



ISRFG 2023

Dr Babu Rajendra Prasad International Convention Centre, UAS, Bangalore

Nov 2, 2023: 18:00 -20:00 Registration and Symposium Kit Distribution
Dr Babu Rajendra Prasad International Convention Centre, UAS, Bangalore: Main Lobby

Day 1: November 03, 2023 | Friday

08:00 - 09:30

Registration and Kit distribution: Main Lobby

09:30 - 11:00

Inaugural Session: Room 1: ORYZA

09:30 - 09:40

Welcome Address, MS Sheshshayee,
Convener ISRFG2023, UAS, Bangalore, India

09:40 - 09:45

Lighting of lamp and Inauguration of ISRFG2023

09:45 - 09:55

Address by **SV Suresha,**
Vice Chancellor, University of Agriculture Sciences, Bangalore, India

09:55 - 10:05

Indian efforts on rice genomics and involvement with ISRFG,
Akhilesh K. Tyagi, University of Delhi, India

10:05 - 10:50

Inaugural **Keynote lecture** by **Rod Wing,**
KAUST, Saudi Arabia and University of Arizona, USA
The international Oryza map alignment project: What gap-free genomes can tell about the evolution of the genus Oryza

10:50 - 11:00

Vote of thanks, **Jitender Giri,**
Co-Convener ISRFG2023,
National Institute of Plant Genome Research, New Delhi, India

11:00 - 11:30 - COFFEE / TEA BREAK

MS Swaminathan Plenary Session: Room 1: ORYZA

Chair: LS Shashidhara, India & MS Sheshshayee, India

11:30 - 12:00

Usha Vijayraghavan, Indian Institute of Science, India
Genomic studies of rice floret meristem and organ development transcription factors unravel functional diversification of conserved regulators

12:00 - 12:30

Bin Han, National Center for Gene Research, China
Genomic approach to fully address the genetic basis and mechanism of heterosis in rice

12:30 - 13:00

Akhilesh K. Tyagi, University of Delhi, India
Analysis of rice gene function during development

13:00 - 13:10 - Group photo

13:10 - 14:00 - LUNCH

14:00 - 17:50	Concurrent Sessions		
	Room 1: AKKI	Room 2: ORYZA	Room 3: BHATTA
	Genomics and epigenomics Chairs: Pao-Yang Chen & Sanjay Kapoor, India	Pan-Genomics: Finding hidden genomic diversity Chairs: Kenneth McNally, Philippines & Saurabh Raghuvanshi, India	Plant development: Vegetative and reproductive: Dabing Zhang memorial session Chairs: Manoj Majee, India & Takeshi Izawa, Japan
14:00 - 14:30	Mathias Lorieux , IRD, France Lead Lecture: New insights on the influence of genomic structural variation on crossover occurrence	Kenneth McNally , IRRI, Philippines Lead Lecture: SNP-Seek and other tools for uncovering rice diversity	Manoj Majee , NIPGR, India Lead Lecture: Rice seed vigor and viability: Role of protein repairing enzymes
14:30 - 14:50	Pao-Yang Chen , Academia Sinica, Taiwan Estimating genome-wide DNA methylation heterogeneity in rice	Andrew Jones , University of Liverpool, UK PanOryza – public access to pan genes and pan proteomes for Asian rice	Imtiyaz Khanday , UC Davis, USA Rice embryogenesis magic: Unlocking clonal seeds for hybrid vigor preservation
14:50 - 15:10	Mukesh Jain , JNU, India Unveiling genomic and epigenomic signatures associated with drought stress response/tolerance in rice	Gopal Misra , KAUST, Saudi Arabia Establishment of reference genomic resources for the wild relative of rice: Towards the neo-domestication of salt-tolerant rice: <i>Oryza coarctata</i> "	Satendra K. Mangrauthia , IIRR, Hyderabad, India Novel allele of OsCKX2 created through CRISPR/Cas12a confers yield superiority, stronger culm and earliness in indica rice cv. Samba Mahsuri
15:10 - 15:30	PV Shivaprasad , NCBS, India A Histone H4 variant predisposes H4 Lysine5 acetylation marks to modulate salt stress	Antonio Costa de Oliveira , Federal University of Pelotas, Brazil Strategies for mutation breeding in Brazilian rice	Discussions

