

## Special Issue

# The Role of Microbial Biotechnology in the Development of Sustainable Biopolymers

### Message from the Guest Editors

The widespread use of traditional plastics has resulted in governments and citizens today being confronted with their harmful effects on the environment and on human and animal health. For this reason, and considering the global demands of society, the search for new polymers that can replace petroleum-based plastics is urgent. Microbial synthesized polymers are considered to be the main candidates to achieve this change, due to their interesting properties, e.g., biodegradability, biocompatibility, non-toxicity, thermoplasticity, and so on. Microbial biotechnology allows progress to be made on new developments to replace traditional plastics. New biotechnological techniques have made it possible to study the mechanisms of biopolymer synthesis in microorganisms in depth. We are confident that the new advances related to the topic of this Special Issue will be of great interest to many professionals and academics. It is a pleasure to invite you to submit original articles or reviews on the importance of microbial biotechnology and new genomic advances in the development of new biopolymers.

### Guest Editors

Dr. Alejandro Chamizo-Ampudia

Área de Bioquímica y Biología Molecular, Departamento de Biología Molecular, Facultad de Veterinaria, Universidad de León, Leon, Spain

Dr. Silvia González-Rojo

Centro de Biocombustibles y Bioproductos, Instituto Tecnológico Agrario de Castilla y León (ITACyL), Polígono Agroindustrial del Órbigo p. 2-6, Villarejo de Órbigo, 24358 Leon, Spain

### Deadline for manuscript submissions

closed (15 January 2025)



Microorganisms

an Open Access Journal  
by MDPI

Impact Factor 4.1  
CiteScore 7.4  
Indexed in PubMed



[mdpi.com/si/188566](https://mdpi.com/si/188566)

*Microorganisms*  
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 4.1  
CiteScore 7.4  
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 - Q2 (Microbiology)

#### Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 11.7 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the second half of 2024).