

Special Issue

Yeast Metabolic Engineering and Fermentation Technology

Message from the Guest Editor

Yeasts, as versatile microbial cell factories, have revolutionized the sustainable production of chemicals, pharmaceuticals, and food ingredients through metabolic engineering and advanced fermentation technologies. This Special Issue aims to focus on:

- Discovery and engineering of synthetic catalytic/regulatory components to enhance pathway efficiency and product diversity;
- Reprogramming yeast metabolism through systems biology approaches, including energy balancing, cofactor manipulation, and elimination of metabolic bottlenecks;
- Development of novel yeast chassis (non-conventional yeasts) with improved stress tolerance, substrate utilization, and genetic stability;
- Fermentation process innovations for scalable production of target compounds, integrating multi-omics analysis, machine learning, and bioreactor engineering.

Guest Editor

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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 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).