15:30 - 16:00 - COFFEE / TEA BREAK

	Concurrent Sessions		
	Genomics and epigenomics	Metabolomics for nutritious rice Chair: E. Guiderdoni, France & Nelson Saibo, Portugal	Plant development: Vegetative and reproductive
16:00 - 16:30	Sanjay Kapoor , University of Delhi, India Lead Lecture: Understanding role of OsMADS29 in early seed development and manipulating its expression domain to reduce grain chalkiness	Nese Sreenivasulu , IIRI, Philippines Lead Lecture: Metabolomics and machine learning techniques unravel multi-nutritional properties of pigmented rice in germinated sprouts	Toru Fujiwara , University of Tokyo, Japan Lead Lecture: Genetic independency of rice tillers revealed through chemical mutagenesis
16:30 - 16:50	Takeshi Fukao , Fukui Prefectural University, Japan SUB1A coordinates distinct acclimation responses to	Jong-Seong Jeon , Kyung Hee University, Korea Crucial role of PPI-dependent metabolic pathways in rice endosperm	Shri Ram Yadav , IIT Roorkee, India Species-specific functional innovations of conserved regulators during tissue trans-differentiation and branching

	submergence in sink and source leaves of rice		
16:50 - 17:10	Saurabh Raghuvanshi , University of Delhi, India Pivotal role of miRNA genes in orchestrating drought stress response in rice	Nelson Saibo , ITQB NOVA, Portugal Different strategies to improve rice photosynthesis	Pinky Agarwal , NIPGR, New Delhi, India A C2H2 zinc finger transcription factor regulates rice grain traits
17:10 - 17:30	Raja M , Genotypic, India First telomere to telomere Indian rice genome	Apichart Vanavichit , Kasetsart University, Thailand Pyramiding-by-design: Nutrient-dense and climate-resiliency toward organic pigmented rice	Ranjan Swarup , University of Nottingham, UK Mechanistic insight into the role of AXR4 in regulating trafficking of auxin influx transporters AUX1 and LAX2
17:30 - 17:50	Tapan K. Mondal , NIPB, India Functional characterization of salt tolerant genes from <i>Oryza coarctata</i> : an triploid wild species of rice	Haritha Bollinedi , IARI, India Molecular and biochemical characterization of gamma-oryzanol and its components in rice	Aashish Ranjan , NIPGR, India Harnessing natural variation to integrate leaf development and photosynthesis in rice
18:00 - 19:30	Poster Session 1		

19:30 Onwards - DINNER



ISRF 2023

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Day 2: November 04, 2023 | Saturday

08:00 - 09:00	Registrations		
09:00 - 13:00	Plenary Session: Room 2: ORYZA Chairs: Martin Kater, Italy & Julia Bailey-Serres, USA		
09:00 - 09:30	Martin Kater , University of Milan, Italy Characterisation of ALOG genes controlling rice inflorescence development		
09:30 - 10:00	Ramesh V. Sonti , ICGEB, India A complex interplay of multiple Xanthomonas effectors in suppression of rice immune responses		
10:00 - 10:30	Alok K. Sinha , NIPGR, New Delhi, India Probable role of Mitogen-Activated Protein Kinases in the regulation of the cell cycle in rice		
10:30 - 11:00	MS Sheshshayee , UAS, India Improving water productivity of rice for aerobic cultivation: An approach through combining "constitutive" and "acquired" traits		
11:00 - 11:30 - COFFEE / TEA BREAK			
	Plenary Session: Room 2: ORYZA Chairs: Ramesh V. Sonti, India & AK Singh, India		
11:30 - 12:00	A.K. Singh , IARI, New Delhi Molecular breeding for biotic stress tolerance in Basmati rice		
12:00 - 12:30	Tuan-hua David Ho , IPMB, Taiwan Role of intrinsically disordered proteins in conferring abiotic stress tolerance in rice		
12:30 - 13:00	Motoaki Seki , RIKEN Japan Ethanol-mediated novel survival strategy against drought, heat and high-salinity stresses in plants		
13:00 - 14:00 - LUNCH			
14:00 - 17:10	Concurrent Sessions		
	Room 1: AKKI	Room 2: ORYZA	Room 3: BHATTA
	Climate resilience: Plant biotic interactions Chairs: Subhra Chakraborty, India & Apichart Vanavichit, Thailand	Climate resilience: Abiotic stresses Chairs: Motoaki Seki, Japan & Julie Gray, UK	Workshop: Gene-editing Chairs: Viswanathan Chinnusamy, India & Jitender Giri, India
14:00 - 14:30	Siwaret arikit , Kasetsart University, Thailand Lead Lecture: Unveiling essential genes for enhancing rice resistance to BPH amidst climate change challenges	Rahul Bhosale , University of Nottingham, UK Lead Lecture: Adaptive responses of rice roots to high temperature stress	Bing Yang , University of Missouri, USA Lead Lecture: Genome editing enables rice to resist bacterial blight

