

Special Issue

ROS and Abiotic Stress in Plants

Message from the Guest Editors

Abiotic stresses cause plant growth inhibition, damage, and in the most severe cases cell death, resulting in major crop yield losses worldwide. Many abiotic stresses can lead to oxidative stress. Recent genetic and genomics studies have revealed highly complex and integrated gene networks related to abiotic stress and reactive oxygen species, which are responsible for stress adaptation. Thus, a systems biology approach is needed in order to understand the molecular mechanisms of stress tolerance and to find solutions for stress mitigation and secure crop production for the growing human population in an era of global climate change.

Our Special Issue aims to report original research that delves into the intricate pathways promoting plant tolerance to single or combined abiotic stresses as well as oxidative stress and provides novel insights into the control mechanisms regulating plant growth or defense programs under adverse conditions. Multidisciplinary approaches, studying the experimental systems from genetic, molecular biology, physiological, biochemical, and systems biology perspectives are encouraged.

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Deadline for manuscript submissions

closed (31 May 2020)



International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



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*International Journal of
Molecular Sciences*
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The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

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