

International Conference on
Innovations in Biotechnology for Sustainable Developments-2026 (IBSD-2026)
 organized by
National Institute of Technology Puducherry, Karaikal, India
 &
The Biotech Research Society, India (BRSI)
October 22-25, 2026

PROGRAM

22nd October 2026

0900-1330	Workshop on <i>Scientific Writing and Research Skill Development</i> (Venue: Dr APJ Abdul Kalam Block, Hall A, CSE Wing, CSE 301) Moderator & Director: Eldon Rene, UNESCO Institute of Water Education, Delft, the Netherlands
1400-1545	Registration (Venue: Entrance Lobby, Ground Floor, Admin Building)
1600-1800	Opening session and BRSI awards function: Release of IBSD-2026 Abstract Book (Venue: Admin Building, Ground Floor, KiRaa Auditorium)
1800-1830	TEA/COFFEE
1830-1930	BRSI Foundation Day Lecture-2026: <i>From Bedaquiline to Artificial Intelligence: Advancing Therapeutic Innovation for Drug-Resistant Tuberculosis</i>, Anil Koul, Group CSO, Mankind Pharma, India; Director BSV Bioscience Germany; Adjunct Professor, London School of Hygiene and Tropical Medicine, London, UK Session Chair: Alok Dhawan, SSMS Ltd, Lucknow (Venue: KiRaa Auditorium)
1930-2030	Presentations by BRSI awards winners (Lifetime Achievement, Young Scientist, Woman Scientist, Industrial Medal awardees) Session Chair: Sudhir Kumar Sopory, ICGEB, New Delhi (Venue: KiRaa Auditorium)
2030-2130	DINNER

23rd October 2026

Time, h	Session IA: Microalgal Biorefineries (Venue: APJ Abdul Kalam Block, 3 rd Floor, CSE Wing, Room CSE 301)	Session IB: Bioremediation & Biodegradation (Venue: APJ Abdul Kalam Block, 3 rd Floor, ECE Wing, Room ECE 301)	Session IC: One Health- New Innovations (Venue: APJ Abdul Kalam Block, 3 rd Floor, ME Wing, Room ME 301)	Session ID: Pretreatment and Thermochemical Processing of Biomass (Venue: APJ Abdul Kalam Block, 3 rd Floor, CE Wing, Room CE 301)
	Coordinator: Archana Tiwari AU, Noida	Coordinator: Vivekanand MNIT, Jaipur	Coordinator: Praveenkumar R AEC, Tiruvannamalai	Coordinator: Sindhu Raveendran SSIRI, Trivandrum
	Chairs: Rui Oliveira, Portugal & Reeta Rani Singhania, Taiwan	Chairs: Byong-Hun Jeon, Republic of Korea & Sathyanarayana N Gummadi, India	Chairs: Alok Dhawan, India & Mallu Puttasmawappa, India	Chairs: Rajni Hatti Kaul, Sweden & Anil Kumar Puniya, India
0900-0925	PL 001: High-potential exopolysaccharides from microalgae in the field of bioactive compounds and hydrocolloids, Philippe Michaud, Universite Clermont Auvergne, Clermont Ferrand, France	PL 002: Biodegradation of sulfamethoxazole under various redox conditions, Raj Boopathy, Department of Biological Sciences, Nicholls State University, Thibodaux, USA	PL 003: Beyond Prediction: Why experimentally determined protein structures remain essential for drug design, TP Singh, All India Institute of Medical Sciences, New Delhi, India	PL 004: Biomass based carbons as thermally stable superhydrophobic coatings: Evaluation for self-cleaning and icephobic cotton fabric, Thallada Bhaskar, CSIR-Advanced Materials and Processes Research Institute, Bhopal
0925-0950	PL 005: Innovative Sustainable Extraction Strategies for Macroalgae Cascading Valorization, Jose A Teixeira, University of Minho, Braga, Portugal	PL 006: Phytoremediation of arsenic contaminated gold mine waste soil, Andrew S Ball, Royal Melbourne Institute of Technology University, Melbourne, Australia	PL 007: Chemical Reprogramming of Stem Cells into Neurons by Furan-based Macrocycles: A transcriptomic Validation, Javed Iqbal, Scimplify Centre for Innovation, Bengaluru, India	PL 008: Impact of the carbon source on the pyrolysis and combustion behaviors of four oleaginous yeasts, Alain Brillard, UHA University, Mulhouse, France
0950-1010	IL 001: Beyond the Microscope: Integrating Artificial Intelligence for Real-Time Microalgae Monitoring and Classification, Karthik Rajendran, SRM University AP, Amravati	IL 002: Biodegradation of gas-phase styrene using fungal and bacterial cultures in different bioreactor configurations, Eldon Rene, IHE Delft Institute for Water Education, Delft, The Netherlands	IL 003: From immune pathogenesis to immunotherapy in COVID-19, Jagadeesh Bayry, Indian Institute of Technology Palakkad, India	IL 004: Biomass-derived carbon bioelectrode from coconut husk for energy storage applications, Vivekanand, Malaviya National Institute of Technology, Jaipur

