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Poster no.	Title	Authors	University/Instiute	Theme
PP001	Design and Process Optimization of an Integrated Platform for enhanced microalgal productivity	Aakash Verma, Abhishek Saxena, Archana Tiwari*	Amity University, Noida	Bioprocessing and Biomanufacturing Technology
PP002	Biodiesel production from microalgae <i>Schizochytrium</i> sp using immobilized whole cell lipase biocatalyst	R Selvaraj, S Naveen, R Praveenkumar	Arunai Engineering College, Tiruvannamalai	Bioprocessing and Biomanufacturing Technology
PP003	Cognitive Biofoundry 5.0: Co-evolution for autonomous self-learning Bioprocess Engineering	Shamroz Abrar ¹ , Nazish Baliyan ²	¹ Thapar Institute of Engineering & Technology, Patiala, India; ² Mohamed bin Zayed University of Artificial Intelligence, Abu Dhabi, UAE	Bioprocessing and Biomanufacturing Technology
PP004	Production optimization and extraction of biosurfactants from <i>Lactiplantibacillus plantarum</i> for anti-cariogenic applications	Anaswara PA ^{1,2} , K Madhavan Nampoothiri ^{1,2}	¹ CSIR-National Institute for Interdisciplinary Science and Technology, Thiruvananthapuram; ² Academy of Scientific and Innovative Research, Ghaziabad.	Bioprocessing and Biomanufacturing Technology
PP005	Sustainable Production of 2,5-Furandicarboxylic Acid (FDCA) from Lignocellulosic Biomass for Bio-Based Polymer Development	Meshram Sheetal Milind, Rama Raju B	National Institute of Technology, Warangal,	Bioprocessing and Biomanufacturing Technology
PP006	From Rice straw to polyamides: 5-aminovaleic acid and putrescine production using <i>Corynebacterium glutamicum</i>	Keerthi Sasikumar ^{1#} , Madhavan Nampoothiri. K ^{1#}	¹ CSIR-National Institute for Interdisciplinary Science and Technology, Thiruvananthapuram; [#] Academy of Scientific and Innovative Research, Ghaziabad	Bioprocessing and Biomanufacturing Technology
PP007	Circular Bioeconomy Approach for Sustainable Goat Skin Dehairing Using a Synergistic Keratinase–Protease System	Susovan Patra ¹ , Hilaluddin ² , Arijit Jana ¹ , Suman Kumar Halder ³ , Keshab Chandra Mondal ^{1*}	^{1,2} Vidyasagar University, Paschim Medinipur, India; ³ Vivekananda Mahavidyalaya, Burdwan	Bioprocessing and Biomanufacturing Technology
PP008	Bioengineering of Gas Vesicle Protein Nanoparticles for Emerging Biotechnological Applications	Anjali Gupta, Ayushi Singh, Ashish Gaurav, Shubham Pandey, Bhavna Parmar, Ram Karan*	University of Delhi South Campus, New Delhi	Bioprocessing and Biomanufacturing Technology
PP009	Exploring Media-Dependent Carotenoids Production in Indigenous Microalgal Isolates <i>Chlorella sorokiniana</i> VM3 and <i>Scenedesmus</i> sp. VM6	Vandana, Ramasare Prasad	Indian Institute of Technology Roorkee, Roorkee	Bioprocessing and Biomanufacturing Technology
PP010	Valorization of banana pseudo-stem fiber via enzymatic treatment for eco-friendly dye decolorization	Tanmoy Jana, Keshab Chandra Mondal*	Vidyasagar University, Midnapore, India	Bioprocessing and Biomanufacturing Technology
PP011	Mycelial-bound biocomposite: Sustainable Biomaterial from Fungal Mycelia and Lignocellulosic Waste	Payal Guleria, Prangya Ranjan Rout*	Dr. B. R. Ambedkar National Institute of Technology Jalandhar	Bioprocessing and Biomanufacturing Technology
PP012	Bioethanol Production from Rice Straw Using <i>Trichoderma reesei</i> Hydrolysis Enzymes through Immobilized <i>S. cerevisiae</i>	Chiranjiv Chaudhary, R.S. Sengar, Pankaj Chauhan, Shivangi Tyagi	Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut	Bioprocessing and Biomanufacturing Technology
PP013	Sustainable cultivation of freshwater diatoms (<i>Nitzschia palea</i>) from eutrophic Yamuna: Biomass Production and water quality improvement	Sneha Sindhwal, Rinku, Abhishek Saxena, Archana Tiwari*	Amity University, Noida	Bioprocessing and Biomanufacturing Technology
PP014	Valorization of sugarcane bagasse for sustainable production of xylanase and xylooligosaccharides using <i>Bacillus subtilis</i> WNA1	Akshita Sharma, Loreni Chiring Phukon, Rounak Chourasia, Khrievono, Rajshekhar Dolai, Amit Kumar Rai*	National Agri-Food and Biomanufacturing Institute, Mohali	Bioprocessing and Biomanufacturing Technology
PP015	Metabolic Engineering to Utilize Endogenous High Isoprenoid Flux in <i>Azospirillum brasilense</i> for Heterologous α -Humulene Production	Dattesh Bala Saranga, Amrita Singh, Kiran NR, Mukti N Mishra	CSIR-Central Institute of Medicinal and Aromatic Plants Research Centre, Bengaluru	Bioprocessing and Biomanufacturing Technology
PP016	Prebiotic potential and in vitro fermentation of pectin and pectin-oligosaccharides derived from kinnow waste through microwave-assisted extraction	Raja Bhaiyya ^{a,b} , Dipak Gayen ^c , Sukesh Chander Sharma ^b , Ravindra Pal Singh ^{a*}	^a Gujarat Biotechnology University, Gandhinagar; ^b Panjab University, Chandigarh; ^c Central University of Rajasthan, Ajmer,	Bioprocessing and Biomanufacturing Technology

PP017	Synergistic impact of elevated CO ₂ and photo-bioreactor illumination surface area on marine microalgal biomass and bio-chemicals production	<u>Bhavika Mehta</u> ^{1,3} , V. Isaimozhi ^{2,3} , V. Ajithkumar ^{2,3} , Arup Ghosh ^{1,3} , Ramalingam Dineshkumar ^{1,2,3}	¹ CSIR-Central Salt and Marine Chemicals Research Institute, Bhavnagar; ² CSIR-Central Salt and Marine Chemicals Research Institute, Mandapam; ³ Academy of Scientific and Innovative Research, Ghaziabad;	Bioprocessing and Biomanufacturing Technology
PP018	Dual Potential of a Biosurfactant: Phytopathogen Suppression and Enhancing Plant Growth (IBB5)	<u>Samridhi Syal</u> , Neeraj Shrivastava	Amity University, Noida, Uttar Pradesh	Bioremediation and Environmental Biotechnology
PP019	Advance biocatalyst for the green conversion of 5-hydroxymethylfurfural to a biopolymer precursor 2,5-furandicarboxylic acid	<u>Lata Pawar</u> ^{1,2} , Pramod Kumar ³ , Rishu Dhiman ^{1,2} , Divya Mittal ¹ , Ashutosh Kumar ¹ , Rituraj Purohit ³ , Sudesh Kumar Yadav ^{1,3,*}	¹ Center of Innovative and Applied Bioprocessing, Mohali; ² Indian Institute of Science Education and Research, Mohali; ³ CSIR-Institute of Himalayan Bioresource Technology, Palampur	Bioremediation and Environmental Biotechnology
PP020	Effect of nanobubbles on the growth of <i>Bacillus subtilis</i> and metabolite production	Rahul Kumar Rawat	Indian Institute of Technology, Ropar	Bioremediation and Environmental Biotechnology
PP021	Silver Nanoparticles from Marine and Freshwater Diatoms: Synthesis, Characterization, and Applications	<u>Stanzen Angmo</u> , Abhishek Saxena, Archana Tiwari*	Amity University, Noida	Bioremediation and Environmental Biotechnology
PP022	Metal-resistant Mesophilic Laccase from <i>Achromobacter</i> Species: Identification, Physical Characterization, and Dye Bioremediation	<u>Krishika Aneja</u> ^{1,2} , Anjali Purohit ¹ , Sudesh Kumar Yadav ^{1,3,*}	¹ BRIC-National Agri-Food and Biomanufacturing Institute, Mohali, India; ² Indian Institute of Science Education and Research, Mohali, India.; ³ CSIR-Institute of Himalayan Bioresource Technology, Palampur	Bioremediation and Environmental Biotechnology
PP023	An integrated approach for the development of a microbial consortium for polystyrene biodegradation	<u>M Shehbas Chekkath</u> ^{1,2} , K Madhavan Nampoothiri ^{1,2}	¹ CSIR-National Institute for Interdisciplinary Science and Technology, Thiruvananthapuram; ² Academy of Scientific and Innovative Research, Ghaziabad	Bioremediation and Environmental Biotechnology
PP024	Detection of micro and nanoplastics (MNPs), toxicity analysis and biodegradation	<u>Akshay Kumar</u> , Kashyap Kumar Dubey	Jawaharlal Nehru University, New Delhi	Bioremediation and Environmental Biotechnology
PP025	Elucidating the synergistic role of <i>Bacillus velezensis</i> DW2115 in multimetal remediation and mangrove growth promotion	<u>Sharmily Chakraborty</u> , Surajit Das	National Institute of Technology, Rourkela	Bioremediation and Environmental Biotechnology
PP026	Physiological and genomic characterization of a halophilic ectoine producing <i>Oceanobacillus</i> sp. PV4T10 isolated from subsurface igneous rock underneath the Deccan Traps	<u>Abhisek Sahu</u> , Mouli Bhattacharyya, Plaban K Saha, Sufia K Kazy *	National Institute of Technology Durgapur, Durgapur	Bioremediation and Environmental Biotechnology
PP027	Isolation and Characterization of Iron and Sulphate Reducing Bacteria from Acid Mine Drainage Sites for Effective Bioremediation	<u>Dhruvi N. Hirani</u> ¹ , Shweta Agrawal, <u>Devayani R. Tipre</u> ^{1*}	Gujarat University, Ahmedabad,	Bioremediation and Environmental Biotechnology
PP028	Impact of dynamic condition and <i>Escherichia coli</i> on the Corrosion behavior of Aluminium alloys	<u>Madhulika Chakravarty</u> , Swati Singh, Meenaz Sangolli, Salmataj S*	Manipal Academy of Higher Education, Manipal	Bioremediation and Environmental Biotechnology
PP029	Role of Extracellular Polymeric Substances (EPS) of <i>Ochrobacterium pseudintermedium</i> in reduction of Arsenic	<u>Anumita Dey</u> , Sriparna Datta*	University of Calcutta, Kolkata	Bioremediation and Environmental Biotechnology
PP030	Multi-nutrient leaching dynamics and phosphorus speciation in soil columns amended with fungal biomass	<u>Jennifer Michellin Kiruba N</u> , Marcin Sojka, <u>Agnieszka Saeid</u> *	Politechnika Wroclawska, Wroclaw, Poland	Bioremediation and Environmental Biotechnology
PP031	<i>Acinetobacter seifertii</i> : A Novel Microorganism for the Sustainable Production of Poly -Hydroxy Butyrate (PHB)	<u>V S Athira</u> ^{1,2} , Parameswaran Binod ^{1,2}	CSIR-National Institute for Interdisciplinary Science and Technology, Thiruvananthapuram	Bioremediation and Environmental Biotechnology
PP032	Screening and optimization of growth media components for the production of esterase from <i>Alcaligenes</i> sp.	<u>Sneha Elsa Thomas</u> ^{a,b} , Sathieesh Sounderarajan ^{c,d} , Kannan Natarajan ^a , Motilal Mathesh Shanmugham ^b , Dinesh Sankar Reddy Puchalapalli ^c , Seenivasan Ayothiraman ^d	^a Manipal Academy of Higher Education, Manipal, India; ^b Deakin University, Geelong, Australia; ^{c,d} National Institute of Technology, Andhra Pradesh, Tadepalligudem,	Bioremediation and Environmental Biotechnology

