

Theme 3: Frontier Science and Emerging Genetic Technologies: Genomics and Gene Editing

Theme Convenor
Prof. K.C. Bansal
Former Director
ICAR-NBPGR
New Delhi

Date: 11 October 2023
Time: 16.30 - 18.30 hrs.
Venue: Nayanar Hall

Technical Session 1 (Theme 3-TS-1) Advances in Genomics and CRISPR-Cas Systems for Crop Improvement Session Coordinator: Dr. Rita Sharma, BITS, Pilani		
Co-Chair I Dr. Trilochan Mohapatra Chairperson, PPVFRA, New Delhi		Co-Chair II Prof. S.K. Datta Former DDG (Crop Sci.), ICAR
Rapporteur I Dr. Anil K. Singh NIPB, New Delhi		Rapporteur II Dr. Ginny Antony Central University of Kerala
Speaker	Topics	Duration
Prof. Rajeev Varshney Murdoch University, Australia	Keynote Lecture Genomics for genome editing	30 min
Dr. Frank White University of Florida, USA	Keynote Lecture Genome Editing and the Remarkable Lives of Plant Pathogenic Bacteria	25 min
Dr. Prabodh Trivedi CIMAP, Lucknow	Invited Lecture Interaction between Small Molecules Plays Bigger Role in Plant Development and Stress Response	20 min
Dr. Debasis Chattopadhyaya NIPGR, New Delhi	Invited Lecture Large Scale Genome Editing for Resource Generation	20 min
Dr. Rahul Mahadev Shelake Gyeongsang National University, Jinju, Korea	Short Lecture Designing CRISPR-based Genome Editing Tools for Microbial and Plant Biology	15 min
Discussion		15 min
Co-Chairs' Remarks		5 min

Date: 11 October 2023
Time: 1.45 - 3.45 hrs.
Venue: Nayanar Hall

Technical Session 2: (Theme 3-TS-2)
Application of CRISPR-Cas Systems for
Crop Improvement and Sustainable Development

Session Coordinator: Dr. Satendra Mangrauthia, ICAR-IIRR, Hyderabad

Co-Chair I
Dr. Ashok K Singh
IARI, New Delhi

Co-Chair II
Dr. Ashwani Pareek
NABI, Mohali

Rapporteur I
Dr. Siddharth Tiwari
NABI, Mohali

Rapporteur II
Dr. Santosh Upadhya
Botany Department, PU, Chandigarh

Speaker	Topics	Duration
Dr. Robert M. Stupar University of Minnesota, St. Paul MN, USA	Keynote Lecture Gene Editing in Soybean: From Potential to Products	30 min
Dr. C. Viswanathan ICAR-IARI, New Delhi	Invited Lecture Genome Editing for Improving Stress Tolerance in Rice	20 min
Dr. R.M. Sundaram ICAR-IIRR, Hyderabad	Invited Lecture Reshaping the Rice Genome to Meet the Emerging Challenges	20 min
Dr. Naveen Bisht NIPGR, New Delhi	Invited Lecture Genome Editing for an Ideal Low-seed, High-leaf Glucosinolate Oilseed Mustard	20 min
Dr. Rupesh Deshmukh Central University of Haryana Mahendergarh	Short Lecture Enhancing Tomato Yield and Quality through a Multi- target Genome Editing Approach	15 min
Discussion		15 min
Co-Chairs' Remarks		5 min

Date: 11 October 2023
Time: 10.45 -12.45 hrs.
Venue: Nayanar Hall

Technical Session 3: (Theme 3-TS-3)

Genome Editing: IPR Policy, Biosafety for Product Development and Socio-economic Considerations

Session Coordinator: Dr. Kutubuddin Molla, ICAR-NRRI, Cuttack

Co-Chair I Dr. Madhura Swaminathan Indian Statistical Institute, Bengaluru		Co-Chair II Dr. DK Yadava ADG (Seed), ICAR, New Delhi	
Rapporteur I Dr. Pranjal Yadav IARI, New Delhi		Rapporteur II Dr. S. Antony Ceasar Rajagiri College of Social Sciences, Kochi	
Speaker	Topics		Duration
Dr. Michael Jones Murdoch University, Perth, Australia	Keynote Lecture An International Perspective on Trade in Gene-edited Crops: Issues and Current Status		30 min
Dr. Ashwani Pareek NABI, Mohali (DBT perspective)	Invited Lecture Capacity Building and Biosafety Assessment for Genome Editing in Plants		20 min
Dr. R. Ramakumar Tata Institute of Social Sciences, Mumbai	Invited Lecture Gene Editing and Public Science: A Socioeconomic Perspective		20 min
Prof. Venkatesan Sundaresan Distinguished Professor Plant Biology and Plant Sciences University of California, Davis, USA	Special Lecture (Recorded) Generating Self-Cloning Hybrid Crops through Synthetic Apomixis		20 min
Dr. K. Lakshmi, Dr. P.T. Prathima and Dr. C. Appunu ICAR-SBI, Coimbatore.	Session Presentation CRISPR/Cas9-mediated lignin modification in Sugarcane towards improved lignocellulosic biofuel production		15 min
Discussion			15 min
Co-Chairs' Remarks			5 min