1010-1030	IL 005: Microalgae cultivation on dairy plant effluent: Process modelling and livestock applications, Ranjna Sirohi, SKN Agricultural University, Jaipur	IL 006: Bioleaching-Driven Metal Recovery Coupled with Bio-Assisted CO ₂ Mineralization of Mining Waste, Sara Magdouli, University of Ottawa, Ottawa, Canada	IL 007: Rapid Detection of Common Food-borne Pathogens using a Nanotechnological-based Microfluidic Point-of-Care Device, Raj Mohan Balakrishnan, National Institute of Technology Karnataka, Surathkal, Mangalore	IL 008: Agro waste biochar conversion to bio-inspired phase change materials for thermal energy storage, Kalidasan Balasubramanian, Sunway University, Selangor Darul Ehsan, Malaysia
1030-1100	TEA/COFFEE			
1100-1300	Session IIA: Microalgal Biorefineries & Biofuels	Session IIB: Wastewater Treatment & Resource Recovery	Session IIC: Drug Development and Disease Control	Session IID: Functional Food, Probiotics/ Nutraceuticals & Food Packaging
	Coordinator: Ranjna Sirohi SKNAU, Jaipur	Coordinator: Ayon Tarafdar ICAR-IVRI, Bareilly	Coordinator: Praveenkumar R, AEC, Tiruvannamalai	Coordinator: Sindhu Raveendran SSIRI, Trivandrum
	Chairs: Philippe Michaud, France & Olaniyi A Fawole, South Africa	Chairs: Sunil Kumar Khare, India & Fabrizio Adani, Italy	Chairs: Javed Iqbal, India & Bhaskar Narayan, India	Chairs: Suzana Ferreira-Dias, Portugal & Ratan Kumar Choudhary, India
1100-1120	IL 009: Microalgal Bioprocesses for Circular Bioeconomy and Sustainability, Thilini U Ariyadasa, University of Moratuwa, Katubedda, Sri Lanka	IL 010: Biohydrogen from palm oil mill effluent: A comparative analysis on deployment readiness across Southeast Asia based on Deployment Readiness Index (DRI), Suzana Yusup, Sunway University, Selangor Darul Ehsan, Malaysia	IL 011: From Phage Enzymes to Biotherapeutics: Mycolysins as Next-Generation Antimycobacterials, Rajni Hatti Kaul, Lund University, Lund, Sweden	IL 012: Decoding African Fermented Foods through Omics tools for Health and Innovation, Santhosh Pillai, Durban University of Technology, Durban, South Africa
1120-1140	IL 013: Marine Biomass to Bioeconomy: Systems for Circular Seaweed Bioprocessing, Reeta Rani Singhania, National Kaohsiung University of Science and Technology, Kaohsiung City, Taiwan	IL 014: Aquaponics as a circular Waste-to-resource platform: Integrating biofiltration, vermicomposting, and nutrient recovery, Gourav Dhar Bhowmick, Indian Institute of Technology Kharagpur, India	IL 015: Disease diagnosis, prognosis and therapeutics monitoring: Role of human intelligence and artificial intelligence for better patient care, Alok Dhawan, SS Medical Systems Pvt Ltd, Lucknow	IL 016: Climate-Smart Dairy: Camel for Sustainable Milk Production in Rising Global Temperature, Anil Kumar Puniya, ICAR-National Research Centre for Camel, Bikaner

1140-1200	IL 017: Bio-computational tools and gene network analysis in cyanobacteria: perspectives and challenges, Pratyosh Shukla, Banaras Hindu University, Varanasi, India	IL 018: Sewage Sludge-Derived Hydrochar-MOF for Tetracycline Removal from Water, P Senthikumar, Pondicherry University, Puducherry, India	IL 019: Antisense technology for the treatment of genetic diseases, Ravindra N Singh, Iowa State University, Ames, USA	IL 020: Application of Fermentation Techniques & Enzymatic hydrolysis to Recover Lipids & Proteins from Fish processing Discards, Bhaskar Narayan, CSIR-Indian Institute of Toxicology Research, Lucknow, India
1200-1220	IL 021: Sustainable strategies towards enhanced functional biomolecule production in microalgae, Archana Tiwari, Amity University, Noida, Uttar Pradesh, India	IL 022: Integrated Nitrogen Removal and Energy Recovery in Microbial Fuel Cells under Variable Cathodic Loading Conditions, Surajbhan Seveda, National Institute of Technology, Warangal	IL 023: Innovative Biosensing Technologies for Rapid, Affordable and Decentralized Healthcare Diagnostics, Pawankumar Rai, ANIVID Research and Development Private Limited, Santkabir Nagar, Uttar Pradesh	IL 024: Spent hen meat hydrolysates to low molecular weight peptides with enhanced special learning and anti-inflammatory properties, Ayon Tarafdar, ICAR-Indian Veterinary Research Institute, Bareilly, India
1220-1240	IL 025: Microalgae-Driven Industrial Dye Bioremediation in Wastewater: Integrated Degradation Pathways and Circular Bioeconomy Approaches, Sabeela Beevi Ummalyma, Rajagiri College of Social Sciences, Cochin, India	IL 026: Food Waste-to-Hydrogen: An Integrated Waste-to-Wealth and Waste-to-Energy Approach Using a Dynamic Membrane Bioreactor, Ashutosh Kumar Pandey, Yonsei University, Seoul, Republic of Korea	IL 027: D-Allulose as a Next-Generation Therapeutic Agent: Biotechnological Advances, Metabolic Health Benefits, and Clinical Perspectives, M Jayakumar, SRM Institute of Science and Technology, Chennai	IL 028: Biodegradable packaging for food industries utilising agricultural residues, Poonam Singh Nigam, Ulster University, Coleraine, Northern Ireland, UK
1240-1300	IL 029: Optimization of Biodiesel Production from Omega-3 Fatty Acid Catalyzed by Immobilized <i>Aspergillus nidulans</i> Whole Cells, R Praveenkumar, Arunai Engineering College, Tiruvannamalai, India	IL 030: Rapid Removal of Cationic Dyes by Acid- and Base-Activated Rice Straw Biochar: Comparative Insights from Methylene Blue and Crystal Violet Adsorption, Alok Kumar Panda, KIT Deemed University, Bhubaneswar	IL 031: Biotechnological production of procyanidins and their therapeutic effects in neurodegenerative disorders, Cristobal Noe Aguilar, University of Coahuila, Mexico	OP 001: Decoding Metabolic Rewiring in Triple-Negative Breast Cancer Through Integrated Multi-Omics Reveals ACLY as a Therapeutic Target, Mangala Hegde, Indian Institute of Technology Guwahati, Guwahati OP 002: Impact of Span Surfactants on the Physicochemical Properties of Stearic Acid-Sesame Oil Oleogels for Topical Drug Delivery, Sarada Prasanna Mallick, National Institute of Technology Andhra Pradesh, Tadepalligudem