PP033	Potential application of Zinc Oxide Nanoparticles towards Waste Water Treatment and Antibacterial activity	<u>Sukirti</u> , Anshu Sharma, Kritika Sharma, Indu Bhushan	Shri Mata Vaishno Devi University, Katra, Jammu and Kashmir	Bioremediation and Environmental Biotechnology
PP034	Exploring Microbial Exopolysaccharides as Sustainable Agents for Synthetic Industrial Dye Degradation	<u>Sinigdha Mitra</u> , Sumer Singh Meena	Dr. B. R. Ambedkar National Institute of Technology Jalandhar	Bioremediation and Environmental Biotechnology
PP035	Analytical Perspectives on Enzyme-Microplastic Catalytic Hotspots for Potential Bioremediation	<u>Kanchan Yadav</u> [*] , Deenan Santhiya ^{1*} , Jai Gopal Sharma [*]	¹ Delhi Technological University, Delhi	Bioremediation and Environmental Biotechnology
PP036	Isolation and Screening of Alkaline Protease Producing Microbial Strains	<u>Somya Jain</u> , Shalini Chaudhary, Smriti Shrivastava	Amity University, Noida	Bioremediation and Environmental Biotechnology
PP037	Enzyme-Driven Bioremediation of Antibiotics in Wastewater: Structural Docking Approaches for Sustainable Treatment	<u>Anistha</u> ¹ , Deenan Santhiya [*] , Jai Gopal Sharma [*]	Delhi Technological University, Delhi	Bioremediation and Environmental Biotechnology
PP038	Immobilized Fungal Consortia for Enhanced Biodegradation of Textile Azo Dyes with Plant Growth Promotion	<u>Mridula Chaturvedi</u> , Bhawana Kumari, <u>Navpreet Kaur</u> , Purnima Varshney, Shashi Sharma [*]	Amity University, Noida,	Bioremediation and Environmental Biotechnology
PP039	Genomic and physiological characterization of an igneous rock-dwelling stresstolerant chemolithotrophic <i>Bacillus</i> sp. strain U7-15A for its CO ₂ bioconversion potential	<u>Mouli Bhattacharyya</u> , Abhisek Sahu, Plaban K Saha, Sufia K Kazy [*]	National Institute of Technology Durgapur, Durgapur	Bioremediation and Environmental Biotechnology
PP040	Synergistic Biofilm Inhibition and Eradication by Combined Garlic and Lantana camara Linn Extracts in Cooling Water Systems	<u>Suha Ibrahim</u> , Angana Sarkar	National Institute of Technology, Rourkela,	Bioremediation and Environmental Biotechnology
PP041	Enhanced photodegradation of synthetic dyes using graphitic carbon nitride-magnetic nanocomposites	<u>Rachit Saini</u> , Anee Mohanty [*]	Dr. B. R. Ambedkar National Institute of Technology, Jalandhar	Bioremediation and Environmental Biotechnology
PP042	Valorization of Bio-Based Adsorbents for Heavy Metal Removal: Equilibrium and Kinetic Insights	<u>Vikas Kumar Gupta</u> , Lalit Kumar Singh, <u>Rajkamal Kushwaha</u> [*]	Harcourt Butler Technical University, Kanpur	Bioremediation and Environmental Biotechnology
PP043	A Deep Learning Approach: for Automated Microalgae Classification	<u>Rajalakshmi Elumalai</u> ¹ , Karthikeyan Meenatchi Sundaram ² , Karthik Rajendran ¹	^{1,2} SRM University-AP, Amaravati	Bioremediation and Environmental Biotechnology
PP044	<i>Desmonostoc magnisporum</i> mediated cyanobacterial biorefinery for domestic wastewater treatment	<u>Shrey Dube</u> , Prasad Andhare, Prashasti Chadha, Palash Mandal, Bhargavi Sonavane, Mandar Kulkarni, Bhavtosh Kikani, <u>Datta Madamwar</u> [*]	Charotar University of Science and Technology, Changa	<i>Bioremediation and Environmental Biotechnology</i>
PP045	Bioremediation of Heavy Metals Using Thermophilic Bacteria Isolated from Hot Spring	<u>Ishika Rawat</u> , Pawani Sharma	Mohanlal Sukhadia University, Udaipur	Bioremediation and Environmental Biotechnology
PP046	Statistical Optimization and Metabolite Analysis of Acid Yellow 137 Dye Biodegradation by Bacterial Consortium	<u>Riddhi M. Kathrotiya</u> ¹ , Nidhi Y. Patel ¹ , Shivani V. Raval ^{1,2} , Vikram H. Raval ^{1*}	¹ Gujarat University, Ahmedabad; ² M.G. Science Institute, Ahmedabad	Bioremediation and Environmental Biotechnology
PP047	A Multifunctional Exopolysaccharide from Marine Cyanobacterium <i>Synechococcus</i> : Characterization and Application Potential	<u>Prasad Andhare</u> ¹ , Bhargavi Sonavane ² , Shrey Dube ² , Digambar Kavitate ³ Bhavtosh Kikani ² , Datta Madamwar ^{2*}	¹ GSFC University, Vadodara; ² CHARUSAT University, Changa; ³ ICMR - National Institute of Nutrition, Hyderabad	Bioremediation and Environmental Biotechnology
PP048	Screening and Isolation of Exopolysaccharides from Microalgae and Cyanobacteria	<u>Garima</u> , Vandana, Deepanshi Upadhyay, Ramasare Prasad [*]	Indian Institute of Technology Roorkee, Roorkee	Bioremediation and Environmental Biotechnology
PP049	Diatomaceous Earth-Assisted Biosynthesis of Silver Nanoparticles and Its Biomedical Applications	Ayushmaan Srivastava, Rinku Kaushik, Abhishek Saxena, Archana Tiwari [*]	Amity University, Noida	Drug Development and Medical Biotechnology
PP050	Sensitive Detection of Rheumatic Disorders: Biosensor Development Targeting gDNA and Interleukin Signatures	<u>Rajat Pandey</u>	Indian Institute of Technology Delhi	Drug Development and Medical Biotechnology
PP051	Valorization of Bamboo Biomass into Multifunctional Hydrogels for Antibacterial and Wound-Healing Applications	<u>Pawan Baghmare</u>	Indian Institute of Science Education and Research, Bhopal	Drug Development and Medical Biotechnology
PP052	<i>Design, Synthesis, and Antimicrobial Evaluation of Rhamnolipid Derivatives: A Promising Approach to Combat Antimicrobial Resistance</i>	<u>Shivani Chauhan</u> , Anee Mohanty, Sumer Singh Meena	Dr. B. R. Ambedkar National Institute of Technology Jalandhar	<i>Drug Development and Medical Biotechnology</i>

PP053	Diatom-Derived Fucoxanthin: A Novel Approach to Skin Brightening and Photoprotection	<u>Aishneet Kaur</u> , Rinku Kaushik, Abhishek Saxena, Archana Tiwari*	Amity University, Noida	Drug Development and Medical Biotechnology
PP054	Optimization for high-level production of Russell's viper venom-specific single-domain antibody in <i>Pichia pastoris</i>	<u>Shivani Chauhana</u> , Mohini Talwara, Priya Sinhaa, Shubham Sharma, Priya Maravia, Sharvan Sehrawatb, Y. P. Khasaa*	University of Delhi South Campus, New Delhi	Drug Development and Medical Biotechnology
PP055	Quercetin and Citreorosein from <i>Halodule uninervis</i> Leaf Shows Best Binding Against Breast Cancer Targets AKT1, EGFR and ESR1	<u>Tapas Ranjan Samal</u> 1, Priyankar Sen1*	Vellore Institute of Technology, Vellore	Drug Development and Medical Biotechnology
PP056	Virtual Screening of Natural Products Against GlmM of <i>Mycobacterium tuberculosis</i> : Implications for Broad-Spectrum Therapy Against ESKAPE Pathogens	<u>Rohitth Raj EB</u> , Amitava Bandh*	National Institute of Technology Warangal, Warangal	Drug Development and Medical Biotechnology
PP057	Designing In silico multi-epitope vaccine with mucosal adjuvant to combat Giardiasis	<u>Sandhya Dubey</u> , V. Kohila*	National Institute of Technology Warangal, Warangal	Drug Development and Medical Biotechnology
PP058	Development of Pectin based Therapeutics from <i>Berberis aristata</i> for Combating Drug Resistant <i>Enterococcus</i>	Pallavi Gaur ¹ , Neha Chauhan ²	Shri Guru Ram Rai University Dehradun,	Drug Development and Medical Biotechnology
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PP061	<i>In Silico</i> Immunoinformatics-Driven Design of a Multi-Epitope Vaccine Against <i>Leishmania donovani</i>	<u>Aviral Kaushik</u> ¹ , Manisha Pritam ² , Sumit Govil ³ , Radhey Shyam Kaushal ^{1*}	¹ Parul University, Vadodara, India; ² NIAD, NIH, Bethesda, USA; ³ Jaipur National University, Jaipur, India;	Drug Development and Medical Biotechnology
PP062	In silico screening of flavonoids targeting Staphylococcal Enterotoxin A: binding insights and inhibitory potential	<u>Nehashri Laha</u> , Ravi Kant Avvari	National Institute of Technology Rourkela,	Drug Development and Medical Biotechnology
PP063	Optimization for cost-effective production of therapeutically important human leptin hormone in <i>Escherichia coli</i>	<u>Mohini Talwar</u> , Babbal, Shilpa Mohanty, Shivani Chauhan, Priya Sinha, Shubham Sharma, Yogender Pal Khasa*	University of Delhi, Delhi	Drug Development and Medical Biotechnology
PP064	Advances and Emerging Trends in Vaccine Research: Indian and Global Perspectives	<u>Vedant Vashishtha</u> , Surya Prakash DV	Meerut Institute of Engineering and Technology, Meerut	Drug Development and Medical Biotechnology
PP065	Historical Insights into Cancer Pathogenesis and Therapeutic Strategies	<u>Varsha Kumari</u> , Surya Prakash DV	Meerut Institute of Engineering and Technology, Meerut	Drug Development and Medical Biotechnology
PP066	Comparative Study of Snake and Bee Venom Phospholipase A2 as Anticancer Agents on MCF7 Breast Cancer Cells	<u>Poonam Kumari Pathak</u> , Ayushi Gupta, Rahul Shrivastava*	Maulana Azad National Institute of Technology, Bhopal,	Drug Development and Medical Biotechnology
PP067	<i>In silico</i> Design of a Multi-Epitope Vaccine Candidate for Rheumatoid Arthritis	R Brindhaa, <u>Nupur Pathak</u> , V. Kohila*	National Institute of Technology Warangal,	Drug Development and Medical Biotechnology
PP068	Inflammation induced expression of RhoG in monocytes and neutrophils regulates cell migration and inflammatory functions	<u>Divya Singh</u> , Nibedita Dalpati, Pankaj Dipankar, Prerna Sharma, Saloni Gupta, Shubham Kumar Rai, Pranita P. Sarangi ^{1*}	Indian Institute of Technology Roorkee, Roorkee	Drug Development and Medical Biotechnology
PP069	Evaluating the Biocatalytic and Therapeutic Potential of a Halophilic L-Asparaginase from <i>Halomonas pacifica</i> DJ6.1	<u>Disha Joshi</u> , Darshan Patel, Bhavtosh Kikani*	Charotar University of Science & Technology, Changa	Drug Development and Medical Biotechnology
PP070	<i>In Silico</i> Identification of Phytocompound Inhibitors Targeting NLRP3 Inflammasome for Oral Cancer Therapy	<u>Shatakshi Narang</u> , Manish Dwivedi, Sayali Mukherjee	Amity University, Noida	Drug Development and Medical Biotechnology
PP071	SIRT1 Inactivation as a Key Mechanism in Tributyltin Chloride-Induced Obesity and Metabolic Dysfunction	<u>Shruti Sharan</u> ^{1,2} , Partha Roy ²	¹ Trident Academy of Creative Technology, Bhubaneswar; ² Indian Institute of Technology Roorkee, Roorkee	Drug Development and Medical Biotechnology

