

## Special Issue

# Plant Defense Genes Against Biotic Stresses

### Message from the Guest Editor

Plant–pest and pathogen relationships are intricate interactions encompassing complex networks of molecules and signalling pathways and strategies to overcome defenses developed by each other. The induction of plant defense genes is initiated when specific receptors recognize the presence of pathogen, pest, incurred damage, or their volatiles. The success of plants in withstanding biotic stresses depends on their fast response by triggering a wide range of specific genes and compounds with defense properties. These plant defences locally or systemically induced by biotic stresses are regulated by a complex hormonal cross-talk. Transcriptomic and proteomic profiles have demonstrated that plants may discriminate among species of pathogens and pests and activate specific responses. Metabolomic approaches have corroborated plants' ability to differentiate species and determine the onset of indirect defense responses to complement the direct defenses.

This Special Issue calls papers covering all aspects on the understanding of plant response to biotic stresses.

Prof. Isabel Díaz

---

### Guest Editor

Prof. Dr. Isabel Díaz Rodríguez

Universidad Politécnica de Madrid, Centro de Biotecnología y Genómica de Plantas, Madrid, Spain

---

### Deadline for manuscript submissions

closed (30 June 2018)



## International Journal of Molecular Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.9  
CiteScore 9.0  
Indexed in PubMed



[mdpi.com/si/8833](https://mdpi.com/si/8833)

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

[ijms](https://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)