready-to-eat and ready-to-cook food were provided by CSIR-CFTRI to representatives from the Andhra Pradesh government for flood-affected people of Vijayawada, Andhra Pradesh.



Conference on "Technology Showcasing and Networking Meet of CSIR-CFTRI Food and Millet Technologies (September 19-20, 2024)

Conference on "Technology Showcasing and Networking Meet of CSIR-CFTRI Food and Millet Technologies" from September 19-20, 2024 at Central Food Technological Research Institute (CFTRI), Mysore jointly organised by CSIR-CFTRI, CSIR- National Institute of Science Communication and Policy Research (NIScPR), Unnat Bharat Abhiyan(UBA) and Vijnana Bharati (VIBHA). The inaugural session was graced by Dr. Sridevi Annapurna Singh, Director, CSIR-CFTRI; Prof. Ranjana Aggarwal, Director, CSIR-NIScPR; Shri Sam Cherian, Chief Guest, Chairman and Managing Director, Schevaran Laboratories Pvt. Ltd., Mysuru; Prof. Virendra Kumar Vijay, National Coordinator, Unnat Bharat Abhiyan (UBA); Dr P. K Singh, Project Director UBA; Shri N.P Rajive, Executive Director Vibha Vaani; and Dr Yogesh Suman, Chief Scientist, CSIR-NIScPR. The networking session was moderated by Dr. Aashitosh A. Inamdar, Head, TTBD Dept., where participants interacted with scientists to know about CSIR-CFTRI technologies and identify specific opportunities for collaboration and technology development with CSIR-CFTRI. An interactive session was also organised with the representatives from Banking sector, Government agencies responsible for



implementing various Government schemes in the area of agriculture. Over 100 people from all over the nation participated in the event, which was a huge success.

Engineer's Day Celebrations (September 17, 2024)

57th Engineer's Day celebrations was held on September 17th, 2024 on the occasion of 164th Birthday of Bharat Ratna Sir M. Visvesvaraya wherein Director and staff offered floral tributes to Sir M V. Director, CSIR-CFTRI addressed the gathering on this occasion. Dr. H Umesh Hebbar, Chief Scientist & Head, Food Engineering Dept. welcomed and coordinated the event.



Birth Anniversary Celebration of Dr. V. Subramanyan, Founder Director, CSIR- CFTRI (September 17, 2024)

Dr. V. Subramanyan, Founder Director, CSIR- CFTRI, Birth Anniversary celebration event was held at CSIR-CFTRI on 17th September, 2024. The Chief Guest, Dr. S.Z. Ali (Retd., Chief Scientist & Former Head, GST Dept) delivered a talk on the topic "Dr. V. Subrahmanyan: The genius behind the development of Food Science and Food Technology in India". Dr. Sridevi Annapurna Singh, Director, CSIR-CFTRI presided over the function.



CSIR Foundation Day (September 26, 2024)

Open Day was held at CSIR-CFTRI on September 26, 2024, as part of CSIR Foundation Day. More than 500 students from various institutions in Maharashtra, Tamil Nadu, Telangana, and Karnataka visited the CSIR-CFTRI facilities during the open day, where they witnessed demonstrations of food processing equipment, analytical methods and other displays.

Awards

Dr. Pushpa S. Murthy, Senior Principal Scientist & Head, Plantation Products, Spices and Flavour Technology (PPSFT) Department, CSIR-CFTRI, was awarded with coveted Dr. Kalpana Chawla Young Women Scientist State Award 2022, instituted by Government of Karnataka. This award is in recognition of her outstanding contribution in the field of Science and Technology, which includes a cash prize of Rs.1,00,000, memento and citation. She received the award from Shri Siddaramaiah, Hon'ble Chief Minister of Karnataka in presence of Shri N.S. Bose Raju, Hon'ble Minister for Minor Irrigation, Science and Technology, Govt. of Karnataka, and other dignitaries. Bharat Ratna Professor C.N.R. Rao, Linus Pauling Research



Professor, Honorary President, JNCASR was the Chief Guest at award presentation function which was held at J.N. Tata Auditorium, Indian Institute of Science campus, Bengaluru on Thursday 26th September, 2024. Prof. Govindan Rangarajan, Director, Indian Institute of Science and Sri A.S. Kiran Kumar, Chairman, Awards Selection Committee and Former Chairman, ISRO were the Guest of Honour for this function.



Mrs. K Kusuma, Sr. Technician (2), Planning Monitoring & Coordination Department has won 3 Gold Medals in 50 m & 100 m freestyles and 50 m breaststroke events at the Karnataka State Para Swimming Championships 2024-25 held at Bengaluru on 2nd October, 2024. The

event was organized by Karnataka Para Swimming Association.

