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The Role of Signaling Molecules in Plant Stress Tolerance

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Message from the Guest Editors

Terrestrial plants are sessile organisms, meaning that they are permanently restricted to one place and cannot move away from harsh environmental conditions that can negatively affect their growth and development. As a result of their inability to escape, plants have evolved a wide range of effective biochemical and physiological mechanisms and efficient signal transduction pathways to rapidly respond and adapt to these stress conditions. Extracellular environmental stimuli are transmitted via signaling cascade into intracellular signals by the help of multiple signaling molecules. Plants produce numerous structurally and functionally diverse signaling molecules, including different plant hormones, reactive oxygen species (ROS) and reactive nitrogen species (RNS), proteins, amino acids, nucleotides, vitamins, NO, etc. They are essential for the regulation of growth and development of plants as well as for the activation of protective responses to both biotic and abiotic stresses.

We invite original research and review articles that will expand our understanding of the significance of signaling molecules in the response of plants to adverse environment.



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Special Issue



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Message from the Editor-in-Chief

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