International Journal of
Molecular Sciences

IMPACT FACTOR 5.6 | Indexed in: PubMed | CITESCORE 7.8

an Open Access Journal by MDPI

Plant Metabolites and Their Reprogramming for Plant Tolerance under Environmental Stress

Guest Editors:

Prof. Dr. Lam-Son Phan Tran
Institute for Genomics of Crop Abiotic Stress Tolerance (IGCAST), Texas Tech University, Lubbock, TX 79409, USA

Dr. Manish Kumar Patel
Department of Postharvest Science of Fresh Produce, Agricultural Research Organization (ARO), Volcani Institute, Rishon LeZion 7505101, Israel

Deadline for manuscript submissions:
closed (30 April 2022)

Message from the Guest Editors

Dear Colleagues,

Plant metabolites, including primary and secondary metabolites, are important compounds of plant development and are going through reprogramming in plant responses to stresses. Plants respond to abiotic stresses by altering several aspects, including gene expression and the contents of primary and secondary metabolites. These multifaceted changes enable plants to adapt to and tolerate adverse circumstances. Priming compounds, such as natural metabolites or synthetic compounds, have shown an excellent opportunity to increase environmental stress tolerance in various plants (agricultural crops and medicinal plants, etc.) without modification of their genome. Growing evidence has indicated the importance of metabolic reprogramming and priming to enhance abiotic stress tolerance in a wide range of important crops.

This Special Issue aims to collect scientific contributions that can provide more insights into metabolic adjustments and their regulations in plants. Characterization of the metabolite composition in plants grown under environmental stress conditions can help us to decipher the innovative metabolic signaling pathways.

International Journal of
Molecular Sciences

IMPACT FACTOR 5.6 | Indexed in: PubMed | CITESCORE 7.8

an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Maurizio Battino
Department of Odontostomatologic and Specialized Clinical Sciences, Sez-Biochimica, Faculty of Medicine, Università Politecnica delle Marche, Via Ranieri 65, 60100 Ancona, Italy

Message from the Editor-in-Chief

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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.
High Visibility: indexed within Scopus, SCIE (Web of Science), PubMed, PMC, MEDLINE, Embase, CAPlus / SciFinder, and other databases.
Journal Rank: JCR - Q1 (*Biochemistry & Molecular Biology*) / CiteScore - Q1 (*Inorganic Chemistry*)

Contact Us

International Journal of Molecular Sciences Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/ijms
ijms@mdpi.com
𝕏@IJMS_MDPI