PP072	Proteomics-Based Identification and Validation of Potential Biomarkers in Head and Neck Squamous Cell Carcinoma	<u>Gokul Arora</u> ^{a,b} , <u>Sumiran Singh</u> ^a , Poonam Joshi ^c , Shwetabh Sinha ^d , Ashok K Varma ^{a,b}	^{a,c,d} Advanced Centre for Treatment, Research and Education in Cancer, Tata Memorial Centre, Navi Mumbai; ^b Homi Bhabha National Institute, Training School Complex, Mumbai;	Drug Development and Medical Biotechnology
PP073	Mutational Landscape of the GyrA Subunit of DNA Gyrase Conferring Enhanced Quinolone Resistance	<u>Mohd Salman</u> ^a , Mukesh Kumar ^b , Ekta Sachdeva ^c , Punit Kaur ^a	^a Department of Biophysics, All India Institute of Medical Sciences, New Delhi. 110029, India	Structural and Molecular Biotechnology
PP074	Multimeric interacting interface of biologically synthesized zinc oxide nanoparticle corona efficiently sequesters α -synuclein against the protein fibrillation	<u>Harshit Kalra</u> , Sonali Jena, Kumari Subham, Suman Jha	National Institute of Technology Rourkela	Drug Development and Medical Biotechnology
PP075	<i>In silico</i> evaluation of herbal compounds as potential anticancer agents against lung cancer	<u>Priyanka Yadav</u> ¹ , Anuj Kumar ^{2*} , Rachana R ^{1*}	¹ Jaypee Institute of Information Technology, Noida; ² ICMR, National Institute of Cancer Prevention and Research, Ministry of Health and Family Welfare, Government of India, Noida	Drug Development and Medical Biotechnology
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PP082	From food waste to citramalic acid; a biorefinery approach using engineered <i>Pichia pastoris</i>	<u>Satwika Das</u> , Ashish A Prabhu	National Institute of Technology Warangal, Telangana	Food and Agricultural Biotechnology
PP083	Health-promoting exopolysaccharides from probiotic <i>Pediococcus pentosaceus</i> (FSG6): A promising biopolymer	<u>Rahul Kumar Das</u> , Manabendra Mandal*	Tezpur University, Napaam, Tezpur	Food and Agricultural Biotechnology
PP084	Development and characterization of a tunable metal-organic framework (MOF) for the synthesis of a rare sugar d-tagatose	<u>Shushil Kumar Rai</u> , Simran Bhatia, Rishu Dhiman, Divya Mittal, Sudesh Kumar Yadav*	Center of Innovative and Applied Bioprocessing, Mohali, Punjab	Food and Agricultural Biotechnology
PP085	Immobilization of β -1,4-endoxy lanase onto Zeolitic Imidazolate Framework for Efficient Xylooligosaccharide production	<u>Shraddha Suman Smitaa</u> , N. Nagarjunb, <u>Krishnan Chandraraja*</u> , <u>Parasuraman Selvam</u> ^{b,c*}	^a Indian Institute of Technology Madras, Chennai, India; ^b Indian Institute of Technology Madras, Chennai, India; ^c Kumamoto University, Kumamoto, Japan	Food and Agricultural Biotechnology
PP086	Bioactive postbiotic from pigment-producing bacterium <i>Kocuria marina</i> DAGII: From food safety to nutraceutical use	<u>Sanhita Saha</u> , Debjani Dutta*	National Institute of Technology Durgapur, Durgapur	Food and Agricultural Biotechnology
PP087	Valorization of rice straw into a valuable pigment: Prodigiosin	<u>Priyanka</u> ^{1,2} , M. Krishania ^{1*}	¹ BRIC-National Agri-food and Biomanufacturing Institute, Mohali, Punjab; ² Indian Institute of Science Education and Research, Mohali, Punjab,	Food and Agricultural Biotechnology
PP088	Functionalization of Larch Wood Arabinogalactan for Enhanced Biomedical Applications	<u>Pallavi Sharma</u> , Sumer Singh Meena	Dr B R Ambedkar National Institute of Technology, Jalandhar	Food and agricultural biotechnology
PP089	Harnessing agro-industrial waste: Mushroom spent mycelia for sustainable remediation of metal-containing effluent	<u>Kirti Bala</u> , Devayani Tipre*	Gujarat University, Ahmedabad	Food and agricultural biotechnology

PP090	Hippocampal and cerebellar cortical regions in human brains show differential protein signatures in an APOE isoform dependent manner	<u>Divyanshu Darshna</u> ¹ , Arpita Das ¹ , Ajay Kumar ² , Anita Mahadevan ³ , Srinivas Kiran Ambatipudi ¹ , Sachin Suresh Tiwari ¹	¹ Department of Biosciences and Bioengineering, Indian Institute of Technology, Roorkee, India.	Drug Development and Medical Biotechnology
PP091	Isolation, Screening and identification of new protease producing microbes for sustainable cheese manufacturing	<u>Shalini Chaudhary</u> ¹ , <u>KVTS Pavan Kumar</u> ² , <u>Smriti Shrivastava</u> ^{1*}	Amity University, Noida	Food and agricultural biotechnology
PP092	From Tradition to Biotechnology: Tari as a Sustainable Source of Functional Nutrition Maintaining Nutritional Sustainability with the fermentation approach	<u>Dipanwita Sinha</u> , Akalankam Ramya, Shreya Mukherjee, Oindrilla Mukherjee, Debjani Dutta	National Institute of Technology, Durgapur	Food and agricultural biotechnology
PP093	Eco-Friendly Synthesis of Silver-Copper Bimetallic Nanoparticles using <i>Trichoderma harzianum</i> for Stress-Resilient Agriculture	<u>Vaibhav Singh</u> ¹ , Juhi Saxena ^{2*}	^{1,2} Parul University, Vadodara	Food and agricultural biotechnology
PP094	Green Synthesis of Iron Oxide Nanoparticles using <i>Carissa opaca</i> Extract: Potential Applications in Wastewater Treatment.	<u>Anshu Sharma</u> , Sukirti, Kritika Sharma, Indu Bhushan	Shri Mata Vaishno Devi University, Katra, Jammu and Kashmir	Food and agricultural biotechnology
PP095	Metagenomic insights into soft chhurpi and leveraging probiotic yeasts isolated from the traditional cheese for development of lactose-free functional products	<u>Md Minhajul Abedin</u> ^{1,2} , Rounak Chourasia ² , Loreni Chiring Phukon ² , Puja Sarkar ² , <u>Gunika</u> , Anee Mohanty [*]	¹ Mizoram University, Aizawl, India; ² BRIC-National Agri-Food and Biomanufacturing Institute, Mohali; ³ Gujarat Biotechnology University, Gandhinagar	Food and agricultural biotechnology
PP096	Sustainable Valorization of Dry Fruit Waste: A Green Approach to synthesize Lignin Nanoparticle using Deep Eutectic Solvents for environmental Applications	<u>Gunika</u> , Anee Mohanty [*]	Dr. B. R. Ambedkar National Institute of Technology Jalandhar	Food and agricultural biotechnology
PP097	Polymicrobial biofilm of <i>Pseudomonas oryzae</i> GAT2212B and <i>Aspergillus niger</i> KCRE2202F promotes root colonization and growth of mangrove plant <i>Avicennia officinalis</i> L	<u>Sourav Kumar Panda</u> , Surajit Das	National Institute of Technology, Rourkela	Food and agricultural biotechnology
PP098	Peptidomic insight reflecting presence of multifunctional peptides and bacteriocin fragments in probiotic rich fermented milk produced using mix culture fermentation using strains isolated from traditional chhurpi from Sikkim Himalayan region	<u>Puja Sarkar</u> ^{1,2} , Rounak Chourasia ¹ , Md Minhajul Abedin ¹ , Srichandan Padhi ³ , Amit Kumar Rai ^{1,4}	BRIC-National Agri-Food and Biomanufacturing Institute, Mohali, Punjab; Punjab University, Chandigarh; Chandigarh University, Mohali, India; Institute of Bioresources & Sustainable Development, Gangtok, Sikkim,	Food and agricultural biotechnology
PP099	Evaluation of Anticancer Potential of Probiotic <i>Bacillus amyloliquefaciens</i> KMH10 in Azoxymethane/DSS-induced Colorectal Cancer	<u>Hilaluddin</u> ¹ , Susovan Patra ² , Tanmoy Jana ² , Arijit Jana ² , Keshab Chandra Mondal ^{2*}	^{1,2} Vidyasagar University, Paschim Medinipur	Food and agricultural biotechnology
PP100	Unveiling the Genetic Versatility of CspG and CspI in <i>E. coli</i> : Beyond Cold Shock Response	<u>Kiran Dhami</u> , Evieann Cardoza, Harinder Singh	NMIMS Deemed to be University, Vile Parle (West), Mumbai	Structural and Molecular Biotechnology
PP101	Structural and Biochemical studies of GRCS Phage derived Putative Amidase Endolysin: Exploring its therapeutic potential against MRSA infections	<u>Sai Nandhini S</u> , Harshitha H N, Gopinath Krishnappa, Balasundaram Padmanabhan	National Institute of Mental Health and Neurosciences, Bengaluru	Structural and Molecular Biotechnology
PP102	Structural based drug design and inhibitor binding studies of nsp12-RNA dependent RNA polymerase enzyme of SARS-CoV 2 using flavonoid based scaffold as template	Basant Meena, Shamiya Anwar Kizhakkiniyakath, <u>Joshua Katta</u> , Deepa singh, Krishna Kishore Inampudi, Gururao Hariprasad ^a	All India Institute of Medical Sciences, Ansari Nagar, New Delhi	Structural and Molecular Biotechnology
PP103	Different variants identified in RING-RING domains of BRCA1 and BARD1 disrupt the protein folding and binding affinity	<u>Jahnavi Singha</u> ,b, Ashok K Varmaa,b	Advanced Centre for Treatment, Research and Education in Cancer, Tata Memorial Centre, Navi Mumbai	Structural and Molecular Biotechnology
PP104	Molecular Characterisation and Statistical Optimisation and purification of Thermostable α -Amylase from <i>Laceyella sacchari</i> THS-B4	<u>Hiral Padia</u> ; <u>Krushali Jain</u> ; <u>Vaishnavi Goswami</u> ; <u>Devayani Tipre</u>	Gujarat University, Ahmedabad	Structural and Molecular Biotechnology
PP105	Uncovering β -1,6-galactan-degrading machinery: an exo- β -1,6-galactanase, <i>RfGH30</i> from <i>Ruminococcus flavefaciens</i> processively orchestrates its deconstruction	<u>Shreya Biswas</u> , <u>Gurleen Kaur Bagga</u> , <u>Manya Aggarwal</u> , Parmeshwar V. Gavande, <u>Arun Goyal</u>	Indian Institute of Technology Guwahati, Guwahati,	Structural and Molecular Biotechnology

