

## Special Issue

# Molecular Mechanisms and Signal Transduction Pathways of Plant Immunity

### Message from the Guest Editors

In nature, to cope with pathogens and survive, plants evolved a complex immune system composed by pattern-triggered immunity (PTI) and effector-triggered immunity (ETI). PTI is activated by the plasma membrane-localized pattern recognition receptors (PRRs) through sensing the conserved pathogen-associated molecular patterns (PAMPs). ETI is mediated by the intracellular nucleotide-binding site (NBS) leucine-rich repeat (LRR) domain receptors (NLRs) through recognizing pathogen effectors. Both PRRs and NLRs belong to immune receptors that play important roles in activating and initiating plant immune networks. The aim of this special issue is to highlight recent advances in the underlying molecular mechanisms and signal transduction pathways of plant defense response. New molecular approaches or tools to study plant-pathogen interactions are also welcome. Identification of novel PRRs/PAMPs and NLRs/effectors

Role of key proteins downstream of immune receptors in plant defense

Dynamic distribution of immune receptors upon pathogen infection

Interactions between immune components in plant defense

Target and modification of host proteins by pathogen effectors.

---

### Guest Editors

Dr. Wei Wang

College of Agriculture, Fujian Agriculture and Forestry University, Fuzhou 350002, China

Dr. Libo Han

Plant Immunity Center, Fujian Agriculture and Forestry University, Fuzhou 350001, China

---

### Deadline for manuscript submissions

closed (31 December 2025)



## Plants

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.1  
CiteScore 7.6  
Indexed in PubMed



[mdpi.com/si/224351](https://mdpi.com/si/224351)

*Plants*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[plants@mdpi.com](mailto:plants@mdpi.com)

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





# Plants

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.1  
CiteScore 7.6  
Indexed in PubMed



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



## About the Journal

### Message from the Editor-in-Chief

*Plants* is an open access journal which provides an advanced forum for research findings in areas related to plant function, its physiology, biology, taxonomy, stresses, and its interactions with other organisms. It publishes original research articles, reviews, reports, and conference proceedings (peer reviewed full articles) and communications. In original research papers, it is important that full experimental details are provided. We also encourage timely reviews and commentaries on topics of interest to the plant research community.

---

### Editor-in-Chief

Prof. Dr. Dilantha Fernando  
Department of Plant Science, University of Manitoba, Winnipeg, MB  
R3T 2N2, Canada

---

### 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, PubAg, AGRIS, CAPlus / SciFinder, and other databases.

#### Journal Rank:

JCR - Q1 (Plant Sciences) / CiteScore - Q1 (Ecology, Evolution, Behavior and Systematics)