1300-1400	LUNCH			
1300-1500	POSTER SESSION I (PP 001-PP 073) Coordinators: Binod Parameswaran, CSIR-NIIST, Trivandrum; Baskar Gurunathan, SJCE, Chennai; Ayon Tarafdar, ICAR-IVRI, Bareilly & Pravin R, CRF, Chennai			
1500-1635	Session IIIA: Advanced Bioprocessing & Biomanufacturing	Session IIIB: Sustainable Environment & Circular Economy	Session IIIC: Drug Design and New Developments	Session IIID: Sustainable Agriculture for Food & Climate Security
	Coordinator: Archana Tiwari AU, Noida	Coordinator: Sindhu Raveendran SSIRI, Trivandrum	Coordinator: Praveenkumar R AEC, Tiruvannamalai	Coordinator: Baskar Gurunathan SJCE, Chennai
	Chairs: Jose A Teixeira, Portugal & Rakesh Kumar, India	Chairs: Thallada Bhaskar, India & Eldon Rene, Netherlands	Chairs: Kenji Monde, Japan & Jagadeesh Bayry, India	Chairs: Poonam Singh Nigam, UK & Ranjna Sirohi, India
1500-1525	PL 009: Extremophilic Bioprocessing for a Sustainable Bioeconomy, Rajesh Sani, South Dakota School of Mines and Technology, Rapid City, USA	PL 010: Electrofermentation-Driven Carbon Upcycling via Engineered Material-Microbe Interfaces for Selective Bio-based Chemical Production, S Venkata Mohan, CSIR-National Environmental Engineering Research Institute, Nagpur, India	PL 011: Shortwave-infrared organic fluorescent probes for targeted cancer imaging, Kenji Monde, Hokkaido University, Sapporo, Japan	PL 012: Heat shock transcription factor HsfA6a mediated thermopriming in barley, Harsh Chauhan, Indian Institute of Technology Roorkee, India
1525-1545	IL 032: Regional cooperation in building a biosociety, Mikko Järvinen, Natural Resources Institute Finland, Maaninka Finland	IL 33: Sustainable waste valorization technologies for environmental remediation, Preeti Chaturvedi Bhargava, CSIR-Indian Institute of Toxicology Research, Lucknow	IL 034: Oxidative Stress and Alzheimer's Disease: Nutraceutical Intervention by Mulberry Fruit Extract, Tomoyo Ochishi, National Institute of Advanced Industrial Science and Technology, Tsukuba, Japan	IL 035: Modeling of plant transpiration for space life support systems, Jean-Pierre Fontaine, Université Clermont Auvergne, Clermont Ferrand, France
1545-1605	IL 036: Microbiological and Enzymatic Approaches for Caffeine Degradation: Food and Industrial Applications, Sathyanarayana N	IL 037: Synergistic Effect of Biosurfactant and Chemical Surfactant with Salinity on Enhanced Oil	IL 038: Brain Functional Imaging Technologies to Reveal Neural Bases of Online Communication, Koichi	IL 039: Sustainable bioeconomy strategies for reducing postharvest losses and adding value to bioresources: insights from the

	Gummadi, Indian Institute of Technology Madras, India	Recovery, Lalit Mohan Pandey, Indian Institute of Technology, Guwahati	Yokosawa, Hokkaido University, Japan	University of Johannesburg, Olaniyi A. Fawole, University of Johannesburg, Johannesburg, South Africa
1605-1625	IL 040: Utilization chicken slaughterhouse wastes for sustainable production keratinase and protease, Keshab C Mondal, Vidyasagar University, Midnapore	OP 003: Isolation and Acclimatization of Native Dairy Wastewater Microbes for Development of Liquid Biofertilizer, Pilli Sridhar, National Institute of Technology, Warangal OP 004: Optimizing pre-composting duration for dairy sludge vermiremediation and agronomic potential, Ramesh Kumar, Hanyang University, Seoul, Korea	IL 41: Structure Based and AI mediated Drug Discovery against Flaviviruses: Insights from the Dengue and Zika Virus Proteomes, Sanjeev Kumar Singh, Alagappa University, Karaikudi, India	IL 042: Plant-Associated Microbiome Networks for Climate-Resilient Agriculture: Harnessing Soil-Plant Interactions for Soil Health and Plant Growth, Piyush Pandey, Assam University, Silchar
1625-1635	OP 05: Development of engineered <i>Escherichia coli</i> strain for stable and efficient production of 1,3-butanediol, Yashika Raheja, Guru Gobind Singh Indraprastha University, Delhi	OP 06: Bioelectrochemical and Paper-Based Sensing Platforms for Integrated Wastewater Bioremediation, Resource Recovery, and Pollutant Detection, Satya Eswari Jujjavarapu, National Institute of Technology Raipur	OP 07: Phytochemical-based adjuvant therapy: quercetin restores ciprofloxacin and tetracycline activity against antimicrobial-resistant <i>Vibrio cholerae</i> , Surajit Bhattacharjee, Tripura University, Agartala	OP 08: Development of a portable, eco-friendly plant tissue culture system: A low-cost solution for sustainable propagation, Aveek Samanta, Prabhat Kumar College, Purba Medinipur
1635-1700	TEA/COFFEE			
1700-1800	Session IVA: Oral/Rapid Oral Presentation	Session IVB: Rapid Oral Presentation	Session IVC: Rapid Oral Presentation	Session IVD: Rapid Oral Presentation
	Coordinator: Vivekanand MNIT, Jaipur	Coordinator: Sindhu Raveendran SSIRI, Trivandrum	Coordinator: Praveenkumar R, AEC, Tiruvannamalai	Coordinator: Ayon Tarafdar ICAR-IVRI, Bareilly
	Chairs: Shibani Mohapatra, India & Archana Tiwari, India	Chairs: Piyush Pandey, India & B Bharathiraja, India	Chairs: Keshab Mondal, India & Balendu Shekhar Giri, India	Chairs: Harsh Chauhan, India & Sathyanarayana Gummadi, India

