Special Issue

New Insights into Plant Signaling Mechanisms in Biotic and Abiotic Stress

Message from the Guest Editors

Plants are constantly challenged by their environments, including both biotic and abiotic stress factors. As a result, plants have developed complex signaling pathways in response to various challenges, allowing them to adapt and survive. In order to detect and react to pathogen attacks, herbivore feeding, and symbiotic interactions in the case of biotic stress, plants use a complex network of signaling molecules, including phytohormones, reactive oxygen species (ROS), and secondary metabolites. When plants are exposed to abiotic stress, such as drought, extreme temperatures, salinity, and nutrient deficiencies, they use different signaling pathways to adapt. Abscisic acid (ABA), ethylene, jasmonic acid (JA), calcium ions, and other signaling molecules are involved in these pathways. These signaling molecules coordinate cellular responses such as stomatal closure, osmotic correction, and the activation of stress-responsive genes. Understanding the mechanisms of plant signaling networks involved in biotic and abiotic stress responses is essential for developing crop plants that are resilient to changing environmental conditions.

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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