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Molecular Genetics in Plant Responses to Abiotic Stress

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Message from the Guest Editors

Abiotic stresses such as heat, drought and salinity present a great threat to global crop production and food security. Stressful conditions interfere with normal growth and development of plants. Crop yields and quality of the produce reduce significantly under exposure to abiotic stress conditions due to adjustments in plant's molecular, physiological and biochemical processes. Climate change has increased the intensity, frequency and duration of extreme weather events in recent times. Plants have evolved acclimation mechanisms to cope with abiotic stress challenges. These acclimation mechanisms involve receiving the stress signals and then communicating these signals to the other tissues. Advances in genetic technologies in combination with the availability of multi-omics datasets and high-throughput phenotyping measurements have contributed to improving the understanding of plant abiotic stress response. In this Special Issue, we invite high-quality research work including original research articles and reviews related to genetics and multi-omics aspects of plant abiotic stress responses.



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