

BIO3: Biotechnology, Biomanufacturing and Bioeconomy

20th- 22nd March 2025, Thapar Institute of Engineering and Technology, Patiala

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March 20, 2025 (Thursday)

8.00- 9.00	REGISTRATION Venue: Reception Desk, Auditorium
INAUGURAL SESSION Venue: Main Auditorium, TIET	
9.15-9.18	Lighting of the Lamp
9.19-9.23	Saraswati Vandana
9.24- 9.30	Presentation of Bouquets
9.30- 9.326	Welcome Address Prof. M.S. Reddy, Chairperson & HoD, Biotechnology
9.33- 9.35	About the Conference Prof. Sanjai Saxena, Convener
9.35-9.40	About Thapar Institute Prof. Ajay Batish, Deputy Director & CAO
9.40-9.45	Research Profile of TIET Prof. N. Tejo Prakash, Dean (Research Development Cell)
9:45-9.55	Address by Prof. Padmakumar Nair Director, Thapar Institute of Engineering and Technology
9.56-9.59	Release of Abstract book
10.00- 10.35	Inaugural Address by Guest of Honor – Prof. Ashwani Pareek Executive Director- BRIC-NABI
10.35- 10.38	Vote of Thanks Dr Siddharth Sharma/ Dr. B. Behera Joint Organizing Secretary
10.40-10.55	High Tea, G-Block Lawns
DAY 01: 20th March 25	THEMATIC AREA: BIOTECHNOLOGY Venue: LT 103
TRACK: AGRI-FOOD	
Chairperson: Professor Moushumi Ghosh Rapporteur: Prof. Niranjn Das	
Keynote Address	
11.00-11.30	Revolutionizing Agriculture through Biotechnology: Sustainable Solutions, and Future Horizons!! Deepak Pareek, Agriculture Economist Founder, HnyB Tech-Incubations Pvt. Ltd
11.30-11.55	Nutrition beyond calories: emerging trends in science Dr. Navin Sharma, Translation Scientist, CGIAR Ex-ITC
Invited Address	
12.00-12.25	Systems-Level Insights into Iron Deficiency Response in Hexaploid Wheat and Genome Complexity Dr. Ajay Kumar Pandey Scientist F, BRIC- NABI
Oral Presentations-A: 12.25-13.25 hrs.	
Session Chair: Prof. R.N. Kharwar Moderator: Dr. Vikas Handa	
13.25-13.30	Summarizing of the Session by the Rapporteur.
13.30-14.15	Lunch
TRACK: PHARMACOGENOMICS	
Chairperson: Professor Niranjn Das Rapporteur: Dr. Vikas Handa	
Keynote Address	
14.15-14.50	Pharmacogenomics in Oncology and Beyond

