Special Issue

‘Omics’ and ‘Multi-Omics’ Insights into Plant Responses to Abiotic Stresses

Message from the Guest Editors

Plants are often exposed to abiotic stresses, which limit their growth and development. Crop yields may be reduced, resulting in insufficient food supply for the growing population. These stresses may occur concomitantly under field conditions, resulting in diverse effects on plant growth. While stress combinations such as drought and ozone may result in potentially positive interactions, others may cause more extensive plant cell damage and more significant yield reductions than the individual stresses. Consequently, there is growing interest among researchers in understanding the complex responses of plants to individual and combinations of abiotic stresses. A range of “omics” technologies are also improving our insights into stress-responsive changes in the transcriptome, proteome, and metabolome of plants, while the sequencing of entire plant genomes is providing resources to guide crop-improvement strategies. Therefore, this Special Issue welcomes submissions that broaden our insights into plant responses to individual abiotic stresses and their combinations using various “omics” approaches, including the functional validation of these data.

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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.

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