PP106	Biochemical analysis of a putative recombinant polygalacturonase (ZgGH28B) of glycoside hydrolase family 28 from marine bacterium <i>Zobellia galactanivorans</i> DsijT	<u>Deblina Hota</u> ¹ , Carlos M.G. A. Fontes ² , Animes Kumar Golder ³ and Arun Goyal ^{1,4}	¹ Indian Institute of Technology Guwahati, India; ² NZYTech – Genes & Enzymes, Estrada do Paço do Lumiar, Lisbon, Portugal.	Structural and Molecular Biotechnology
PP107	Molecular cloning, expression and structural analysis of a putative pullulanase (BtGH13) of Glycoside Hydrolase family 13 from <i>Bacteroides thetaiotaomicron</i> VPI-5482	<u>Tiyasa Bhuniya</u> , Arun Goyal	Indian Institute of Technology Guwahati, Guwahati,	Structural and Molecular Biotechnology
PP108	Cloning, expression and structural analysis of a recombinant alginate lyase (<i>Bo</i> PL39) of polysaccharide lyase family 39 from <i>Bacteroides ovatus</i> ATCC 8483	<u>Kamalpreet Singh</u> , Arun Goyal	Indian Institute of Technology, Guwahati	Structural and Molecular Biotechnology
PP109	Structural and Functional Characterization of variants identified in BARD1 ARD BRCT domain	<u>Rahin Naz</u> ^a , Ashok K Varma ^{b,c} , N. Senthil Kumar ^a	^a Mizoram University, Mizoram; ^b Advanced Centre for Treatment, Research and Education in Cancer, Tata Memorial Centre, Navi Mumbai; ^c Homi Bhabha National Institute, Training School Complex, Mumbai.	Structural and Molecular Biotechnology
PP110	Structural and functional characterization of nitrilase-3 from <i>Corynebacterium glutamicum</i> for nitrile herbicides degradation	<u>Amrutha M</u> ^{1,2} , K Madhavan Nampoothiri ^{1,2}	¹ CSIR-National Institute for Interdisciplinary Science and Technology, Thiruvananthapuram; ² Academy of Scientific and Innovative Research, Ghaziabad.	Structural and Molecular Biotechnology
PP111	Structural basis and alterations in folding pattern caused by different variants identified in functional domains of promyelocytic leukemia (PML) gene	<u>Vaishali Singh</u> ^{a,b} , Ashok K Varma ^{a,b}	^a Advanced Centre for Treatment, Research and Education in Cancer, Tata Memorial Centre, Navi Mumbai; ^b Homi Bhabha National Institute, Training School Complex, Mumbai.	Structural and Molecular Biotechnology
PP112	From Gene to Green Chemistry: Life Cycle Analysis (LCA)-Driven Strategies for <i>Bacillus subtilis</i> SG2 Laccase Immobilization and	<u>Subhas Giri</u> , Keshab Chandra Mondal*	Vidyasagar University, Midnapore	Structural and Molecular Biotechnology
PP113	<i>In silico</i> evaluation of nuclear receptor- LXR β binding affinity with oxysterols and natural bile salts	<u>Asmita Kumari</u> ¹ , Rajani Sharma ² , Shubha Rani Sharma ¹	¹ Birla Institute of Technology, Ranchi, India; ² Amity University Jharkhand.	Structural and Molecular Biotechnology
PP114	Molecular Docking of Phytohormones with bZIP1 Reveals Regulatory Insights into enhanced Microalgal Lipid Biosynthesis	<u>Balakrishnan Naveena</u> ^{1,2} , Tony Pembroke ^{3,4} , Anand Anbarasu ^{1,2*} , MS Gowri ^{1,2} , P Devika ^{1,2}	^{1,2} Vellore Institute of Technology, Vellore, India; ^{3,4} University of Limerick, Limerick, Ireland;	Structural and Molecular Biotechnology
PP115	Structural Evaluation of Interleukin 4: A Computational Approach for the Cytokine and Its Receptor	<u>Pratima Roy</u> , Siddharth Sharma, Manoj Baranwal	Thapar Institute of Engineering and Technology, Patiala	Structural and Molecular Biotechnology
PP116	Structural characterization of pABA binding pocket of a highly druggable target of <i>Mycobacterium tuberculosis</i>	<u>Ritu Papney</u> , AK Yadav, C Saini, Madhuri, M Kumar	All India Institute of Medical Sciences, New Delhi	Structural and Molecular Biotechnology
PP117	WGS-Driven Identification of Antimicrobial Resistance Genes and CRISPR-Cas12a Based Rapid Detection of Multidrug-Resistant <i>Salmonella</i>	<u>Sneha Kumari Binha</u>	Birla institute of Technology, Ranchi,	Structural and Molecular Biotechnology
PP118	Potential of <i>Vigna mungo</i> Recombinant Bowman-Birk inhibitor (BBI) in the management of <i>Achaea Janata</i> (Castor semilooper)	<u>A Spandana</u> ¹ , DD Papareddy ¹ , D Santhosh ¹ , Anurag ¹ , D Gupta ¹ , D Ponnusamy ² , MK Arunasree ³ , K Padmasree ^{1*}	^{1,3} University of Hyderabad, Hyderabad; ² ICAR-Indian Institute of Oilseeds Research, Hyderabad	Food and agricultural biotechnology
PP119	Functional Characterization of the Global Transcriptional Regulator MosR (Rv0348) of <i>Mycobacterium tuberculosis</i>	<u>Dheeraj Singh</u> , Amitava Bandhu	National Institute of Technology Warangal	Structural and Molecular Biotechnology
PP120	The domains of unknown functions in bacteria	<u>Anchita Prasad</u> ¹ , Vinod Kumar Nigam ^{1*} , Prashanth Suravajhala ²	¹ Birla Institute of Technology, Ranchi; ² Manipal University Jaipur,	Structural and Molecular Biotechnology
PP121	SMTRACKR: An R/Bioconductor Package for Single-Molecule Mapping of Protein–DNA Interactions	<u>Aashna Bansal</u> , Himani Barmola, Satyanarayan Rao*	Indian Institute of Technology Roorkee, Roorkee	Structural and Molecular Biotechnology
PP122	Multiscale Computational Framework for Dissecting Plant Silicon Transport Mechanisms	<u>Chirasmitta Bose</u> , Ashutosh Nayak, Satyabrata Nanda	Centurion University of Technology and Management, Bhubaneswar	Structural and Molecular Biotechnology

PP123	Metabolic Fingerprints of Gallstone Formation in NAFLD Revealed by NMR	<u>Jiya Mishra</u> ^{1,2} , Anu Behari ³ , Neeraj Sinha ^{1,2*}	¹ Centre of Biomedical Research, Lucknow, India;	Structural and Molecular Biotechnology
PP124	Evaluation of <i>Mycobacterium tuberculosis</i> Glutamyl-tRNA Reductase (HemA) for survival under stress	<u>Shilpa Kumari</u> ^{1,2} , Princi Sharma ^{1,2} , Anushka Bari ^{1,2} , Vandita Verma ^{1,2} , Sudheer Kumar Singh ^{1,2}	¹ CSIR-Central Drug Research Institute, Lucknow, India; ² Academy of Scientific and Innovative Research (AcSIR), Ghaziabad, India	Structural and Molecular Biotechnology
PP125	Evaluation of succinyl-diaminopimelate desuccinylase (DapE) for its role in survival and persistence of <i>Mycobacterium tuberculosis</i>	<u>Anushka Bari</u> ^{1,2} , Princi Sharma ^{1,2} , Shilpa Kumari ^{1,2} , Vandita Verma ^{1,2} , Sudheer Kumar Singh ^{1,2}	¹ CSIR-Central Drug Research Institute, Lucknow, India; ² Academy of Scientific and Innovative Research, Ghaziabad, India;	Structural and Molecular Biotechnology
PP126	Structural analysis of P1 nuclease enzyme of <i>Leishmania infantum</i> : Implications for design of natural prophylactic molecules for cerebral leishmaniasis	<u>Chhatrola Yashaswini Amrutlal</u> , Abdul Rahmana, Madhan Vishal Rajana, Shamiya Anwar Kizhakkiniyakatha, Amit Kumar Yadava, Tamoghna Ghosha, Pranjal Kabraa, Manoj Kumara, Gururao Hariprasad	Department of Biophysics, All India Institute of Medical Sciences, New Delhi, India	Structural and Molecular Biotechnology
PP127	Investigating the molecular mechanism of carbon capture and utilization in bacterial species	<u>Ashma Haris</u> ¹ , Juhi Kumari ² , Smita Raghuvanshi ¹ , B Vani ² , Prabhat N Jha ²	BITS, Pilani, India; ² BITS, Pilani, India	Structural and Molecular Biotechnology
PP128	Extraction of cellulose from <i>Lantana camara</i> : Statistical Optimization and Structural Characterization	<u>Vinith Kumar K</u> ¹ , Lohit Kumar Srinivas Gujjala ^{2*} , Althuri Avanthi ^{1*}	¹ Indian Institute of Technology Hyderabad, Kandi, Sangareddy, India; ² National Institute of Technology, Rourkela, India	Structural and Molecular Biotechnology
PP129	Unveiling Point Mutation-Driven Distal Site Alterations in <i>Klebsiella pneumoniae</i> AcrB Efflux Pump through Molecular Dynamics and Residue Network Analysis	<u>Annesha Chakraborty</u> , Subbiah Thamotharan	SASTRA Deemed to be University; Thanjavur, India.	Structural and Molecular Biotechnology
PP130	Localized iron compound synthesis using immobilized <i>Acidithiobacillus ferrooxidans</i> around iron surface for toxic selenate removal	<u>Upasana Jhariya</u> , Mei-Fang Chien, Masaki Umetsu, Masanobu Kamitakahara	Graduate School of Environmental Studies, Tohoku University, Japan	Structural and Molecular Biotechnology
PP130A	Optimizing Diatom Growth with Machine Learning: A Data-Driven Approach	<u>Piyush Kumar Mandal</u> , Abhishek Saxena, Archana Tiwari	Diatom Research Laboratory, Amity Institute of Biotechnology, Amity University, Noida, India	Bioremediation and Environmental Biotechnology
PP130B	Mitigating Anthropogenic Impacts: Harnessing Diatoms for Sustainable Bioproducts	<u>Varun Goyal</u> , Rinku Kaushik, Abhishek Saxena, Archana Tiwari	Diatom Research Laboratory, Amity Institute of Biotechnology, Amity University, Noida, India	Bioremediation and Environmental Biotechnology