14:30 - 14:50	Kamal Kumar Malukani , TIGS, India Understanding the molecular intricacies of Rice-Xanthomonas interaction	Pallavi Singh , University of Essex, UK Understanding the dynamic correlation between rice roots, shoots, and water efficiency in order to increase productivity	14:30- 15:00 Emmanuel Guiderdoni , CIRAD, France Bringing apomictic hybrids to the rice fields
14:50 - 15:10	Gokulan CG , CCMB, India QTL-seq and transcriptome analyses provide mechanistic insights into Yellow Stem Borer tolerance in rice	Eswarayya Ramireddy , IISER, Tirupati Genes to Field: Deciphering the genetic basis of traits suitable for direct-seeded rice (DSR)	15:00 - 15:30 Viswanathan Chinnusamy , IARI, New Delhi Genome editing for improving yield and abiotic stress tolerance of rice,
15:10 - 15:30	Anindita Seal , University of Calcutta, India <i>Rhodotorula mucilaginosa</i> JGTA-S1 - a reservoir of endobacteria improves nitrogen nutrition of rice plants.	Annapurna Devi Allu , IISER, Tirupati Using insult to overcome injury: Mechanisms to cope heat stress in rice	
15:30 - 16:00 - COFFEE / TEA BREAK			
16:00 - 16:30	Gopala Krishnan S , IARI, New Delhi Lead Lecture: Mapping QTLs governing resistance to sheath blight of rice	Tiago Filipe Lourenco , ITQB NOVA, Portugal Lead Lecture: An E3-Ubiquitin ligase mediating rice drought response: Insights into brassinosteroids and ABA signaling interactions	Ajay Gupta , University of Missouri, USA Prime genome editing for disease resistance in rice
16:30 - 16:50	AP Padmakumari , IIRR, India Rice gene differentials – a tool for monitoring field virulence in Asian rice gall midge, <i>Orseolia oryzae</i>	Ramu V , RCB, India Ribosomal RNA biogenesis and translation ability regulate drought tolerance of plants	16:30 - 17:10 Discussions
16:50 - 17:10	Asif Bashir Shikari , SKAUST, India Mapping QTLs for resistance to panicle blast in a recombinant inbred line population of temperate Japonica rice (<i>Oryza sativa L.</i>)	B. Mohan Raju , UAS, India Morphological and physiological markers to identify haploids in rice at an early stage	
17:10 - 18:30	Poster Session 2		
18:30 - 19:30	Cultural Program: Room 2: ORYZA		
19:30 Onwards - DINNER			



ISRFG 2023

Dr Babu Rajendra Prasad International Convention Centre, UAS, Bangalore

Day 3: November 05, 2023 | Sunday

09:00 - 13:00

Plenary Session: Room 2: ORYZA Chairs: NK Singh, India & Tuan-hua David Ho, Taiwan

09:00 - 09:30

Blake Meyers, Donald Danforth Plant Science Center, USA
Secondary siRNA pathways as key regulators of male reproductive development in plants

09:30 - 10:00

Julia Bailey-Serres, UC Riverside, USA
Shaping root traits for wet and dry soil

10:00 - 10:30

Matthias Wissuwa, JIRCAS, Japan
A genomic prediction-based approach to identify best donors for abiotic stress tolerance and nutrient-dense rice

10:30 - 11:00

Subhra Chakraborty, NIPGR, India
Commuting to Fight: Organellar crosstalk and post-translational control shaping plant immunity

11:00 - 11:30 - COFFEE / TEA BREAK

Plenary Session: Room 2: ORYZA
Chairs: Blake Meyers, USA & NK Singh, India

11:30 - 12:00

NK Singh, National Institute of Plant Biology, India
Genomics-assisted breeding of climate-resilient rice varieties

12:00 - 12:30

Julie Gray, University of Sheffield, UK
Manipulating stomata to enhance rice stress tolerance

12:30 - 13:00

Takeshi Izawa, The University of Tokyo, Japan
Fertilization controls tiller numbers via transcriptional regulation of a MAX1-like gene in rice cultivation

13:00 - 14:00 - LUNCH

14:00 - 17:30

Concurrent Sessions

Room 1: AKKI

Room 2: ORYZA

Room 3: BHATTA

Translational genomics: Molecular and classical breeding
Chairs: Raman M. Sundaram, India & Mukesh Jain, India

