

Special Issue

Advances in Metabolic Engineering of Industrial Microorganisms

Message from the Guest Editors

The Special Issue welcomes original research articles, reviews, and perspectives that span a wide spectrum of topics within the realm of the metabolic engineering of industrial microorganisms, including, but not limited to, the following:

- Rational and synthetic biology approaches for enhancing microbial productivity;
- Strain improvement and optimization through genetic modification and selection;
- Directed evolution and adaptive laboratory evolution for enhanced phenotypes;
- Systems biology-guided metabolic pathway design and optimization;
- Pathway engineering for the production of biofuels, chemicals, pharmaceuticals, and biomaterials;
- Novel tools and techniques for fine-tuning metabolic pathways and regulation;
- Engineering strategies for enhancing strain robustness, stability, and scalability.

We aim to foster interdisciplinary collaboration and catalyze advancements in the metabolic engineering of industrial microorganisms. We encourage researchers and experts to contribute their groundbreaking work to this Special Issue, driving innovation and knowledge dissemination in the dynamic field of metabolic engineering.

Guest Editors

Dr. Shuwen Liu

Institute of Microbiology, Chinese Academy of Sciences, Beijing 100101, China

Prof. Dr. Shuobo Shi

Beijing Advanced Innovation Center for Soft Matter Science and Engineering, College of Life Science and Technology, Beijing University of Chemical Technology, Beijing 100029, China

Deadline for manuscript submissions

closed (31 May 2025)



Microorganisms

an Open Access Journal
by MDPI

Impact Factor 4.2
CiteScore 7.7
Indexed in PubMed



mdpi.com/si/183210

Microorganisms
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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 20 days after submission; acceptance to publication is undertaken in 2.9 days (median values for papers published in this journal in the second half of 2025).