1700-1710	OP 09: Genome-wide analysis of autophagy-related genes and their characterization under high temperature stress in wheat (<i>Triticum aestivum</i> L.), Sharmistha Barthakur, ICAR-National Institute for Plant Biotechnology, New Delhi	ROP 011 to ROP 020	ROP 021 to ROP 030	ROP 031 to ROP 040
1710-1800	ROP 001 to ROP 010			
1805-1915	CULTURAL PROGRAM			
1915-2015	DINNER			
<u>24th October 2026</u>				
0900-1030	Session VA: Contributory Oral Presentations	Session VB: Contributory Oral Presentations	Session VC: Contributory Oral Presentations	Session VD: Contributory Oral Presentations
	Coordinator: Archana Tiwari AU, Noida	Coordinator: Ranjna Sirohi SKNAU, Jaipur	Coordinator: Vivekanand MNIT, Jaipur	Coordinator: Sindhu Raveendran SSIRI, Trivandrum
	Chairs: Marina Tisma, Croatia & Pravindra Kumar, India	Chairs: Suzana Yusup, Malaysia & Preeti Chaturvedi, India	Chairs: Koichi Yokosawa, Japan & Binod Parameswaran, India	Chairs: Jean-Pierre Fontaine, France & Narasinha J Shurpali, Finland
0900-0910	OP 010: Engineering Thermotolerant <i>Pichia kudriavzevii</i> through Adaptive Evolution for Enhanced Tolerance to Pretreatment-Derived Inhibitors, Jitendra K Saini, Central University of Haryana, Mahendergarh	OP 019: Exploring arsenate tolerance in the marine Actinomycete <i>Nocardiopsis dassonvillei</i> NCIM 5124, Smita Zinjarde, Savitribai Phule Pune University, Pune	OP 028: Phytotoxic Impact of Methylene Blue Dye on Mustard (<i>Brassica juncea</i> L.): Evidence from Germination Bioassays and Multivariate Statistical Analysis, Shibani Mohapatra, Siksha ‘O’ Anusandhan, Bhubaneswar	OP 037: The presence and temporal dynamics of stem cells in camel milk, Ratan Kumar Choudhary, ICAR-National Research Centre on Camel, Bikaner

0910-0920	OP 011: Metabolic Engineering of <i>E. coli</i> for Sustainable Biosynthesis of 1,3-Butanediol, Vivek Kumar Gaur, Amity University Uttar Pradesh, Noida	OP 020: Biofilm-Assisted Immobilization of Indigenous Arsenite-Oxidizing <i>Bacillus</i> Consortium on Sugarcane Bagasse for Sustainable Arsenic Bioarrest in Paddy Agroecosystems, Soma Ghosh, Adamas University, Kolkata	OP 029: Antioxidant-rich Amla (<i>Phyllanthus emblica</i> L.) Lacto-Pickle: Production, Nutritional and Proximate Composition, Subhashree Rath, Siksha 'O' Anusandhan, Bhubaneswar	OP 038: Enhancing Biogas Recovery from Pulp and Paper Mill Biological Sludge through Anaerobic Co-Digestion with Food Waste, Polisetty Venkateswara Rao, National Institute of Technology, Warangal
0920-0930	OP 012: Screening of Agro-waste Residues for Dark Fermentative Biohydrogen Production, Coupled with Nanoparticle Mediated Pretreatment and Optimization of Ruminal Microbial Consortia with the Help of Response Surface Methodology (RSM), Kriti Sengupta, TCG Centers for Research and Education in Science and Technology, Kolkata	OP 021: Machine Learning-Enabled Biomass Valorization for Tailored Biochar Design in Energy Storage Applications, Mari Selvam S, Thapar Institute of Engineering and Technology, Punjab	OP 030: Induced Systemic Resistance by Rhizobacteria Enhances Defense Against Collar Rot Disease in Bhut Jolokia (<i>Capsicum chinense</i> Jacq.), Priyanka Gogoi, CSIR-Northeast Institute of Science and Technology, Jorhat	OP 039: Development of an IoT-Enabled Smart Photobioreactor Integrated with Artificial Intelligence and Digital Twin Technology for Real-Time Monitoring and Predictive Cultivation of Microalgae, Supratim Ghosh, BITS Pilani Hyderabad
0930-0940	OP 013: Sustainable conversion of White rot fungi pretreated sugarcane bagasse for enhanced biohydrogen production via dark fermentation, BR Sreelekshmy, Rajagiri College of Social Sciences, Cochin	OP 022: Next-Generation Constructed Wetlands for Personal Care Product Removal: Innovations in Substrate Design, Hybrid Treatment Systems, and Machine Learning Applications, Balendu Shekhar Giri, University of Petroleum and Energy Studies, Dehradun	OP 031: Occupational Exposure Alters the Oral Microbiome: Potential for Probiotic-Based Preventive Strategies, Sukanta Sh. Bhattacharya, ¹ JIS University, Kolkata	OP 040: Aromatic hydrosol as an elicitor for improving the microalgal biomass production and content of high-value compounds, Sanjeet Mehariya, CSIR-Central Institute of Medicinal and Aromatic Plants, Lucknow
0940-0950	OP 014: Efficient Pretreatment of Lignocellulosic Biomass by MOF based Nanozymes and Subsequent Production of Biohydrogen through Dark Fermentation, Arpita Nandy, TCG Centres for Research and Education in Science and Technology, Kolkata	OP 023: Degradation and Metabolic Pathway Interpretation of Polycyclic Aromatic Hydrocarbons by Indigenous Landfill Bacteria and a Green-Synthesized AgNO ₃ -Algae Nano-bio-composite, Shaili Srivastava, Amity University Haryana, Gurugram	OP 032: Consensus <i>In Silico</i> Prediction of Cell-Penetrating Peptide-Like Motifs from <i>Annona muricata</i> matK Protein Using Bioinformatics and AI/ML Tools, Karuna Sri Thandu, Jawaharlal Nehru Technological University Kakinada	OP 041: Sustainable Remediation of Microplastics in Aquatic Ecosystem using Extracellular Polymeric Substances via Stress Induced Algal Cultivation, Bunushree Behera, Thapar Institute of Engineering and Technology, Patiala