	<i>Dr. Bani Jolly, Senior Scientist (Genome informatics) Karkinos Healthcare</i>
14:50-15:25	The Genomic Revolution: Reshaping Medicine with AI, Omics, and Personalized Therapeutics <i>Prof. Jasvinder Singh Bhatti School of Health Sciences, Central University of Bathinda (Punjab)</i>
15:25-15:30	Tea Break
Poster Presentations -I 15.30-16.15	
TRACK: BIODIVERSITY & BIOPROSPECTING	
Chairperson: Professor M.S. Reddy Rapporteur: Dr. Anil Kumar	
Keynote Address	
16:15-16:50	Exploiting gut commensals to control diarrheal pathogens: lessons from translational microbiome <i>Dr. Saumya Ray Chaudhary, Chief Scientist CSIR- Institute of Microbial Technology (IMTECH), Chandigarh</i>
Invited Address	
16.55-17.20	Auditing of plant associated invisible mycoflora that contribute to fungal diversity, bioactive compounds and crop health promotion <i>Prof. R.N. Kharwar Department of Botany, Institute of Science, Banaras Hindu University, Varanasi</i>
17.20-17.45	Agaric diversity in north-west India: Applied aspects <i>Prof. Munruchi Kaur Department of Botany, Punjabi University, Patiala</i>
17.45-18.10	The PGPR Breakthrough: Unlocking Heritable Priming for a Sustainable Future <i>Dr. Prashant Singh Department of Botany, Institute of Science, Banaras Hindu University, Varanasi.</i>
Oral Presentations-B: 18.15- 19.20 hrs.	
Session Chair: Dr. Dinesh Goyal Moderator: Dr. Atul Upadhyay	
19.45-21.00	Dinner
DAY 02: 21 st March 25	THEMATIC AREA: BIOMANUFACTURING Venue: LT 103
TRACK: DRUG DISCOVERY & SYNTHETIC BIOLOGY	
Chairperson: Professor Manmohan Chhibber Rapporteur: Dr. M. Vasundhara	
Keynote Address	
9.00-9.35	Next Gen Sequencing Driven Discovery of Penta-O-Galloyl-β-D-Glucose (PGG) as the Novel PLK1 Inhibitor with Validated Anti-Lung Cancer Contours <i>Dr. Anurag Varshney VP & Head, Drug Discovery & Development Patanjali Research Foundation</i>
9.40-10.15	Resurrecting Dark Genome towards designing novel functional molecules <i>Dr. Pawan Dhar Executive Director, CVJ Centre for Synthetic Biology and Biomanufacturing, Kochi</i>
Invited Address	
10:15-10:40	Microbial Biomanufacturing: A Hot Market for Startups and Entrepreneurs <i>Dr. Prince Sharma Professor & Former Dean (Science), Department of Microbiology, Panjab University, Chandigarh</i>
10.40- 11.05	Molecular mechanism of skin allergy induced by isoeugenol and its photoproduct under ambient UV-A exposure <i>Dr. Ashish Dwivedi Scientist, Photobiology Division, CSIR- Indian Institute of Toxicology Research, Lucknow</i>
11.05-11.30	Development and application of bacteriophage cocktails for Non-typhoidal <i>Salmonella</i> in food products <i>Dr. Somesh Baranwal, Associate Professor Central University of Punjab, Bhatinda</i>
11.30-11.35	<i>Tea break</i>

