# Special Issue

# Microalgal Ecology and Biotechnology

## Message from the Guest Editor

Microalgae have emerged as promising microorganisms with immense ecological and biotechnological potential. They play crucial roles in aquatic ecosystems, contributing to global carbon cycling, oxygen production, and nutrient dynamics. Simultaneously, microalgae have attracted increasing attention for their ability to produce valuable bioactive compounds, biofuels, and functional foods and for their applications in wastewater treatment and carbon capture. Understanding the ecology of microalgae is essential for optimizing their cultivation and utilization in diverse industrial and environmental applications. The aim of this Special Issue of *Microorganisms* is to highlight recent advances in microalgal ecology and biotechnology. We welcome manuscripts addressing microalgal diversity, physiological and metabolic responses to environmental conditions, genetic engineering, cultivation strategies, and applications in sustainable biotechnology.

## Guest Editor

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## Deadline for manuscript submissions

closed (28 February 2026)

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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

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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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