0950-1000	OP 015: Multifaceted carotenoid production by the fast-growing <i>Synechococcus</i> sp. PCC 11901 and its weighted gene co-expression network analysis (WGCNA), Eetika Chot, Banaras Hindu University, Varanasi	OP 024: Fungal-Mediated Biodegradation of LDPE and PET Plastics: A Sustainable Approach to Plastic Waste Remediation, Salam Menaka Devi, Amity University Uttar Pradesh, Noida	OP 033: Development, statistical process optimization and antileukemic evaluation of a next-generation anticancer biotherapeutic from a marine bacterium, <i>Chryseomicrobium amylolyticum</i> , Lailaja VP, ICAR-Central Marine Fisheries Research Institute, India	OP 042: Bioprocess optimization of extracellular lipase production by <i>Sporobolomyces aff. Pararoseus</i> , Sandeep Kumar, BRIC-National Agri-Food and Biomanufacturing Institute, Mohali
1000-1010	OP 016: Sustainable Bioplastic Fabrication Using Yeast-Derived Biocellulose from <i>Magnusiomyces capitatus</i> , Dhanasekaran Subashri, The Gandhigram Rural Institute, Gandhigram, Dindigul	OP 025: Artificial Intelligence and Smart Waster Treatment for Sustainable Water Management, Anamika Singh, UPES Dehradun	OP 034: Methanolic Extract of <i>Saussurea gossypiphora</i> Inhibits NLRP3 Inflammasome and Suppresses JAK2/STAT3 Pathway to Exert Anti-inflammatory and Anticancer Effects, Sandeepa Burgula, Osmania University, Hyderabad	OP 043: Study of simultaneous exopolysaccharide production and canteen wastewater contaminant removal by an indigenous bacterial strain, Asmita Gupta, Daulat Ram College, New Delhi
1010-1020	OP 017: Sustainable upcycling of plastic waste to biobased products: An electro fermentative approach, J Annie Modestra, CSIR-National Environmental Engineering Research Institute, Regional Center, Hyderabad	OP 026: Investigating the potential of Sugarcane bagasse for biogas production and digestate valorization, Madan Kumar, Indian Institute of Technology Delhi, New Delhi	OP 035: Functional Evaluation of Oligosaccharides Derived from Pineapple Leaf Waste, Reetu Saini, Central University of Haryana, Mahendragarh, Haryana	OP 044: Rapid Aerobic Composting of Vegetable Waste into a Phyto-stimulatory Biofertilizer Using an Indigenous Microbial Consortium and Natural Inputs, R Satish Babu, National Institute of Technology Warangal
1020-1030	OP 018: Bioconversion of green macroalgae <i>Chaetomorpha antennina</i> for microbial growth and production of 3-hydroxypropionic acid from glycerol using engineered <i>Escherichia coli</i> , Mugesh Sankaranarayanan, Vel Tech Rangarajan Dr Sagunthala R&D Institute of Science and Technology, Avadi	OP 027: Strategies for enhanced production of biogas from sugarcane industry waste, Sukhendra Singh, National Institute of Technology Durgapur	OP 036: Structural and functional characterization of modified citrus methylated pectin, Jagan Mohan Rao Tingirikari, National Institute of Technology Andhra Pradesh, Tadepalligudem	OP 045: Study on Rice Straw Valorization for Nanocellulose Production: A waste to wealth strategy, Rupika Sinha, Motilal Nehru National Institute of Technology Allahabad, Prayagraj

