

Special Issue

Molecular Mechanisms and Crosstalk in Plant Root Tropisms

Message from the Guest Editor

Plant root tropisms are fundamental behavioral responses that allow roots to navigate complex soil environments and optimize access to water, nutrients, oxygen, and mechanical stability. Recent advances in plant biology highlight the remarkable plasticity of root systems and the extensive crosstalk among tropistic pathways. The emerging concept of plant “behavior,” especially under variable or adverse conditions, further emphasizes the need to uncover the molecular logic underlying these responses. This Special Issue welcomes submissions (original research/reviews) focusing on:

- Molecular mechanisms and signaling networks of root tropisms
- Hormonal crosstalk and vesicle trafficking dynamics
- Physiological responses underlying root tropisms
- Novel stimuli and integrative signaling processes
- Root behavioral plasticity and multi-tropism interactions

Guest Editor

Dr. Wei Siao

Institute of Plant Biology, National Taiwan University, Taipei 10617, Taiwan

Deadline for manuscript submissions

31 August 2026



Plants

an Open Access Journal
by MDPI

Impact Factor 4.1
CiteScore 7.6
Indexed in PubMed



mdpi.com/si/266106

Plants
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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, 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)