Special Issue

Dynamic Redox-Dependent Adjustment and Signaling in Plants

Message from the Guest Editors

The lifestyle of plants exposes them to external variations ranging. These stresses result in ROS generation, which, at moderate levels, act as signaling molecules that initiate acclimation and adaptation responses. In excess, they lead to oxidative stress. ROS formation needs to be controlled to balance beneficial signaling role versus damaging effects. Through the evolution, plants have developed mechanisms to cope with life in a fluctuating environment. These mechanisms rely on the redox network that integrates information from metabolism and the environment. Plant cells contain a multitude of enzymes that form ROS upon stress to provoke a signaling cascade. Roles for thiol redox regulation of stress-related proteins that detect deviations from redox homeostasis allow for participation in ROS-dependent signaling events. These signaling cascades not only activate adaptation responses but also focus on maintaining redox homeostasis. This Special Issue welcomes articles investigating redox metabolism, redox sensing, and redox signaling in the broadest sense. We also appreciate the submission of full review articles that critically assess and discuss the current state of the art.

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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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