Invited Technical Talk

Dr. C. Anandharamakrishnan, Director, CSIR-NIIST, Thiruvananthapuram delivered invited technical talk on "My Fascination with Science: A Transformative Journey" on 9th September, 2024 to the scientific staff and students. Director and staff felicitated Dr. C Anandharamakrishnan for receiving the Rashtriya Vigyan Shri Puraskar 2024, India's highest award in the fields of science, technology, and technology-led innovations, by President Droupadi Murmu for his contributions to the agricultural science sector.



Visitors

- ✦ Army Officers, who are participants of Adv. Sup Mgt & Food Tech Course (ASMAFT-19) course conducted by ASC Centre & College, Bangalore visited CSIR-CFTRI and its facilities on 9th July, 2024
- ✦ Shri Hari Ranjan Rao, Additional Secretary, Prime Minister's Office (PMO), Govt. of India, New Delhi visited CSIR-CFTRI on 12th July, 2024. He interacted with Director and Scientists and also visited some of the facilities of the Institute.



- ^ Netherlands Delegation consisting of Dr. Dhoya Snijders, Innovations Counsellor from Netherlands Embassy in New Delhi and Dr. Nutan, Senior Innovation Advisor, Netherlands Innovation Network India, Bengaluru visited the CSIR-CFTRI on September 20, 2024 and interacted with scientific staff pertaining to Indo-Netherlands cooperation strategies, HRD activities, Food protection & Technologies.



- ^ Shri. M.J. Dinesh, Chairman, Coffee Board of India, Ministry of Commerce and Industry, Government of India visited the Institute on 30th September, 2024. He interacted with scientific staff pertaining to technologies related to coffee and allied sectors developed by CSIR-CFTRI and also visited Centre for Excellence related to coffee under PMFME scheme and other facilities available at the institute.



Upcoming Events

30th Indian Convention of Food Scientists and Technologists(ICFoST-2024) Event to be held at D.Y. Patil University, Navi Mumbai during 19-21st

December, 2024 organized by AFSTI (Mumbai Chapter) and co-organised by CSIR- CFTRI, DRDO-DFRL and DY Patil University.

Retiree

Dr. R. P. Singh, Chief Scientist & Head, Biochemistry Dept., July 2024

Ph.D.s Awarded



Sangeetha Sher Bahadur Singh (2024). [Guide: Dr. Neelakanteshwara Patil K, Principal Scientist, Department of Microbiology & Fermentation Technology] *trans*-Ferulic acid and sugar beet pulp-phenolic extract as a potential activators of AMPK: Molecular mechanism and implications in amelioration of hyperglycemia, AcSIR.



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Raghavakumari Ramesh Sunagar (2024). [Guide: Dr. Y N Sreerama, Sr. Principal Scientist, Department of Grain Science and Technology] Impact of milling on phenolic profiles of browntop millet and its antidiabetic potential, AcSIR.



Sandesh Suresh (2024). [Guide: Dr. Tanaji Kudre, Principal Scientist, Department of Meat and Marine Science] Production and characterization of biodiesel from fish discards, AcSIR



Sreevathsan (2024). [Guide: Dr. Sandeep Mudliar, Chief Scientist, Department of Plant Cell Biotechnology] Studies on ozonation for treatment of complex organic wastewaters, AcSIR.



Anusha (2024). [Guide: Dr. P S Negi, Chief Scientist, Department of Fruits and Vegetable Technology] Anti-aging potential of mealworm (*Tenebrio molitor*) protein-enriched fruit and vegetable-based products in *in-vitro* and *in-vivo* models, AcSIR.

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- ✦ Monica, P.; Ranjan, Ritesh; Kapoor, Mukesh., Lignocellulose-degrading chimeras: Emerging perspectives for catalytic aspects, stability, and industrial applications, *Renew. Sustain. Energy Rev.*, 2024, 199, art. no. 114425. (IF: 16.3)
- ✦ Biswas, Anisha., Sachin R Chaudhari., Exploring the role of NIR spectroscopy in quantifying and verifying honey authenticity: A review, *Food Chem.*, 2024, 445, art. no. 138712. (IF: 8.5)
- ✦ Majumdar, Sayari., Negi P.S., Extraction of chitin-glucan complex from shiitake (*Lentinula edodes*) fruiting bodies using natural deep eutectic solvents and its prebiotic potential, *Int J Biol Macromol.*, 2024, 273, art. no. 133046. (IF: 7.7)
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