

Special Issue

Advances in Microbial Cell Factories, 4th Edition

Message from the Guest Editors

In the “cell factory” concept, microorganisms convert substrates into desirable products. Well-established fermentation products include beer, antibiotics, and insulin. Recent developments enabled by native and engineered microbial cell factories include oleochemicals, biopolymers, biofuels, animal feed, biopesticides, nutraceuticals, and flavors. Currently, the availability of standardized and newly developed cloning and expression vectors, the accessibility and affordability of de novo DNA synthesis, the advancement in bioinformatics tools, and the expansion of biological databases have allowed cells to become more programmable. In this revolutionized era, the design and modeling of bioprocesses, AI-guided automation, and high-throughput process monitoring significantly reduce bioprocess development time and costs. This Special Issue of *Microorganisms* provides a platform for authors to present novel tools and scientific concepts on microbial cell factories through research articles, reviews, and editorials. We invite you to send contributions relating to the development of microbial production platforms of eukaryotic and prokaryotic origin.

Guest Editors

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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.

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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).