Special Issue

Systems-Level Understanding of Plant Adaptation to Abiotic Stress: Physiological and Biochemical Perspectives

Message from the Guest Editors

Abiotic stresses such as drought, salinity, extreme temperatures, and deficiencies of mineral nutrients are among the major environmental factors limiting the growth and productivity of plants. A comprehensive understanding of the mechanisms underlying stress perception, signal transduction, and adaptation requires an integrated systems-level approach encompassing molecular, biochemical, and physiological scales. We invite the submission of original research articles and review papers addressing, among others, changes in the transcriptome, proteome, and metabolome, as well as the regulation of hormonal signaling pathways, with particular emphasis on abscisic acid, cytokinins, ethylene, auxins, and jasmonates. Special attention will be given to studies employing multi-omics approaches and integrating experimental data with bioinformatic analyses and regulatory network modeling. We are also interested in contributions identifying key molecular regulators, such as transcription factors, kinases, and signaling proteins, that determine plant stress adaptation and may serve as targets for biotechnological and breeding strategies to enhance stress tolerance.

Guest Editors

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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

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