TRACK: VACCINES & STEM CELL THERAPEUTICS	
Chairperson: Professor Manoj Baranwal Rapporteur: Dr. Priyanka Dey	
Invited Address	
11.40-12.10	Discovery of vaccine antigens against multi-drug-resistant bacterial pathogens using reverse vaccinology and AI-ML approach <i>Dr. Ravi Pratap Narayan Mishra Senior Principal Scientist, CSIR- Institute of Microbial Technology, Chandigarh</i>
12.10-12.40	Immunogenic Peptides: A New Frontier in Personalized Cancer Vaccines <i>Dr. Diptiman Choudhury Associate Professor, Thapar Institute of Engineering & Technology, Patiala</i>
Poster Presentations– II: 12.45-13.45	
13.45-14.15	Lunch
TRACK: BIOMATERIALS, HEALTH CARE & DIAGNOSTICS	
Chairperson: Dr. Priyanka Dey Moderator: Dr. Bunushree Behera	
Keynote Address	
14.15-14.50	Self-Reliant India- Blood Plasma Products: Challenges and Opportunities <i>Dr. Ranjeet Ajmani, Chief Executive Officer-Asia Aegros Pvt Ltd</i>
14.50-15.25	Molecular Immunodiagnostics: A Game Changer in Psoriasis Management <i>Prof. Anil K. Sharma, Amity University, Mohali, Punjab</i>
15.25-16.00	Facile Methods of Fabricating Microdevices and Their Applications <i>Dr. Amit Asthana, Department of Medical Devices NIPER- Hyderabad</i>
Invited Address	
16.00-16.25	Development of a new malaria diagnostic kit with no false positives and enhanced sensitivity <i>Dr. Tarun Kumar Bhatt Biotechnology Department Central University of Rajasthan, Ajmer, India</i>
16.25-16.50	Newer Approaches in Precision Medicine Diagnostics. <i>Dr. Charu Bahl, Senior Manager-Scientific Affairs MedGenome Labs Ltd., Bengaluru</i>
16.50-16.55	Tea Break
Oral Presentations – C: 16.50- 19.15	
Session Chair: Prof. M. K. Maiti Moderator: Dr. Debajyoti Dutta	
20.00-21.30	Conference Dinner
DAY 03: 22nd March 25	THEMATIC AREA: BIOECONOMY Venue: LT 103
TRACK: INNOVATIONS, TECHNOLOGIES & ENTREPRENEURSHIP	
Chairperson: Professor Lakhwinder Singh, TSLAS Rapporteur: Dr. Priyanka Dey	
Keynote Address	
9.10-9.45	Innovation Ecosystem in India: Catalyzing Bioeconomy <i>Dr. Shirshendu Mukherjee, MD Wadhwani Foundation, New Delhi</i>
9.45-10.20	Strengthening Technology Business Incubators: Enabling Biomanufacturing <i>Dr. Mrityunjay Suar, Director General R&D and Innovation, KIIT University Chairman, Bhubaneswar City Knowledge Innovation Cluster</i>
10.20-10.25	Summarizing of the Session by the Rapporteur
10.25-10.35	Tea break
TRACK: BIOFUELS & BIOENERGY	
Chairperson: Professor Dinesh Goyal Rapporteur: Dr. Ovais S. Qadri	
Keynote Address	
10.35-11.10	How could microalgal biomass be a sustainable resource for biofuel and bioeconomy? <i>Dr. Mrinal Kumar Maiti, Professor Biosciences & Biotechnology, IIT Kharagpur</i>

TRACK: SUSTAINABLE BIOTECHNOLOGIES	
Chairperson: Dr. M. Vasundhara Rapporteur: Dr. Jyotsana Mehta	
Keynote Address	
11.15-11.40	Sustainable Agriculture as the Bio-Economy's Catalyst <i>Shri Kirti Mishra, Co- Founder, Ecociate Consultants Co-Founder, EARTHY n GREEN</i>
11. 40-12.05	Sustainable food packaging: Innovations in Biomanufacturing and Beyond <i>Dr. Shekhar Agnihotri, Faculty, NIFTEM, Kundli, Haryana</i>
12.05- 12.30	Harnessing Transdisciplinary Research for Land Restoration: A Pathway towards a Sustainable Bioeconomy <i>Dr. Sheikh Adil Edrisi, Thapar School of Liberal Arts & Sciences (TSLAS)</i>
Invited Address	
12.30-12.55	Biofilm Matrixome of Plant Growth Promoting Bacteria: An innovative tool for sustainable agriculture <i>Dr. Janmejy K Pandey School of Life Sciences, Central University of Rajasthan, Ajmer</i>
Oral Presentations-D: 12.55-14.05	
Chairperson: Dr. Anil Kumar Moderator: Dr. Ovais S. Qadri	
13.55-14.00	Summarizing of the Session by the Rapporteur
14.00-15.00	Lunch
15.45-16.45	Valedictory function
	Summing up of the conference
15.45-15.55	<i>Prof. Sanjai Saxena, Convenor, BIO3 Thapar Institute</i>
15.55-16.10	Award Announcement and presentation by the Guest of honor (Deputy Director) <i>Prof. M.S. Reddy, Chairperson & Head, Biotechnology Thapar Institute</i>
16.10-16.15	<i>Conference -Group Photograph</i>
16.15-16.20	Vote of Thanks <i>Prof. Siddharth Sharma, Organizing Secretary Thapar Institute</i>
16.20-16.45	Tea & Departure of Guests