



Molecular Studies on Plant and Plant In Vitro Systems Secondary Metabolism

Guest Editor:

Dr. Andrey Marchev

Laboratory of Metabolomics,
Department of Biotechnology,
The Stephan Angeloff Institute of
Microbiology, Bulgarian Academy
of Sciences, 139 Ruski Blvd, 4000
Plovdiv, Bulgaria

Deadline for manuscript
submissions:

25 September 2024

Message from the Guest Editor

Dear Colleagues,

For centuries, plants have been intensively utilized as reliable sources of food and flavoring. Along with the primary metabolites, plants are notable for their considerable spectrum of secondary metabolites (SMs), such as phenylpropanoids and their derivatives (flavonoids, phenolic acids, and lignins), terpenes (isoprenoids and terpenoids), and nitrogen-containing compounds (alkaloids and heterocyclic aromatics) that possess beneficial biological activities which are important to humans, including anticancer, anti-inflammatory, antimicrobial, and antioxidant properties, among others. Currently, these compounds are obtained via plant raw material extraction, plant in vitro systems cultivation, or chemical synthesis. In general, the content of these SMs in plants is very low (<1%); therefore, approaches for enhancing the biosynthesis of high-value marketable molecules produced via plant/plant in vitro systems, have been frequently applied.

The present Special Issue (SI) is dedicated to discussing the various advances in studying the molecular networks of secondary metabolism accumulation in plants and plant in vitro systems.





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