Special Issue

Signal Transduction and Molecular Mechanisms of Plant-Microbe Symbiosis

Message from the Guest Editor

Plant-microbe symbiosis is essential for improving plant growth, nutrient acquisition, and stress tolerance, primarily through interactions with bacteria and fungi. Central to these relationships is a complex network of signal transduction pathways that facilitate communication between plants and microbes. This Special Issue focuses on the molecular mechanisms underlying these symbiotic interactions, examining how plants detect beneficial microbes, trigger signaling cascades, and regulate gene expression. A deeper understanding of these processes is crucial for promoting sustainable agriculture, enhancing crop resilience, and developing innovative biotechnological solutions to boost plant health and productivity in a rapidly changing environment. By exploring these molecular mechanisms, we can unlock new strategies to optimize plant–microbe symbiosis and contribute to more efficient and resilient agricultural systems.

Guest Editor

Dr. Jongho Sun
Crop Science Centre, Department of Plant Sciences, University of Cambridge, Cambridge CB3 0LE, UK

Deadline for manuscript submissions

closed (25 March 2025)

GCAT
TACG
GCAT

Genes

an Open Access Journal by MDPI

Impact Factor 2.8
CiteScore 5.5
Indexed in PubMed

mdpi.com/si/217146

Genes
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
genes@mdpi.com

mdpi.com/journal/genes

MDPI

GCAT
TACG
GCAT

Genes

an Open Access Journal by MDPI

Impact Factor 2.8
CiteScore 5.5
Indexed in PubMed

mdpi.com/journal/genes

MDPI

About the Journal

Message from the Editor-in-Chief

Genes is central to our understanding of biology, and modern advances such as genomics and genome editing have maintained genetics as a vibrant, diverse and fast-moving field. There is a need for good quality, open access journals in this area, and the *Genes* team aims to provide expert manuscript handling, serious peer review, and rapid publication across the whole discipline of genetics. Starting in 2010, the journal is now well established and recognised. Why not consider *Genes* for your next genetics paper?

Editor-in-Chief

Prof. Dr. Selvarangan Ponnazhagan
Experimental Cancer Therapeutics, The University of Alabama at Birmingham, 1825 University Blvd., SHEL 814, Birmingham, AL 35294-2182, USA

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, MEDLINE, PMC, Embase, PubAg, and other databases.

Journal Rank:

JCR - Q2 (Genetics and Heredity) / CiteScore - Q2 (Genetics (clinical))