1030-1100	TEA/COFFEE			
1100-1310	Session VIA: Advanced Bioprocessing & Biomanufacturing	Session VIB: Sustainable Environment- Anaerobic Digestion	Session VIC: Rapid Oral Presentations	Session VID: Sustainable Agriculture for Food & Climate Security
	Coordinator: Sindhu Raveendran, SSIRI, Trivandrum	Coordinator: Vivekanand, MNIT, Jaipur	Coordinator: Baskar Gurunathan, SJCE, Chennai	Coordinator: R Praveenkumar, AEC, Tiruvannamalai
	Chairs: Rajesh K Sani, USA & Mikko Järvinen, Finland	Chairs: Sara Magdouli, Canada & Charles Adetunji, Nigeria	Chairs: Hyato Suzuki, Japan & Alok Kumar Panda, India	Chairs: Sasmita Mohanty, India & Gourav Dhar Bhowmick, India
1100-1125	PL 013: Nature Inspired Technologies for Economics of Sustainability, Rakesh Kumar, Society for Indoor Environment and A&WMA India, Mumbai	PL 014: Integrated bioaugmentation and biostimulation strategies to restore microbial community function in organic-overloaded anaerobic digesters, Byong-Hun Jeon, Hanyang University, Seoul, Republic of Korea	ROP 041 to ROP 064	PL 015: Sustainable Agriculture for Food and Climate Security, N Parasuraman, MS Swaminathan Research Foundation, Chennai
1125-1150	PL 016: Molecular Insights of Plastic/Plasticizer Degrading Enzymes, Pravindra Kumar, Indian Institute of Technology Roorkee, India	PL 017: Challenges in evaluation of dispersion and performance in a laboratory scale sludge hybrid anaerobic reactor, P Mullai, Annamalai University, Annamalai Nagar, India		PL 018: Valorization of Wood residues for boreal agricultural GHG mitigation and soil health improvement, Narasinha J Shurpali, Natural Resources Institute Finland, Maaninka, Finland
1150-1210	IL 043: Fungal Biomanufacturing: From Lignocellulosic Biomass to Integrated Bio-Based Systems, Marina Tisma, Josip Juraj Strossmayer University, Osijek, Croatia	IL 044: Microbial Community Dynamics and Functional Insights of Polylactic Acid and Starch-based Bioplastics Degradation in Anaerobic Digestion: from Batch to Continuous Stirred Tank Reactor, Elisa Clagnan, Università degli Studi di Milano, Milan, Italy		IL 045: Auxin and Ethylene Crosstalk: The Yin and Yang of Tomato Fruit Ripening Regulation, Rahul Kumar, University of Hyderabad, Hyderabad, India
1210-1230	IL 046: AtfA Coordinates Fungal Development, Stress Adaptation,	IL 047: Harnessing Marine Biodiversity for Methane Valorization:		IL 048: Harnessing potential of biochar towards sustainable agricultural

	and Metabolic Preparedness as a Central bZIP Regulatory Node, István Pócsi, University of Debrecen, Debrecen, Hungary	Structural and Computational Insights into Methane Monooxygenase, Chandrabose Selvaraj, AMET University, Chennai		practices, energy and wastewater applications, Indrajit Chakraborty, Indian Institute of Technology Bombay, Mumbai, India
1230-1250	IL 049: From Design to Application: Unlocking the Potential of NADES in the Life Science Industry. Ivana Radojčić Redovniković, University of Zagreb Faculty of Food Technology and Biotechnology, Zagreb, Croatia	IL 050: Process Intensification of High-Solids Anaerobic Digestion of Organic Solid Waste, Bippro Ranjan Dhar, University of Alberta, Canada		IL 051: Biopesticide Formulations: Innovations, Opportunities and Challenges for Sustainable Crop Protection, Mohana Krishna Reddy Mudiam, Institute of Pesticide Formulation Technology, Gurugram
1250-1310	IL 052: From Microbes to Molecules: Sustainable Routes to Platform Chemicals, Parameswaran Binod, CSIR-National Institute for Interdisciplinary Science and Technology, Trivandrum, India	IL 053: Energy Efficient Pilot Scale Treatment of Domestic Wastewater Using Integrated UASBR and Anammox Based system for Simultaneous Pollutant Removal and Resource Recovery, Manaswini Behera, Indian Institute of Technology Bhubaneswar		IL 054: Sustainable Strategy for Synbiotic Nutraceutical Development from Fruit Waste via Green Solvent Extraction and Functional Fermentation, Bhima Bhukya, Osmania University, Hyderabad, India
1310-1400	LUNCH			
1310-1500	POSTER SESSION II (PP 074-PP 146) Coordinators: Binod Parameswaran, CSIR-NIIST, Trivandrum; Baskar Gurunathan, SJCE, Chennai; Ayon Tarafdar, ICAR-IVRI, Bareilly & Pravin R, CRF, Chennai			
1500-1640	Session VIIA: Advanced Bioprocessing & Biomanufacturing	Session VIIB: Sustainable Environment- Wastewater Treatment & Resource Recovery	Session VIIC: One Health- New Innovations	Session VIID: Pretreatment and Thermochemical Processing of Biomass
	Coordinator: Sindhu Raveendran, SSIRI, Trivandrum	Coordinator: Vivekanand, MNIT, Jaipur	Coordinator: Praveenkumar R, AEC, Tiruvannamalai	Coordinator: Baskar Gurunathan, SJCE, Chennai