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PP131	Synthesis and characterization of Fe ₃ O ₄ /chitosan composite hydrogel for the removal of lead: kinetic and isotherm studies	<u>Km Diksha</u> , Anjireddy Bhavanam, D Giribabu	Dr. B.R. Ambedkar National Institute of Technology, Jalandhar	Bioprocessing and Biomanufacturing Technology
PP132	One-pot synthesis of vanillin from guaiacol using zeolites: Conversion of bio-oil into value-added chemicals	<u>Valiveti Tarun Kumar</u> ^{1,2} , Bhavya B. Krishna ^{1,2} , Thallada Bhaskar ^{1,2,3*}	¹ CSIR-Indian Institute of Petroleum, Dehradun; ² Academy of Scientific and Innovative Research, Ghaziabad; ³ CSIR-Advanced Materials and Processes Research Institute, Bhopal	Bioprocessing and Biomanufacturing Technology
PP133	Synergistic Mechanisms of Ultrasonication and Ascorbic Acid Pretreatment for Enhanced Methane Production from Waste Activated Sludge	<u>Akshaya K</u> , Rangabhashiyam Selvasembian	SRM University-AP, Amaravati	Bioprocessing and Biomanufacturing Technology
PP134	Unraveling the production of Polyhydroxyalkanoate (PHA) from <i>Bacillus subtilis</i> LO1 utilizing groundnut oil	Richa Prasad Mahato ^{1,2} · Padma Singh ¹	¹ Kangri University, Haridwar, India; ² PD Patel Institute of Applied Sciences, Charotar University of Science and Technology, Changa, Anand, India;	Bioprocessing and Biomanufacturing Technology
PP135	Optimizing Cellulolytic Enzyme Cocktails for Efficient Conversion of Industrially Relevant Lignocellulosic Biomass Using Simplex-Lattice Mixture Design	<u>Yashika Raheja</u> ^a , Varinder Singh ^b , Vivek Kumar Gaur ^c , Adrian Tsang ^d , Bhupinder Singh Chadha ^a	^a Guru Gobind Singh Indraprastha University, Amritsar, India; ^b National Agri-Food Biotechnology Institute, Mohali, India; ^c Amity University Lucknow, India; ^d Concordia University, Montreal, Quebec, Canada.	Bioprocessing and Biomanufacturing Technology
PP136	To Develop Patch with Secondary Metabolite for Diabetic Burn Wound	<u>Shruti De</u> , Maulishree, Ashutosh, Purna Tandon, Jeenat Yadav, Anuradha Kalani	Chhatrapati Shahu Ji Maharaj University, Kanpur, India	Bioprocessing and Biomanufacturing Technology
PP137	Optimization of medium for pneumocandin B ₀ production from <i>Glarea lozoyensis</i> ATCC 20868 using RSM-CCD approach	<u>Anshu Baldia</u> , Kashyap Kumar Dubey	<u>Jawaharlal Nehru University, New Delhi, India: Presenting author Email anshubaldia@gmail.com</u>	Bioprocessing and Biomanufacturing Technology
PP138	A Novel Thermostable and Acidophilic Xylanase Production by <i>Parageobacillus thermoglucosidasius</i> : A Bioprocess Approach	<u>Yuvaraj K</u> , <u>Seenivasan Ayothiraman</u>	National Institute of Technology Andhra Pradesh, Tadapalligudem, India	Bioprocessing and Biomanufacturing Technology
PP139	Regulation of Extracellular Polymeric Substance Production in Microalgae by Physical and Chemical Factors	<u>Dikshika Singh</u> , Mari Selvam S, Bunushree Behera	Thapar Institute of Engineering and Technology, Patiala, India.	Bioprocessing and Biomanufacturing Technology
PP140	Phosphoric Acid as a Tri-functional catalyst for the Bioconversion of Seaweed and Microbial cell growth	<u>Anbu Chezhiyan Elango</u> ^a , Mugesh Sankaranarayanan ^{*a} , Tamilarasan Karuppiah ^b	^a Centre for Metabolic Engineering and Synthetic Biology, Department of Biotechnology, ^b Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, Avadi,, India.	Bioprocessing and Biomanufacturing Technology
PP141	Exploring Media-Dependent Carotenoids Production in Indigenous Microalgal Isolates <i>Chlorella sorokiniana VM3</i> and <i>Scenedesmus sp. VM</i>	<u>Vandana</u> , Ramasare Prasad	Indian Institute of Technology Roorkee, Roorkee, India.	Bioprocessing and Biomanufacturing Technology
PP142	Lab adaptive mercury tolerant <i>Chlorella strain</i> as a potential resource for bioenergy and bioproduct generation	<u>Prachi Bhatnagar</u> ¹ , Sonia Choudhary ^{1,2} Krishna Mohan Poluri ^{1,2*}	Indian Institute of Technology Roorkee	Bioprocessing and Biomanufacturing Technology
PP143	Extraction and Functional Evaluation of Tailored Proteins from Cyanobacteria for Sustainable Bioprocessing	<u>Neha Goel</u> ¹ , Madhu Yadav ² , Ariz Hussain ³ , Rohinish Grover ³ , Pushpendra Pal ³ , Poonam Choudhary [*]	Indian Institute of Technology, India.	Bioprocessing and Biomanufacturing Technology
PP144	Preparation and characterization of Casein amyloid-based hydrogel crosslinked by tannic acid coated gold nanoparticles	<u>Tiyasa Malik</u>	National Institute of Technology, Rourkela	Bioprocessing and Biomanufacturing Technology
PP145	Bioionic Liquid-Assisted Transparent Sodium Alginate-κ-Carrageenan-Lignin Composite Films with Excellent Ultraviolet Shielding, Antioxidant, and Antibacterial Properties	<u>Gohil Mrunaliniba Yuvrajsinh</u> , ^{a,b} Arvind Kumar, ^{a,b*}	¹ CSIR-Central Salt, and Marine Chemicals Research Institute, Bhavnagar;	Bioprocessing and Biomanufacturing Technology

PP146	Biomethane Potential of <i>Verbesina encelioides</i> : Integrating Invasive Weed Management with Renewable Energy Generation	Aritra Bhattacharya ¹ , Lopa Pattanaik ²	¹ NIIT University, Neemrana;	Bioprocessing and Biomanufacturing Technology
PP147	Halophilic Bacteria from Sambhar Lake as Novel Producers of Polyhydroxybutyrate: A Sustainable Route to Bioplastics	Sakshi Singh, Nadana Raja Vadivu Ganapathy*	Manipal University Jaipur	Bioprocessing and Biomanufacturing Technology
PP148	Harnessing processed organic nutrient sources as sustainable alternatives for microalgal biomass valorization	Nishkarsh Guglani, Rinku, Abhishek Saxena, and Archana Tiwari*	Amity University, Noida	Bioprocessing and Biomanufacturing Technology
PP149	Microbial Production of Amylase Production from Agro – waste using <i>Citrobacter amalonaticus</i>	Pawani Sharma, Ishika Rawat	Mohanlal Sukhadia University, Udaipur	Bioremediation and Environmental Biotechnology
PP150	Carbonic anhydrase-mediated calcite formation by mangrove-associated bacterial isolates	Sonali Mazumder ¹ , Nisha minimol ^{1,2} , Athar Hussain Ansari ¹ , Cathrine Sumathi Manohar ^{1,2,*}	¹ CSIR- National Institute of Oceanography, Dona Paula, Goa; ² Academy of Scientific and Innovative Research, Ghaziabad.	Bioremediation and Environmental Biotechnology
PP151	Deciphering Synthetic Dye Degradation by Microbes: A Computational Approach	Pallabi Bhar, Soham Chattopadhyay	Birla Institute of Technology, Ranchi	Bioremediation and Environmental Biotechnology
PP152	Bioremediation Using Bacterial Isolates: Statistical Optimization for Enhanced Defluoridation Efficiency	Dhwani Upadhyay ¹ , Prasad Andhare ² , Avani Bhojak ¹ , Mahendra Pal ³	¹ Parul University, Vadodara, India; ² GSFC University, Vadodara, India; ³ Narayan Consultancy of Veterinary Public Health and Microbiology, Bharuch	Bioremediation and Environmental Biotechnology
PP153	Phenotypic multicellularity and halotolerance in a catalase-negative <i>Staphylococcus aureus</i> with biotechnological potential	S Ahil Rishi Rajasekaran, N Dhayasugantharji	The American College, Madurai, India	Bioremediation and Environmental Biotechnology
PP154	Microbial Electrolysis Driven Bioremediation of Antibiotic-Contaminated Hospital Wastewater: Integrating Tetracycline Degradation with Resource Recovery	Sunil Sahu	National Institute of Technology, Raipur, India	Bioremediation and Environmental Biotechnology
PP155	Establishment of a UASB Reactor and Screening of Indigenous Bacteria for Dye Biodegradation in Industrial Wastewater	Prerna Tiwari, Shweta Agrawal	Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore, India	Bioremediation and Environmental Biotechnology
PP156	Essential Oil derived Iron Nanoparticles: A sustainable approach for Hexavalent Chromium (Cr VI) Remediation	Sakshi Vashistha, Ekta Bhatt, Pammi Gauba	Jaypee Institute of Information Technology, Noida, India.	Bioremediation and Environmental Biotechnology
PP157	Exploring Halophilic Bacterial Metabolites to Counteract Protein Aggregation And Aberrant Phase Separation	Arkadyuti Roy Chakraborty, Gurunathan Jayaraman*	VIT University, Vellore, India	Bioremediation and Environmental Biotechnology
PP158	Hyperaccumulator Plant Derived Iron Nanoparticles: A Sustainable Way for Hexavalent Chromium [Cr (VI)] Remediation	Aditi Raj, Pammi Gauba, Ekta Bhatt	Jaypee Institute of Information Technology, Sector 62, Noida, 201309, India	Bioremediation and Environmental Biotechnology
PP159	AI-Driven Prediction and Biodegradation Approaches for Effective Pharmaceutical Effluent Treatment	Gaurav Verma ^a , Vinay Dwivedi ^b , Manish Singh Rajput ^{a*}	^a Dr. Ambedkar Institute of Technology for Divyangjan, Awadhपुरi Kanpur, India; ^b Amity University, Gwalior, India.	Bioremediation and Environmental Biotechnology
PP160	Jeevamrut-Stimulated Microbial Degradation of Phenol in Bhadar River by Sustainable Restoration approach	Manojkumar Godhaniya, Rajesh Patel	Veer Narmad South Gujarat University, Surat, India.	Bioremediation and Environmental Biotechnology
PP161	Removal of metals from battery wastewater using biofloculant produced by a lead-resistant bacterium	Shatrupa Singh ¹ , Deenan Santhiya ² , Jai Gopal Sharma ¹	¹ Delhi Technological University, Delhi, India; ² Technological University, Delhi, India.	Bioremediation and Environmental Biotechnology
PP162	Assessing PVC-NPs Toxicity in <i>Scenedesmus</i> sp. IITRIND2: Implications for Sustainable Biorefinery Applications	Mansi Tiwari ¹ , Sonia Choudhary ^{1,2} , Krishna Mohan Poluri ^{1,2,*}	¹ Department of Biosciences and Bioengineering, ² Center for Transportation System, Indian Institute of Technology Roorkee, India	Bioremediation and Environmental Biotechnology
PP163	Exploration of Saline Desert-Derived PGP Bacteria for Stress-Resilient Plant Growth	Goonja Nirmal, Meenu Saraf	Gujarat University, India.	Bioremediation and Environmental Biotechnology
PP164	Green Bioelectrochemical Strategy: Nanoparticles Mediated Microbial Fuel Cells Operation for Wastewater Treatment and Power Generation	Oduwayo Deborah Akinwumi, Linga Banoth, S Venkata Mohan*	CSIR- Indian Institute of Chemical Technology, Hyderabad, India	Bioremediation and Environmental Biotechnology
PP165	Functional Cellulose-Activated Carbon hydrogel for efficient antibiotic removal from simulated wastewater	Sfoorti Thapliyal, Chandi Charan Patra	Dr BR Ambedkar National Institute of Technology, Jalandhar, India.	Bioremediation and Environmental Biotechnology

