

## 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

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### Deadline for manuscript submissions

closed (25 March 2025)

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