

Special Issue

Integrative Genomics, Molecular Markers, and Breeding Strategies in Rice

Message from the Guest Editors

Rice is a staple crop sustaining more than half of the global population, and its continuous improvement is critical in ensuring global food security. Recent advances in genomics, molecular markers, and multi-omics technologies have greatly expanded our ability to dissect complex traits and accelerate the development of improved rice varieties. These tools, together with innovative breeding strategies, provide new opportunities to enhance yield, grain quality, and resilience to biotic and abiotic stresses. This Special Issue will focus on integrative genomics, molecular marker applications, and innovative breeding approaches in rice. We particularly encourage studies addressing genetic variation, haplotype diversity, population structure, and trait–marker associations, as well as integrative analyses combining genomics, transcriptomics, metabolomics, and advanced computational approaches. We welcome original research articles, reviews, and short communications that report novel molecular tools, the functional validation of candidate genes, and practical applications of genomics-assisted breeding strategies for rice improvement.

Guest Editors

Dr. Mingxing Cheng
Dr. Wenchao Huang
Dr. Fengfeng Fan

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Agronomy
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
agronomy@mdpi.com

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Editor-in-Chief

Prof. Dr. Leslie A. Weston

Gulbali Centre for Agriculture, Water and Environment Research,
Charles Sturt University, Wagga Wagga, NSW 2678, Australia

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