PP166	Efficiency of Sewage Treatment Plants in Managing Pollutants, Emerging Contaminants, and Antimicrobial Resistance in Dehradun, Uttarakhand, India	<u>Alaa Eddin Alhmeidi Alkhatib</u> ¹ , Niteesh Kumar Pandey ¹ , Himanshu Joshi ² , Saugata Hazra ^{1,3}	Indian Institute of Technology-Roorkee, India.	Bioremediation and Environmental Biotechnology
PP167	Structure-function relationship of the Human intracellular two-pore domain ion channel (HsTPC2)	<u>Sunil Gadhwal</u> and Tapan K Nayak	KSBS, IIT Delhi	Structural and Molecular Biotechnology
PP168	From Resistance to Resilience: Exploring Heavy Metal and Antimicrobial-Resistant Microbes of the Yamuna River towards Bioremediation	<u>Ananya Pathak</u> ¹ , Alaa Eddin Alhmeidi Alkhatib ¹ , Saugata Hazra ^{1,2}	Indian Institute of Technology Roorkee	Bioremediation and Environmental Biotechnology
PP169	From Environment to Evidence: Towards Next-Generation Diagnostics for Tracking Total Microbial Burden in Environmental Systems	<u>Debjani Das</u> ^{1,3} , Riya Panda ¹ , Alaa Eddin Alhmeidi Alkhatib ¹ , Debarati Chattopadhyay ³ , Saugata Hazra ^{1,2}	Indian Institute of Technology-Roorkee	Bioremediation and Environmental Biotechnology
PP170	Structural Characterization of Inhibitors Targeting the RNA-Binding Surface of the SARS-CoV-2 Nucleocapsid Protein	<u>Preeti Dhaka</u>	Indian Institute of Technology Roorkee	Structural and Molecular Biotechnology
PP171	Biodegradable active nanocomposite-film for modified atmospheric packing	Neeraj Moun, ¹ Sarita Kataria, ¹ Abhijith TS, ¹ Mahima Chandel, ¹ Senthilraja K ² Bandana Kumari Sahu, ¹ Kamaljit Kaur, ¹ Vijaya Kumar Shanmugam ^{1*}	¹ Chemical Biology Unit, Institute of Nano Science and Technology, Sahibzada Ajit Singh Nagar;	Bioremediation and Environmental Biotechnology
PP172	Synergistic antibiotic removal via bacteria-immobilized powdered carbon: integrating adsorption and biodegradation for sustainable water treatment	<u>Supraja Chandra</u> , Chandi Charan Patra	Dr BR Ambedkar National Institute of Technology, Jalandhar	Bioremediation and Environmental Biotechnology
PP173	Fluorescence-Based Reporter Integration for Expanding Carbon Monoxide Toolbox under Anaerobic Conditions	<u>Ardiwinata Tantri</u> ¹ , Byeongchan Kang ^{1,2} , In Seop Chang ^{1,2}	Gwangju Institute of Science and Technology, Gwangju, Republic of Korea	Bioremediation and Environmental Biotechnology
PP174	Evaluation of microbial response to amines used in post-combustion carbon capture	<u>Roopmalya Basu</u> ¹ , Pinaki Sar ¹ , Aditya Kumar Patra ²	Indian Institute of Technology Kharagpur	Bioremediation and Environmental Biotechnology
PP175	Engineering Sustainable Bio-Packaging Materials: Development and Physicochemical Characterization of Corn Starch Blended Bioplastic Films	<u>Piyush Kumar Kesharwani</u> ¹ , Kumud Kamini ¹ , Kaushik Das ¹ , Sneha Verma ¹ , Ganapati Mukri ² , Soham Ray ¹ , Sapna Langyan ³ , Pranjal Yadava ¹	¹ ICAR- Indian Agricultural Research Institute, New Delhi;	Bioremediation and Environmental Biotechnology
PP176	Sustainable Bioproduction of Terpenoids using Engineered <i>Synechococcus elongatus</i> UTEX 2973 : Integrating approach for optimised cultivation with Innovative Product Recovery	<u>Preeti Yadav</u> , Kishan Jilka, Sanjay Kumar	IIT (BHU) Varanasi	Bioremediation and Environmental Biotechnology
PP177	Enhanced Resource Recovery from Sewage Sludge via Conductive Material-Assisted Aerobic Digestion	<u>S Karthik Shankar</u> , Ravi Kumar Yadav, Sunil A Patil	Indian Institute of Science Education and Research Mohali	Bioremediation and Environmental Biotechnology
PP178	Microbial Dark Matter to Cultivated Strain: Isolation and Characterization of Novel Anaerobic Thermophilic Bacteria from 3000 m Depth of the Deccan Traps, India	<u>Sumit Rez</u> , Rajendra Prasad Sahu, Pinaki Sar	Indian Institute of Technology Kharagpur	Bioremediation and Environmental Biotechnology
PP179	Investigation of bioremediation of petroleum hydrocarbon-contaminated soil in the Green Soil facility in Israel	<u>Swati Gupta</u> ^a , Shlomit Medina ^b , Shiri Freilich ^b , Zeev Ronen ^a	¹ The Zuckerberg Institute for Water Research, The Jacob Blaustein Institutes for Desert Research, Ben-Gurion University of the Negev, Sde Boker Campus, Israel;	Bioremediation and Environmental Biotechnology
PP180	Sustainable Approaches for Dairy Wastewater Treatment and Resource Recovery	<u>Anshal Kumar</u> , Susant Kumar Padhi [*]	Shiv Nadar Institution of Eminence, Delhi-NCR	Bioremediation and Environmental Biotechnology
PP181	Fabrication and characterization of nanofiber for wound healing for diabetic condition	<u>Ashirbani Singh</u> , Shazma Sarwat, Koel Mukherjee	Birla Institute of Technology, Ranchi	Drug Development and Medical Biotechnology

PP182	Understanding Rationally Designed Tandem Peptides Against AMR in Indian Priority Pathogens	<u>Suraj Pratap Singh</u> ¹ , Gurpal Singh ² , Ravi Pratap Barnwal ¹	¹ Panjab University, Chandigarh, India; ² UIPS, Panjab University, Chandigarh, India.	Drug Development and Medical Biotechnology
PP183	Green Synthesis of Tungsten Oxide Nanoparticles and their Antimicrobial Activity	<u>Shweta Agrawal</u>	Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore, India	Drug Development and Medical Biotechnology
PP184	From Plant to Protein Targets: Exploring Anti-Arthritic Potential of <i>Tinospora cordifolia</i> through In Vitro and In Silico Approaches	<u>Janbhi Malik</u> , Sumer Singh Meena	Dr. B. R. Ambedkar National Institute of Technology Jalandhar, India	Drug Development and Medical Biotechnology
PP185	A Multi-Stage Drug Repurposing Workflow Integrating Generative AI and Predictive Toxicology to Combat <i>Klebsiella pneumoniae</i>	<u>Argajit Sarkar</u> , Surajit Bhattacharjee	Tripura University, Agartala, India;	Drug Development and Medical Biotechnology
PP186	Investigating Diabetes-Associated Fibromyalgia and Therapeutic Potential of Medicinal Plant Exosome-Infused Hydrogel Patch	<u>Prerna Tandon</u> , Maulishree, Ashutosh, Shruti De, Jeenat Yadav, Anuradha Kalani	Chhatrapati Shahu Ji Maharaj University, Kanpur, India.	Drug Development and Medical Biotechnology
PP187	Valorization of jackfruit waste to extract bioactive peptides and studying its antioxidant and anti-inflammatory activities	<u>Tejal Akshay Parab</u> , Shruti Kakodkar	Somaiya Vidyavihar University, Mumbai, India.	Drug Development and Medical Biotechnology
PP188	Design of antiproliferative noscapine urea congeners as potent tubulin-binding anticancer agents: chemical synthesis and cellular evaluation based on <i>in vitro</i> breast cancer cells, a spheroid model and <i>in vivo</i> xenograft animal model	<u>Pratyush Pragyandipta</u> , Pradeep K. Naik*	Sambalpur University, Sambalpur, India.	Drug Development and Medical Biotechnology
PP189	Hepatoprotective Effect of <i>Boerhavia Diffusa</i> on Nonalcoholic Fatty Liver Disease Based on Network Pharmacology; An Experimental Validation	<u>Pragnya Paramita Mahapatra</u> , Satya Narayan Sahu	Centurion University of Technology and Management, Bhubaneswar, India.	Drug Development and Medical Biotechnology
PP190	Nano- delivery of Potent 9-[(Perfluorophenyl) methylenamino] noscapine (PMN) as a Tubulin-Binding Anticancer Agent: Chemical Synthesis and Cytotoxicity Evaluation Using Breast Cancer Cell Lines and a Spheroid Culture Model	<u>Eeshara Naik</u> , Pradeep K Naik	Sambalpur University, Sambalpur, India	Drug Development and Medical Biotechnology
PP191	A Machine Learning-Assisted QSAR and Integrative Computational combined with Network pharmacology approach for Rational Identification of Tankyrase Inhibitors in Colon Adenocarcinoma	<u>Divya Sharma</u> , Sivakumar Arumugam*	Vellore Institute of Technology, Vellore, Tamil Nadu, India.	Drug Development and Medical Biotechnology
PP192	Exosome Therapy for Neuropsychotic Symptoms in Diabetic Rats	<u>Jeenat Yadav</u> , Maulishree, Ashutosh, Prerna Tandon, Shruti De, Anuradha Kalani	Chhatrapati Shahu Ji Maharaj University, Kanpur, India	Drug Development and Medical Biotechnology
PP193	Advancing Anaerobic Digestion Efficiency via Pretreatment-Assisted Co-Digestion Approaches	<u>Arpit Vishnoi</u> , Lalit Kumar Singh, Shravan Kumar*	Harcourt Butler Technical University, Kanpur, India	Drug Development and Medical Biotechnology
PP194	Targeting Mucoricin with Theaflavin derivative: An Integrated <i>In Silico</i> and Biophysical Approach against Mucormycosis	<u>Manish Kumar</u> , Mansi Tanwar, Anamika Singh, Tej Pal Singh, Sujata Sharma, Pradeep Sharma	All India Institute of Medical Sciences, New Delhi, India.	Drug Development and Medical Biotechnology
PP195	Exploring the Role of Stress and Vaginal Microbiome in Female Infertility: Insights from Women in Jammu & Kashmir	<u>Kritika Sharma</u> , Indu Bhushan*	<i>Shri Mata Vaishno Devi University, Katra, Jammu & Kashmir, India.</i>	Drug Development and Medical Biotechnology
PP196	Glucose Metabolism Regulates Macrophage Activation via Integrin–GLUT Crosstalk During Inflammation	<u>Shubham Kumar Rai</u> , Garima Singh, Pranita P. Sarangi	Indian Institute of Technology Roorkee, India.	Drug Development and Medical Biotechnology
PP197	Unravelling the Significance of Class A Serine β -Lactamase PSE-4 in the Global Fight Against Antibacterial Resistance (ABR)	<u>Anshika Gupta</u> ¹ , Madhurima Sarkar ¹ , Anish Pyne ¹ , Saugata Hazra ^{1,2}	Indian Institute of Technology-Roorkee, Roorkee, Uttarakhand, India.	Drug Development and Medical Biotechnology
PP198	Investigation of the Anticancer Property of Melittin and its Effect on Breast Cancer Progression	<u>Rama N Behera</u> , Kiran Ambatipudi	Indian Institute of Technology Roorkee, India.	Drug Development and Medical Biotechnology
PP199	Indigenous Biopolymer-driven Nanofiber Wound Dressing for Synergistic Antimicrobial Drug Delivery in Topical Application	<u>Komal Singh</u> ^{1,2} , Narayan Chandra Mishra ¹ , Saugata Hazra ^{2,3}	Indian Institute of Technology-Roorkee	Drug Development and Medical Biotechnology
PP200	Exploring Natural Sigma-1 Receptor Modulators for Therapeutic Intervention in Neurodegenerative Disorders and Cancer	<u>Sarika Yadav</u> , Maya S Nair	Indian Institute of Technology Roorkee	Drug Development and Medical Biotechnology