Plant nutrition and sustainable rice production
Chairs: Mathias Wissuwas, Germany & Jitender Giri, India

Workshop on plant phenotyping and GWAS in rice
Chairs: Blanca S. Segundo, Spain & Siwaret Arikrit, Thailand

14:00 - 14:30

Raman M. Sundaram, IIRR, India
Lead Lecture:
Making samba mahsuri climate resilient through molecular breeding

Ki-Hong Jung, KHU, South Korea
Lead Lecture:
Strategy to enhance phosphate use efficiency and grain yield through modulation of RNA decay pathway in rice

Ramegowda HV, UAS, Bengaluru, India
Lead Lecture:
Importance of plant phenotyping for crop improvement: The novel drought simulator phenomics facility

14:30 - 14:50	Subhas Chandra Roy , University of North Bengal, India New model for origin of black rice from wild rice of India: Based on genetic evidence of interspecific hybridization (<i>O. sativa</i> x <i>O. rufipogon</i>) and genome analysis	Jitender Giri , NIPGR, India A citrate efflux transporter important for manganese distribution and phosphate uptake in rice	14:30- 15:00 Swarup K Parida , NIPGR, India Pangenome based GWAS for accelerated crop improvement in rice
14:50 - 15:10	Saurabh Badoni , IRRI, Philippines Unveil novel epistatic targets among major effect loci impacting rice grain chalkiness utilizing genome-wide association-coupled epistatic interaction studies	Thi Mai Huong To , UST, Hanoi, VietNam A novel glycerophosphodiester phosphodiesterase is involved in the phosphate starvation response in rice root	15:00 - 16:00 Field phenotyping facility visit MS Sheshshayee
15:10 - 15:30	Jauhar Ali , IRRI, Philippines Genomics assisted breeding of climate-resilient and nutritious rice varieties	CN Neeraja , IIRR, India Functional genomics of grain zinc content in rice	

15:30 - 16:00 - COFFEE / TEA BREAK

16:00 - 17:40	Young Scientists Session I Room 2: ORYZA I Chairs: Alok Sinha; Bing Yang; Pallavi Singh		
16:00 - 16:10	Ajit Pal Singh , National Agri-Food Biotechnology Institute, Mohali, India <i>Positive aspects of jasmonates signaling for improving agronomic traits</i>		
16:10 - 16:20	Akanksha Bhatnagar , University of Delhi, New Delhi, India <i>HY5 genes in rice: The regulators of light-mediated development</i>		
16:20 - 16:30	Eshan Sharma , University of Liverpool, UK <i>Gene discovery for drought-resilient rice in an era of big data science and analytics</i>		
16:30 - 16:40	Harshita Singh , University Heidelberg, Germany <i>Functional genomics of hormonal regulation of crown root development in rice</i>		
16:40 - 16:50	Hasthi Ram , National Institute of Plant Genome Research, New Delhi, India <i>Developing genome-edited population in Indica rice using CRISPR-Cas9 pool library approach</i>		
16:50 - 17:00	Jyotirmaya Mathan , University of Essex, UK <i>Variation in photosynthesis and photoassimilate partitioning across cultivated and wild rice and the underlying attributes</i>		
17:00 - 17:10	Lokesh Verma , National Institute of Plant Genome Research, New Delhi, India <i>Deciphering the role of membrane lipid remodeling genes in combating phosphate deficiency</i>		
17:10 - 17:20	Nitin Kamble , John Innes Center, UK <i>Protein L-isoaspartyl Methyltransferase (PIMT): A key player for controlling agronomically important seed traits</i>		
17:20 - 17:30	Preethi Vijayaraghavareddy , University of Agricultural Sciences, Bengaluru, India <i>Unravelling the mysteries of nocturnal transpiration: Insights across crop species, seasons, and genotypes</i>		
17:30 - 17:40	Yong Zhou , King Abdullah University of Science and Technology, Saudi Arabia <i>Pan-genome studies of asian rice population reference panel (RPRP, <i>O. Sativa</i>)</i>		
18:00 - 18:30	Panel Discussion I Chair: Trilochan Mohapatra Panelists: Rod Wing; Akhilesh K. Tyagi; Martin Kater; Blake Meyers; Usha Vijayaraghavan		
18:30 - 19:00	Awards Distribution I Room 2: ORYZA		
19:00 - 19:30	Announcement of ISRFG2024 and Concluding Remarks		

19:30 onwards - FAREWELL DINNER