	Chairs: Ivana Radojčić Redovniković, Croatia & Pratyosh Shukla, India	Chairs: Elisa Clagnan, Italy & Vinod Kumar, India	Chairs: Siddabasave Gowda B Gowda, Japan & Santhosh Pillai, South Africa	Chairs: Alain Brillard, France & Pavel Maryandyshev, Russia
1500-1520	IL 055: Biotechnological Strategies for Sustainable Production of Functional Lipids, Suzana Ferreira-Dias, Universidade de Lisboa, Lisboa, Portugal	IL 056: Coupling nitric oxide-targeted anammox and biomethanation for recalcitrant closed landfill leachate treatment and resource recovery, P Sankar Ganesh, Birla Institute of Technology and Science Pilani, Hyderabad Campus, Medchal	IL 057: Deep and Ultra-rapid Glycotyping: Sulphoglycotyping and O-antigen typing, Hiroshi Hinou, Hokkaido University, Sapporo, Japan	IL 058: From Agricultural Residues to High-Value Bioproducts: An Integrated Microwave-Assisted Biorefinery Approach, Pradeep Verma, Central University of Rajasthan, Kishangarh
1520-1540	IL 059: Hyper tolerant mutant of an Engineered <i>Corynebacterium glutamicum</i> for the bioconversion of ornithine to putrescine, a monomer used in polyamide industry, K Madhavan Nampoothiri, CSIR National Institute for Interdisciplinary Science and Technology, Trivandrum	IL 060: Integrated Microalgal Biorefinery for Sewage Wastewater Remediation, Nutrient Recovery, Lipid Valorization, and Sustainable Biofertilizer Production Using <i>Chlorella vulgaris</i> , B Bharathiraja, Easwari Engineering College, Chennai	IL 061: Manipulation of Bioactive Saponins in Quinoa: Implications for Nutrition and Health, Hayato Suzuki, National Institute of Advanced Industrial Science & Technology, Hokkaido, Japan	IL 062: Sequential Deep Eutectic Solvent and Organosolv Pretreatment for Sustainable Biorefining: Process Optimization, Environmental Impact, and Economic Feasibility, Santi Chuetor, King Mongkut's University of Technology North Bangkok, Bangkok, Thailand
1540-1600	IL 063: 3D-Bioprinted Bioactive Films from Natural Resources for Sustainable Active Packaging, Maria H Ribeiro, Universidade de Lisboa, Lisboa, Portugal	IL 064: Microbial Fuel Cells: A Waste-to-Wealth Approach for Sustainable Energy and Wastewater Treatment, M Matheswaran, National Institute of Technology, Tiruchirappalli	IL 065: Alpha-lipoic acid, a potent natural antioxidant and beyond (experimental and computational insights), Jaspreet Kaur Dhanjal, Indraprastha Institute of Information Technology Delhi, New Delhi	IL 066: Enhanced Hydrogen Production from Water Hyacinth Biomass through Catalytic Gasification Process, Bridgid LF Chin, Curtin University, Miri, Sarawak, Malaysia
1600-1620	IL 067: Engineering Biology-driven Circularity: Singapore's Waste-to-X Ecosystem, Sandeep Tiwari, Real Impact, Singapore	IL 068: Development of agrochemicals that minimize greenhouse gas emissions, Josef Maroušek, Technical University of Kosice, Kosice, Slovakia	IL 069: Sea-weed-derived Fucoxanthin is a Candidate Modulator of Stress and Age-related Brain Dysfunction, Myat Nyein Khine, National Institute of Advanced Industrial Science & Technology, Tsukuba, Japan	IL 070: Co-gasification of Rice Husk Pellets and Petroleum Coke, Ashish Sawarkar, Motilal Nehru National Institute of Technology Allahabad, Prayagraj

1620-1640	IL 071: A New Generation of Biofertilizers: <i>Trichoderma</i> -Driven Bioactivation of Organic Matrices, Fabrizio Adani, Università degli Studi di Milano, Milano, Italy	ROP 065 to ROP 068	IL 072: Integrative Computational Approaches for Safer and Sustainable Therapeutic Innovation, Ramakrishnan Parthasarathi, CSIR-Human Resource Development Group, New Delhi, India	IL 073: Thermal analysis of paper sludge from pulp and paper production, Pavel Maryandyshev, Northern (Arctic) Federal University, Arkhangelsk, Russia
1640-1700	TEA/COFFEE			
1700-1825	Session VIIIA: Advanced Bioprocessing & Biomanufacturing	Session VIIIB: Sustainable Environment & Circular Bioeconomy	Session VIIIC: Rapid Oral Presentations	Session VIID: Thermochemical Processing of Biomass
	Coordinator: Archana Tiwari AU, Noida	Coordinator: Ranjna Sirohi SKNAU, Jaipur	Coordinator: Praveenkumar R AEC, Tiruvannamalai	Coordinator: Baskar Gurunathan SJCE, Chennai
	Chairs: Mohammad Taherzadeh, Sweden & Sangeeta Srivastava, India	Chairs: RD Tyagi, Canada & AB Gupta, India	Chairs: Kazumi Hirano, Japan & Ajaikumar B Kunnumakkara, India	Chairs: Santi Chuetor, Thailand & Ashish Sawarkar, India
1700-1725	PL 019: Bioprocess Hybrid Modeling for Optimization and Control: Advancing Sustainability through Digitalization, Rui Oliveira, Universidade NOVA de Lisboa, Caparica, Portugal	PL 020: Circular Bio-Economy Business Models for Forest-Based Indian Entreprises, Sasmita Mohanty, Siksha O Anusandhan University, Bhubaneswar, India	ROP 069 to ROP 090	PL 021: Engineering Waste-Derived Biochar for Energy Storage via Catalytic Pyrolysis and Surface Functionalization, Payam Ghorbannezhad, Karlsruhe Institute of Technology, Eggenstein-Leopoldshafen, Germany
1725-1745	IL 074: Microbial Biosphere and Bioeconomy: Harnessing Biotechnology Innovations for sustainable Environment, Agriculture, Health, Food and Industry, Charles Adetunji, Edo University Iyamho, Edo, Nigeria	IL 075: Conductive Materials-Assisted Microbial Bioprocesses for CO ₂ Valorization, Biogas Upgradation, and Wastewater Management, Sunil A Patil, Indian Institute of Science Education and Research, Mohali		OP 046: Microwave-Assisted Extraction of Coconut Coir Lignin for Reinforcing Polylactic Acid Biocomposite Films, U Jayakrishnan, SRM Institute of Science and Technology, Kattankulathur, Tamil Nadu (1725-1735h)