PP201	Development of potential chimeric vaccine candidates against RNA viruses	<u>Ankita Saha</u> , Vedita Anand Singh, Tanuj Handa, Shailly Tomar*	Indian Institute of Technology Roorkee	Drug Development and Medical Biotechnology
PP202	Elucidate the role of FOLR1 in the development and progression of inflammatory lung disorders	<u>Sunita Das</u> , Amrita Gond, Ananyo Kumar Ghosh, Anjali E, Bijesh Puthusseri*	CSIR-Indian Institute of Chemical Biology, Kolkata	Drug Development and Medical Biotechnology
PP203	Multiclass EEG-Based Classification of Psychiatric Disorders Using Interpretable Machine Learning on Spectral and Connectivity Features	<u>Ajay Goyal</u> , Aangi Shah	Institute of Design, Nirma University, Ahmedabad	Drug Development and Medical Biotechnology
PP204	Eradication of intracellular multidrug-resistant <i>E. coli</i> in neonatal sepsis through exosome-encapsulated colistin sulfate	<u>Pallabi Chatterjee</u> , Anamika Singh, Utkarsh Jain*	School of Health Sciences and Technology, UPES, Dehradun	Drug Development and Medical Biotechnology
PP205	Automated Cytogenetics: Two stage Deep Learning Pipeline for Gamma Radiation Induced Biomarker classification using YOLOv8 & ResNet18	<u>Rishabh Mohan Sinha</u> ¹ , Namita Indracanti ² , Kumar Indraganti ²	¹ Delhi Technological University;	Drug Development and Medical Biotechnology
PP206	Rhizosphere Microbiome Dynamics of Finger Millet Across Agroclimatic Zones of Jharkhand: Insights into Plant–Microbe Interactions	<u>Vikas Kumar</u> , Binod Kumar Mahto	Ranchi University, Ranchi	Drug Development and Medical Biotechnology
PP207	Exploring Shared Molecular Signatures of Oral and Lung Cancer Driven by Environmental Pollutant Exposure	<u>Surbhi Sharma</u> , Ajay Kumar Singh	Harcourt Butler Technical University, Kanpur	Drug Development and Medical Biotechnology
PP208	Target Identification Through Network Pharmacology and In Silico Design of CCR5 Antagonists Against HIV	<u>Ritwika Nandi</u> , Mansi Sharma, Parul Sharma, Anudeep Kumar Narula	Guru Gobind Singh Indraprastha University, Delhi	Drug Development and Medical Biotechnology
PP209	Novel Nitrogen Mustard Derivatives Enhance Blood–Brain Barrier Permeability and Ameliorate Head Carcinoma via 22GS Protein Modulation	<u>Kamta P. Namdeo</u> , Vivek Singh Baghel, Ashmita Das, Abu Sharim	Guru Ghasidas Vishwavidyalaya, Bilaspur	Drug Development and Medical Biotechnology
PP210	Differential Expression of Proteins in Bladder Cancer; Urine Proteomics Based Approach	<u>Arpita Priyadarshini</u> ^{a,b} , Vedang Murthy ^{a,b} , Gagan Prakash ^{a,b} , Ashok K Varma ^{a,b}	¹ Advanced Centre for Treatment, Research and Education in Cancer, Tata Memorial Centre, Navi Mumbai;	Drug Development and Medical Biotechnology
PP211	Repurposing Efavirenz, the HIV antiretroviral drug for Chikungunya virus infection	Sanketkumar Nehul ¹ , Ruchi Rani ¹ , <u>Priyanshu Walia</u> ¹ , Prasan Kumar Panda ² , Sharad Singh ^{3,4} , Soma Chattopadhyay ³ , Pravindra Kumar ¹ , Shailly Tomar ^{1*}	¹ Indian Institute of Technology Roorkee;	Drug Development and Medical Biotechnology
PP212	Engineering Nanobodies for Neutralization of orthoflavivirus infection	<u>Tanuj Handa</u> , Ankita Saha, Preeti Dhaka, Jitin Singla, Shailly Tomar [#]	Indian Institute of Technology Roorkee	Drug Development and Medical Biotechnology
PP213	Reactive Astroglia drives abnormal neuronal Tau assimilation and propagation in cellular model of Alzheimer’s Disease	<u>Komal Bana</u> , Sachin Suresh Tiwari*	Indian Institute of Technology Roorkee	Drug Development and Medical Biotechnology
PP214	Targeted LOX4 Disruption via CRISPR in <i>Setaria italica</i> : A Platform for Nutritionally Enhanced, Long-Lasting Seeds	<u>Sneha Verma</u> ¹ , Sadia Qamar ¹ , Soham Ray ¹ , Archana Watts ¹ , Shivani Nagar ¹ , Sumer Pal Singh ² , Vishwanathan Chinnusamy ¹ and Pranjali Yadava ^{1*}	¹ Division of Plant Physiology, ² Division of Genetics, ICAR-Indian Agricultural Research Institute, New Delhi, India	Food and agricultural biotechnology
PP215	CRISPR/Cas12a-Based Diagnostics for Early TYLCV Detection: A Translational Approach to Safeguard Agricultural Crops	<u>Snehlata Kujur</u> , Dinesh Prasad	Birla Institute of Technology Mesra, Ranchi, India.	Food and agricultural biotechnology
PP216	Structural, Functional, and Physicochemical Modifications in Starches of Three Minor Millets Induced by Heat–Moisture Treatment: A Comparative Investigation	<u>Vaishali Singh</u> , Ankisha Vijay, Pooja Choudhary	Jaypee Institute of Information Technology, Noida, India	Food and Agricultural Biotechnology
PP217	Evaluation of Siderophore-Producing <i>Bacillus subtilis</i> KS5 from Curd as an Iron-Nutritive Fortifier in Iron-Deficiency-Induced Anemia in Wistar Rats	<u>Sudipta Samanta</u> , Keshab Chandra Mondal	Vidyasagar University, Midnapore, India.	Food and agricultural biotechnology

PP218	AI-Guided Solar Hydroponics: A Compact Biotech Approach to Urban Food experimentation	S Madan, R Praveenkumar	Arunai Engineering College, Tiruvannamalai, India	Food and Agricultural Biotechnology
PP219	Co-Digestion of Secondary Dewatered Sludge and Food Waste for Enhanced Methane Production	Prateek Mishra ¹ , Lalit Kumar Singh ¹ Vivekanand Vivekanand ^{2*}	¹ Harcourt Butler Technical University, Kanpur, India; ² Malviya National Institute of Technology Jaipur, Jaipur, India	Food and Agricultural Biotechnology
PP220	Combatting Abiotic Stress: An Investigation of <i>HvHSFC1b</i> Gene Expression in Barley	Shalu Malik, Suchi Baliyan, Arunima Singh, Sumit Kumar Mishra, Meenakshi kanwar, Harsh Chauhan*	Indian Institute of Technology Roorkee, Roorkee, India	Food and agricultural biotechnology
PP221	Comparative Analysis of Breed and Geographical Effects on Endogenous Bioactive Lipids in Ghee from Badri and Red Sindhi Cow	Amit Pal Panwar ¹ , Pratibha Demiwal ² Debabrata Sircar ² , Kiran Ambatipudi ¹	¹ Proteomics and Lipidomic Group ¹ , Plant Molecular Biology Group ² Department of Biosciences and Bioengineering, Indian Institute of Technology Roorkee, India.	Food and Agricultural Biotechnology
PP222	Deciphering the metabolomic reprogramming dynamics of sheath blight in rice through omics study	Anup Sutradhar ¹ , Arpita Das, Kiran Ambatipudi, Debabrata Sircar*	Indian Institute of Technology, Roorkee, India.	Food and Agricultural Biotechnology
PP223	Smart Buffalo Farming: Tail-Attached Multi-Sensor Device for Estrus Monitoring	Puneet Kumar ¹ , Arpit Omar ² , Pyari Mohan Pradhan ² , Pranita P Sarangi ¹ , Kiran Ambatipudi ¹	¹ Department of Biosciences and Bioengineering, ² Department of Electronics and Communication, Indian Institute of Technology Roorkee, Roorkee, India.	Food and agricultural biotechnology
PP224	CRISPR/Cas9-Driven Provitamin A Biofortification in Rice	Shweta, Ritika Vishnoi, Parul Sirohi, Harsh Chauhan*	Indian Institute of Technology Roorkee	Food and agricultural biotechnology
PP225	Turning Waste into Value: Sustainable Films for Food Preservation	Mohit Kumar Mehra, Althuri Avanthi*	Institute of Technology Hyderabad, Sangareddy	Food and Agricultural Biotechnology
PP226	Enhancing Bioactive Compounds in <i>Moringa oleifera</i> Leaves Powder Using Atmospheric Cold Plasma: A Green Technology Approach for Nutraceutical Supplement Development	Prerana Amolkumar Kulkarni, Fayaj Pathan	MIT ADT University, Pune	Food and agricultural biotechnology
PP227	<i>Termitomyces</i> Mushrooms of Chota Nagpur: Indigenous Superfoods for Sustainable Nutrition	Kaushiki Bhattacharya, Ramesh Chandra*	Birla Institute of Technology, Mesra, Ranchi	Food and Agricultural Biotechnology
PP228	Advancing the Understanding of Nutritional and Functional Attributes in Millet Protein Isolates	Swati Suman, Sheela Chandra	Birla Institute of Technology, Mesra, Ranchi	Food and agricultural biotechnology
PP229	MusaNAC46 transcription factor regulates stress induced leaf senescence of banana plant by modulating autophagy and chlorophyll catabolism	Subham Bhakta ^{1,2} , Himanshu Tak ^{1,2} , Anand Ballal ¹ , Sudhir Singh ^{1,2}	¹ Bhabha Atomic Research Centre, Mumbai;	Food and agricultural biotechnology
PP230	Integrative and Comparative Functional Analysis of Anthocyanin Accumulation in Banana	Nandita Thakur, Rajni Kanwar, Akhil Singh Karchuli, Sanjana Negi	BRIC-National Agri-Food and Biomanufacturing Institute, Main Campus, Sector 81, Sahibzada Ajit Singh Nagar	Food and agricultural biotechnology
PP231	Structural basis of genetic variants discovered in BRCA1 BRCT domain; in-silico and in-vitro approach to evaluate the pathogenicity	Priyanka Namdev ¹ , Ashok K Varma ^{2,3} , N Senthil Kumar ¹	Mizoram University, Aizawl, India; ² Tata Memorial Centre, Advanced Centre for Treatment, Research and Education in Cancer, Navi Mumbai, India; ³ Homi Bhabha National Institute, Mumbai, India.	Structural and Molecular Biotechnology
PP232	Structural Elucidation of the SAM Domain of EphB4 Receptor Tyrosine kinase	Aman Jaiswal ^{1,2} , Ashok K Varma ^{1,2}	Homi Bhabha National Institute, Training School Complex, Mumbai, India; Tata Memorial Centre, Advanced Centre for Treatment, Research, and Education in Cancer, Navi Mumbai, India.	Structural and Molecular Biotechnology
PP233	An Integrated Multiscale Computational and Experimental Investigation Reveals R95G-Induced Structural and Cofactor-Binding Impairments in Valosin-Containing Protein	Amar Jeet Yadav	Laboratory for Computational Biology & Biomolecular Design, School of Biochemical Engineering, Indian Institute of Technology (BHU) Varanasi, Varanasi, India	Structural and Molecular Biotechnology

