

## Special Issue

# Functional Genomics and Computational Biology of Horticultural Plants

### Message from the Guest Editor

Horticultural species are vital for global agribusiness and contribute to a sustainable, healthy diet. However, climate change, population growth, and susceptibility to stresses threaten their productivity. To address these challenges, sustainable and resilient horticultural varieties with high nutritional value are needed. Functional genomics and computational biology in horticultural plants explore gene functions and interactions through techniques like transcriptomics, proteomics, and metabolomics. These methods, along with computational tools, help uncover plant traits, stress responses, and biological mechanisms, advancing crop breeding for climate resilience. Integrating functional genomics with multi-omics data will aid in identifying key traits for crop selection, enhancing productivity. The scope includes gene regulation, genetic improvement, genome editing (e.g., CRISPR/Cas9), stress responses, RNA silencing, and computational models for simulating plant growth and predicting traits like yield and stress tolerance. We cordially invite submissions of research in the field of 'Functional Genomics and Computational Biology in Horticultural Plants'.

---

### Guest Editor

Dr. Claudio Pugliesi

Department of Agriculture, Food and Environment (DAFE), University of Pisa, Via del Borghetto 80, I-56124 Pisa, Italy

---

### Deadline for manuscript submissions

30 November 2026



## International Journal of Molecular Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.9  
CiteScore 9.0  
Indexed in PubMed



[mdpi.com/si/244859](https://mdpi.com/si/244859)

*International Journal of  
Molecular Sciences*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[ijms@mdpi.com](mailto: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)* 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, and molecular biophysics. *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. José L. Quiles  
Department of Physiology, Institute of Nutrition and Food Technology  
"Jose Mataix", Biomedical Research Center, University of Granada,  
Avda. Conocimiento s/n, 18100 Armilla, Granada, Spain

---

### 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, CAPus / SciFinder, and other databases.

#### Journal Rank:

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