

Special Issue

Research on Plant-Microbe Interactions

Message from the Guest Editor

Plant-microbe interactions refer to the complex relationships between plants and microorganisms in their environment, which can be beneficial, neutral, or pathogenic. These interactions are mediated by a variety of molecular signals, including plant-derived compounds, microbial metabolites, and cell-to-cell communication mechanisms. Plant-associated microbes and microbiome in the rhizosphere, phyllosphere, and endosphere have drawn much attention due to their critical roles in plant growth and health. Some bacteria and fungi are capable of improving ecological environment, enhancing plant growth, nutrient uptake, and resistance to biotic/abiotic stresses, and are showing great potential in sustainable agricultural and forestry production. Effective colonization is the key for plant-associated microbes and microbiome to exert their functions. Plant-microbe interactions play a vital role in maintaining ecological balance, influencing soil health, nutrient cycling, and biodiversity, enhancing the environmental adaptability of plants and plant health. However, signals and mechanisms are still unclear.

Guest Editor

Dr. Lin Chen

Experimental Center of Forestry in North China, Chinese Academy of Forestry, Beijing 102300, China

Deadline for manuscript submissions

30 October 2025



International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



mdpi.com/si/224575

*International Journal of
Molecular Sciences*
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
ijms@mdpi.com

[mdpi.com/journal/
ijms](https://mdpi.com/journal/ijms)





International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



[mdpi.com/journal/
ijms](https://mdpi.com/journal/ijms)



About the Journal

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.

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

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 and Molecular Biology) / CiteScore
- Q1 (Organic Chemistry)