

## Special Issue

# Plant Growth—Promoting Bacteria and Plant—Soil Interactions in Harsh Environments, 2nd Edition

### Message from the Guest Editors

Plant-growth-promoting bacteria (PGPBs) are a diverse group of bacteria which induce beneficial effects in plants, both directly and indirectly. Many bacterial isolates have been characterized and used as inoculants to improve nutrient acquisition and mitigate environmental stress or for the biocontrol of pathogens. Consequently, we especially welcome works on the following topics:

- Prospection of endophytic/rhizosphere/phylosphere bacteria with plant-growth potential.
- Exploring the role of PGPBs on wild and cultivated plants.
- Interaction of PGPBs on the microbial communities of their host and soil.
- Validation of bacterial inoculants interacting with plants used in soil rehabilitation.
- Elucidation of new mechanisms of plant growth promotion.

**Keywords:** plant growth-promoting bacteria; endophytes; environmental stress; nitrogen fixing bacteria; P and K solubilizing bacteria; mechanisms of plant growth; PGPB-plant interaction soil microbial communities; soil rehabilitation; bacterial inoculants and biosafety

---

### Guest Editors

Dr. Blanca R. López

1. Environmental Microbiology Group, Northwestern Center for Biological Research (CIBNOR), La Paz, Mexico
2. Bashan Institute of Science, Auburn, AL, USA

Prof. Dr. Luz De-Bashan

Bashan Institute of Science, Auburn, AL, USA

---

### Deadline for manuscript submissions

30 November 2025



**Microorganisms**

---

an Open Access Journal  
by MDPI

---

**Impact Factor 4.2**  
**CiteScore 7.7**  
**Indexed in PubMed**



[mdpi.com/si/189430](https://mdpi.com/si/189430)

*Microorganisms*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[microorganisms@mdpi.com](mailto:microorganisms@mdpi.com)

[mdpi.com/journal/  
microorganisms](https://mdpi.com/journal/microorganisms)





## Microorganisms

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.2  
CiteScore 7.7  
Indexed in PubMed



[mdpi.com/journal/  
microorganisms](https://mdpi.com/journal/microorganisms)



## About the Journal

### Message from the Editor-in-Chief

"Microorganism" merges the idea of the very small with the idea of the evolving reproducing organism is a unifying principle for the discipline of microbiology. Our journal recognizes the broadly diverse yet connected nature of microorganisms and provides an advanced publishing forum for original articles from scientists involved in high-quality basic and applied research on any prokaryotic or eukaryotic microorganism, and for research on the ecology, genomics and evolution of microbial communities as well as that exploring cultured microorganisms in the laboratory.

---

### Editor-in-Chief

Dr. Nico Jehmlich

Department of Molecular Toxicology, UFZ-Helmholtz Centre for  
Environmental Research, 04318 Leipzig, Germany

---

### Author Benefits

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, PubAg, CAPlus / SciFinder, AGRIS, and other databases.

#### Journal Rank:

JCR - Q2 (Microbiology) / CiteScore - Q1 (Microbiology (medical))

#### Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 15.2 days after submission; acceptance to publication is undertaken in 2.9 days (median values for papers published in this journal in the first half of 2025).