



Omics Study to Uncover Signalling and Gene Regulation in Plants

Guest Editors:

Dr. Maria G. Samsonova

Mathematical Biology and
Bioinformatics Laboratory,
Institute of Physics and
Mechanics, Peter the Great St.
Petersburg Polytechnic
University, 195251 St. Petersburg,
Russia

**Dr. Eric J. Bishop von
Wettberg**

Department of Plant and Soil
Science and Gund Institute for
the Environment, University of
Vermont, Burlington, VT 05405,
USA

Deadline for manuscript
submissions:

closed (15 November 2022)

Message from the Guest Editors

To ensure survival and reproductive success, plants have evolved the ability to percept multiple stimuli and transmit this information into appropriate responses. This is achieved by coordinated action of signaling cascades and communication networks that broadcast signals throughout the plant body to orchestrate the expression of genes controlling plant physiology and development.

Omics studies are at the cornerstone of deciphering of signaling and communication networks in plants. These studies are based on a plethora of technologies including DNA sequencing and genotyping, transcriptome, epigenome, proteome and metabolome analysis. Recent advances in the integration of different omics technologies has led to a greater understanding of the functional consequences of signalling and gene regulation in plants.

This Special Issue aims to present the latest research in application of omics technologies and statistical and bioinformatic approaches to decipher signalling, gene regulation, and systemic communication pathways in plants. Both original research articles and comprehensive reviews are welcomed.





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