Special Issue

Multi-Omics Approaches for Plant Responses to Abiotic and Biotic Stresses

Message from the Guest Editors

Abiotic stresses are the primary environmental stressors that negatively impact overall plant growth, survival, and productivity. This is a comprehensive research topic on which many studies have been carried out worldwide to unravel the molecular and physiological cross-talks under various abiotic stress conditions. Regardless of all these efforts, the diverse adaptive mechanisms of plants under stressful environments are still major roadblocks. Thus, new high-throughput technologies and mitigation strategies are prerequisites for producing stress-tolerant plants with improved agronomical traits. In recent years, emerging multi-omics, bioinformatics, and AI tools have been used to uncover novel molecular mechanisms underlying plant tolerance to various abiotic stress mechanisms. Therefore, this Special Issue aims to integrate various high-throughput sequencing datasets, multi-omics (genomics, epigenomics, transcriptomics, proteomics, hormonomics, metabolomics, interactomics, and phenomics) approaches, AI, and bioinformatics tools, and other related topics to develop new progress in explaining the molecular-level aspects of stress-resistant plant production.

Guest Editors

Dr. Pandiyan Muthuramalingam

Dr. Hyunsuk Shin

Prof. Dr. Manikandan Ramesh

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

mdpi.com/journal/plants

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Message from the Editor-in-Chief

Plants is an open access journal which provides an advanced forum for research findings in areas related to plant function, its physiology, biology, taxonomy, stresses, and its interactions with other organisms. It publishes original research articles, reviews, reports, conference proceedings (peer reviewed full articles) and communications. In original research papers, it is important that full experimental details are provided. We also encourage timely reviews and commentaries on topics of interest to the plant research community.

Editor-in-Chief

Prof. Dr. Dilantha Fernando
Department of Plant Science, University of Manitoba, Winnipeg, MB R3T 2N2, Canada

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