PP234	Evaluation of antivirals targeting protein-protein interaction interfaces within RdRp complex of SARS-CoV-2	<u>Anushka Upadhyay</u> ¹ , Ruchi Rani ¹ , Sanketkumar Nehul ¹ , Shweta Choudhary ¹ , Ankur Singh ¹ , Gaurav Kumar Sharma ^{2*} , Pravindra Kumar ^{1*} , Shailly Tomar ^{1*}	¹ Indian Institute of Technology Roorkee, India; ² Indian Veterinary Research Institute, Izatnagar, Bareilly, India.	Structural and Molecular Biotechnology
PP235	Synthesis, Characterisation and Protein Binding Interactions of Polyvinyl Chloride Nanoplastic	<u>Emansi Yadav</u> ¹ , Santosh Kumar Panda ² Jasasmita Das ² , and Krishna Mohan Poluri ^{1,2*}	Indian Institute of Technology Roorkee, India	Structural and Molecular Biotechnology
PP236	Elucidating the molecular interactions of chemokine protein with polyvinyl chloride nanoplastic	<u>Santosh Kumar Panda</u> ¹ , Krishna Mohan Poluri ^{1,2*}	Indian Institute of Technology Roorkee, India	Structural and Molecular Biotechnology
PP237	<i>In silico</i> characterization of pyrophosphate-fructose 6-phosphate 1-phosphotransferase reveals dual catalytic role in restoring central carbon metabolism in <i>Candidatus Liberibacter asiaticus</i>	Sandra <u>Kathott Prakash</u> , Ashwani Kumar Sharma, Jitin Singla	Indian Institute of Technology Roorkee, India.	<i>Structural and Molecular Biotechnology</i>
PP238	Generation of stable peptide binders using RFDiffusion as potential anti-aggregating agents for Beta-2 Microglobulin: An in-silico analysis	<u>Debanjan Bhattacharjee</u>	Indian Institute of Technology Roorkee, India	Structural and Molecular Biotechnology
PP239	The Art of Folding: How DNAzymes Shape Themselves into Function	<u>Sainika Tampi</u> ¹ , Riya Panda ¹ , Saugata Hazra ^{1,2}	Indian Institute of Technology-Roorkee, India.	Structural and Molecular Biotechnology
PP240	Deep Learning with SELEX Noise Removal Enables Accurate In Vitro-to-In Vivo TF Binding Prediction	<u>Apoorva Raj</u> ¹ , Aastha Tiwari ¹ , Devesh Bhimsaria ^{*1,2}	¹ Department of Biosciences and Bioengineering, ² Me Family School of data Science and AI, Indian Institute of Technology Roorkee, India.	Structural and Molecular Biotechnology
PP241	How AMH-1 Evolved into a First-in-Class Gram-Positive Metallo-β-Lactamase with Monobactam Hydrolytic Activity	<u>Sayan Poddar</u> ¹ , Rekha Gupta ¹ , Saugata Hazra ^{1,2}	Indian Institute of Technology-Roorkee	Structural and Molecular Biotechnology
PP242	Decoding the Evolutionary Dynamics of Antibiotic Resistance (ABR) in Natural CTX-M β-Lactamases Using a Dual in silico–in vitro Framework	<u>Devika Vaidya</u> ¹ , Tanmoy Sen ¹ , Saugata Hazra ^{1,2}	Indian Institute of Technology-Roorkee	Structural and Molecular Biotechnology
PP243	Deciphering the mechanistic insight of Ceftazidime-Avibactam Resistance in newly emerged <i>Klebsiella pneumoniae</i> carbapenemase Insertion variants: The battle against Antibiotic Resistance	<u>Riya Karan</u> , Saugata Hazra*	Indian Institute of Technology Roorkee	Structural and Molecular Biotechnology
PP244	Structural and Functional characterization of an active site influencing variant (IMP-1-F218Y) in the backdrop of IMP-1 Metallo-β-lactamase	<u>Subhecchha Baidya</u> , Saugata Hazra*	Indian Institute of Technology Roorkee	Structural and Molecular Biotechnology
PP245	Decoding the 270-ABC Loop insertion in KPC β-Lactamase: An Evolutionary Puzzle Underpinning Ceftazidime-Avibactam Resistance (ABR)	Tanmoy Sen ¹ , Sayan Poddar ¹ , Saugata Hazra ^{1,2}	Indian Institute of Technology Roorkee	Structural and Molecular Biotechnology
PP246	Expression Profiling of Heat Shock Factors (HSF) Gene Family in <i>Arabidopsis thaliana</i>	<u>Anchal</u> , Meenakshi Kanwar, Arunima Singh, Harsh Chauhan*	Indian Institute of Technology Roorkee	Structural and Molecular Biotechnology
PP247	Exploring Mitochondrial Network in Pancreatic β Cells Using Soft X-Ray Tomography	<u>Anshu Singh</u> , Jitin Singla	Indian Institute of Technology Roorkee	Structural and Molecular Biotechnology
PP248	Structural Characterization and Inhibition of Farnesol Dehydrogenase from <i>Helicoverpa armigera</i>	<u>Etisha Arun</u> ¹ , Shalja Verma ¹ , Anuj Kumar Jangir ¹ , Rakesh Kumar ² , Joy Das ² , Pravindra Kumar ¹ , Ashwani Kumar Sharma ¹	¹ Indian Institute of Technology Roorkee;	Structural and Molecular Biotechnology

PP249	Unveiling the molecular aspects of <i>Chlorella minutissima</i> sp. under PVC-NP stress	<u>Gautam Venkatrayalu</u> ¹ , Sonia Choudhary ^{1,2} , Krishna Mohan Poluri ^{1,2*}	Indian Institute of Technology Roorkee	Structural and Molecular Biotechnology
PP250	NANO-ENABLED SMART DELIVERY SYSTEM OF PHYTOHORMONES: UNLOCKING A SUSTAINABLE PATHWAY FOR ENHANCED PLANT GROWTH AND STRESS MITIGATION.	<u>Sobhitha Mathew</u>	Department of Biotechnology, Motilal Nehru National Institute of Technology Allahabad Prayagraj, 211004, Uttar Pradesh, India	Food and agricultural biotechnology
PP251	DNAzyme-Empowered Molecular Diagnostics for the Precision Detection of Antibacterial Resistance (ABR) Genes	<u>Riya Panda</u> ¹ , Sainika Tampi ¹ , Saugata Hazra ^{1,2}	Indian Institute of Technology Roorkee	Structural and Molecular Biotechnology
PP252	Molecular Evolutionary Insights into Single-Domain Amidase Family Bacteriophage Endolysins	<u>Babitha P</u> ¹ , Nupur Nagar ¹ , Krishna Mohan Poluri ^{1,2}	Indian Institute of Technology Roorkee	Structural and Molecular Biotechnology
PP253	Crystallization and preliminary X-ray diffraction studies on Cysteine desulfurase SufS from ESKAPE pathogen <i>Acinetobacter baumannii</i>	<u>Liji S S</u> , Immanuel Dhanasingh	Vellore Institute of Technology, Vellore	Structural and Molecular Biotechnology
PP254	Allosteric modulation of CO ₂ reductase activity via solid-binding peptide for augmented graphite-based electrocatalysis	<u>J. Shanthi Sravan</u> ^{1,2} , In Seop Chang ^{1,2}	Gwangju Institute of Science and Technology, Gwangju, Republic of Korea	Structural and Molecular Biotechnology
PP255	NaFASO: A Programmable Oligonucleotide Nanostructure for Targeted lncRNA Knockdown and Viral Suppression in Japanese Encephalitis infection	<u>Chandrika Sharma</u> [*] , Suryansh Sengar [#] , Vivek Sharma [#] , Souradyuti Ghosh [*]	*Centre for Life Sciences, Mahindra University, Hyderabad;	Structural and Molecular Biotechnology
PP256	Exploring Indigenous Soil Bacteria with Dual Pesticide-Degrading and Heavy Metal Resistance Capabilities	<u>Khushhal Rathore</u> , Satyanarayan Rao, Ashwani Kumar Sharma	Indian Institute of Technology Roorkee	Structural and Molecular Biotechnology
PP257	Characterization and structural studies of phospho-N-acetylglucosamine mutase enzyme from <i>Pectinophora gossypiella</i>	<u>Anuj Kumar Jangir</u> ¹ , Kuldeep Jangid ¹ , Etisha Arun ¹ , Joy Das ² , Rakesh Kumar ² , Shailly Tomar ¹ , Pravindra Kumar ¹ , Ashwani Kumar Sharma ¹	¹ Indian Institute of Technology Roorkee;	Structural and Molecular Biotechnology
PP258	Structure-Based Inhibitor Design Targeting Conserved NS5 Methyltransferase RNA- Binding Sites in Flaviviruses	<u>Pratibha Verma</u> , Mandar Bhutkar, Shailly Tomar	Indian Institute of Technology Roorkee	Structural and Molecular Biotechnology
PP259	Multi-model approach to explore folding pattern and Protein-Protein Interactions of BRCA1-A complex	<u>Kamallata Chakraborty</u>	Structural and Molecular Biology laboratory, Advanced Centre for Treatment, Research and Education in Cancer (ACTREC), Tata Memorial Centre, Kharghar, Navi Mumbai, 410210, India	Structural and Molecular Biotechnology
PP260	Structural Alterations and functional implications of Variants of Uncertain Significance (VUS) identified in different domains of BRCA2	<u>Oindrila Sinha</u>	Advanced Centre for Treatment, Research and Education in Cancer (ACTREC), Tata Memorial Centre, Kharghar, Navi Mumbai, 410210, India	Structural and Molecular Biotechnology
PP261	Punica granatum peel-Mediated Selenium Nanohydrogel: A Sustainable Strategy for Combating MDR-Infected Diabetic Wounds	<u>Snigdha Gautam</u> , Sheela Chandra [*]	Birla Institute of Technology, Mesra, Ranchi, India	Drug Development and Medical Biotechnology
PP262	Sustainable Biomanufacturing by Using Engineered Pichia pastoris: A Circular Bioeconomy Approach	<u>Shruti Deo</u> , Ram Jeet, Rajeev Tyagi, Puneet Davar, Bijay Kumar	Tropilite Biosciences Pvt Ltd, Gwalior, India	Structural and Molecular Biotechnology
PP263	Modular Genome-Integrated Yeast Platform for Sustainable Nickel Recovery	<u>Thiti Jittayasotorn</u>	Graduate School of Environment Studies, Tohoku University, Japan	Bioremediation and Environmental Biotechnology
PP264	Nanoengineering of Silver Nanoparticles via Green Synthesis Using <i>Holoptelea integrifolia</i> Leaves and Evaluation of Antibacterial Efficiency	<u>Sama Tariq</u>	Metabolomics and Proteomics Laboratory, Department of Biological Science and Engineering, Maulana Azad National Institute of Technology, Bhopal, 462003, INDIA	Drug Development and Medical Biotechnology
PP265	From Random Mutants to Targeted Edits: Enhancing Riboflavin Biosynthesis in <i>Ashbya gossypii</i>	<u>Philomena Philip</u>	Systems Biology and Metabolic Engineering Lab, Department of Chemical Engineering, IIT Bombay	Structural and Molecular Biotechnology