1745-1805	IL 076: Digital Bioprocess Monitoring Using Computer Vision and Artificial Intelligence: Advances in Solid-State Fermentation, Akhilesh Tiwari, Indian Institution of Information Technology Allahabad, Prayagraj	IL 077: Bioelectric Toilet: Microbial Fuel Cell based Human Waste Treatment System, Indrasis Das, Indian Institute of Technology Kharagpur		ROP 091 to ROP 098
1805-1825	IL 078: Integrated Biotechnologies for Complex Aquatic Systems: From Concept to In-Situ Implementation, Kishore M Paknikar, COEP Technological University, Pune, India	ROP 099 to ROP 101		
1900-2000	DINNER			
<u>25th October 2026</u>				
0900-1010	Session VIIIA: Biofuels and Biorefineries	Session VIIIB: Wastewater Treatment	Session VIIC: Drug Design, Development and Treatment	Session VIID: New and Fermented Food
	Coordinator: Sindhu Raveendran SSIRI, Trivandrum	Coordinator: Reeta Rani Singhania NKUST, Taiwan	Coordinator: Praveenkumar R AEC, Tiruvannamalai	Coordinator: Archana Tiwari AU, Noida
	Chairs: Raj Boopathy, USA & Ayon Tarafdar, India	Chairs: Maria H Ribeiro, Portugal & Mohana Krishna Reddy Mudiam, India	Chairs: Tomoyo Ochishi, AIST, Japan & Jaspreet Kaur Dhanjal, India	Chairs: Payam Ghorbannezhad, Germany & Akhilesh Tiwari, India
0900-0925	PL 022: Navigating the Green Transition: Biorefineries and Bio-based Chemicals, Sangeeta Srivastava, Godavari Biorefineries Ltd, Mumbai	PL 023: Wastewater sludge as a supplementary carbon and nutrients Source in low-cost polyhydroxialkanoates synthesis, RD Tyagi, BOSK Bioproducts, Quebec, Canada	PL 024: Targeting Mortalin in Oral Cancer: Mechanistic Insights into the Anticancer Action of Withaferin A, Ajaikumar Bahulayan Kunnumakkara, Indian Institute of Technology, Guwahati	PL 025: Lipidomic profiling of seafood Roe: Transforming food waste into health-promoting resources, Siddabasave Gowda B Gowda, Hokkaido University, Sapporo, Japan

0925-0950	PL 026: Dry Fermentation for a Thirsty Planet using Filamentous Fungi and Bacteria, Mohammad Taherzadeh, Millow AB, Sweden	PL 027: Deep constructed wetlands for wastewater treatment exploiting different novel microbial processes for organics and nutrient removal- Some case studies, AB Gupta, Malaviya National Institute of Technology, Jaipur	PL 028: Anti-aging Potential of Withanone - Experimental Evidence, Kazumi Hirano, National Institute of Advanced Industrial Science and Technology, Tsukuba, Japan	PL 029: Advances and Perspectives in Alternative Proteins: Biomass Fermentation, Precision Fermentation and Cultivated Meat, Susan Grace Karp, Federal University of Parana, Curitiba, Brazil
0950-1010	IL 079: One-pot production of biodiesel from algal oil into biodiesel using a magnetically recyclable basic ionic liquid catalyst, Baskar Gurunathan, St Joseph's College of Engineering, Chennai	IL 080: Biochar-mediated regulation of microbial community assembly and methanogenic pathways: Integrative mechanistic insights in anaerobic digestion of food waste, Mukesh Kumar Awasthi, North-west A&F University, Yangling, China	IL 081: Nestin as a Modulator of Cytoskeletal Architecture in Metastatic Cancer Cells, Ayana (Yamagishi) Seki, National Institute of Advanced Industrial Science & Technology, Tsukuba, Japan	IL 082: Bioproduction and Physicochemical Characterization of Levan-Like Exopolysaccharide from <i>Paenibacillus polymyxa</i> (IIIM-VV8), Vinod Kumar, CSIR – Indian Institute of Integrative Medicine, Jammu, India
1010-1040	TEA/COFFEE			
1040-1210	YOUNG RESEARCHERS-INDUSTRIES INTERACTIVE SESSION Chair & Moderator: Dr Raghavendra Gaikawari, Chairman & Managing Director, Hi-tech Biosciences Ltd, Pune Panelists: Dr Sangeeta Srivastava, Executive Director, Godavari Biorefineries, Mumbai Dr Vivek S Agarwal, Chairman, Institute of Chartered Waste Managers, Jaipur Dr Pawankumar Rai, Director, ANIVID Research and Development Private Limited, Lucknow Dr Dattatray Bedade, Senior Manager, SK Biobiz Pvt Ltd, Nashik			
1210-1245	CLOSING SESSION – Declaration of Best Paper Awards and venues for XXIV BRSI Convention & Pre-conference			
1245-1330	LUNCH			