

Special Issue

The Rhizobium-Legume Symbiosis

Message from the Guest Editors

Evolution of the rhizobium–legume symbiosis appears to be due to a single predisposition event. This fascinating symbiosis allows for the plants to thrive in nitrogen-deficient soils, and the rhizobia receive carbon in return for the fixed nitrogen. Genetic, genomic, and biochemical studies have provided significant, but fragmented insights into the nature of chemical signals, how they are perceived, components of the signal transduction pathway, hormone action associated with organogenesis, biochemical components and reactions associated with nitrogen fixation, and nitrogen transport. Significant knowledge gaps exist on the components of these processes and their precise regulation. This Special Issue welcomes articles (original research papers, perspectives, reviews, and modeling approaches and methods) on “The Rhizobium–Legume Symbiosis” in four major sub-topics, namely: (i) Nod factor signaling, (ii) nodule organogenesis, (iii) nitrogen fixation, and (iv) agronomical and environmental impacts.

Guest Editors

Dr. Senthil Subramanian

Department of Biology and Microbiology, South Dakota State University, Brookings, SD 57007, USA

Dr. Georgina Hernández

Centro de Ciencias Genómicas, Universidad Nacional Autónoma de México, Avenida Universidad 2001, Cuernavaca 62210, Morelos, Mexico

Deadline for manuscript submissions

closed (31 May 2020)



Plants

an Open Access Journal
by MDPI

Impact Factor 4.1
CiteScore 7.6
Indexed in PubMed



mdpi.com/si/28996

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)