Special Issue

Engineered Microbial Systems for Innovative Bioprocessing Solutions

Message from the Guest Editor

Microbial engineering has become a cornerstone of modern biotechnology. Engineered microorganisms and microbial consortia offer unprecedented opportunities to convert renewable feedstocks into high-value products, integrate bioprocesses with circular economy principles, and develop innovative solutions for industrial and environmental applications.

This Special Issue aims to assemble a collection of high-quality research articles and review papers that highlight strategies integrating synthetic biology, metabolic engineering, and systems-level design to create robust microbial systems capable of addressing industrial and environmental challenges.

Suggested research areas included (but are not limited to):

- Development of microbial chassis and synthetic biology tools for advanced bioprocessing
- Metabolic pathway optimization and systems biology approaches for high-yield production
- Engineered microbial consortia for division of labor, enhanced substrate utilization, and complex bioconversions
- Electro-fermentation and bioelectrochemical systems integrating microbial electron transfer with process control for improved efficiency and product selectivity

Guest Editor

Dr. M. Ahsanul Islam
Department of Chemical Engineering, Loughborough University, Loughborough LE11 3TU, UK

Deadline for manuscript submissions

20 July 2026

Microorganisms

an Open Access Journal by MDPI

Impact Factor 4.2
CiteScore 7.7
Indexed in PubMed

mdpi.com/si/267966

Microorganisms
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
microorganisms@mdpi.com

mdpi.com/journal/microorganisms

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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

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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).

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