



Molecular Research on Rhizobia

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Message from the Guest Editors

Rhizobia, the main contributors to Biological nitrogen fixation (BNF), consist of a large group of α - and β -proteobacteria that can form symbiotic associations with leguminous plants, inducing the formation of plant nodules where nitrogen fixation takes place. During this symbiotic interaction, rhizobia must respond to a battery of signals and consequently undergo severe changes in their physiology, from free-living conditions in the soil to a symbiotic state within the highly specialized environment of a plant cell. Biotic and abiotic stresses also affect the fitness of symbiotic efficiency. Recent insights from multidisciplinary disciplines including microbiology, genetics, molecular biology, biochemistry, biodiversity, and omics sciences have improved our understanding of the molecular mechanisms underlying rhizobia–plant interactions, which serves as a basis for the development of biotechnological tools and sustainable agricultural practices. This Special Issue aims to bring together the latest developments and state-of-the-art molecular research in the field of rhizobia, with original articles and concise reviews by experts in the field.





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Message from the Editor-in-Chief

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