

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