

# Special Issue

## Microorganisms in Aquatic Environments: Emphasis on Computational, In Vitro and Ex Vivo Studies

### Message from the Guest Editors

This Special Issue seeks to uncover the role of microorganisms in the maintenance of health and welfare of cultured aquatic species, including animals and plants. Aside from in vivo studies, we welcome research using in vitro/ex vivo systems to study microorganism–host interactions in accordance with the 3Rs. Advanced lab-based methods, including cell lines, fish explant cultures, simulated in vitro digestion, etc., can substantially reduce the use of animals. We aim to provide a unique overview of the in vitro methods used to test the interaction between microbes and aquatic organisms. Furthermore, modifications of the nutritive value of feeds and live food, as well as the microbial composition of live food, using microorganisms, are of special interest. We invite researchers to share innovative and applicative ex vivo and in vivo results that are relevant to the topic. The interpretation of the data should be based on thorough statistical analysis. Bioinformatics and machine learning methods would be highly appreciated. We additionally welcome review articles giving a systematic overview of microbiota compositions in different species, at different life stages, etc.

### Guest Editors

Dr. Jovanka Lukić

Laboratory for Molecular Microbiology (LMM), Institute of Molecular Genetics and Genetic Engineering (IMGGE), University of Belgrade, Vojvode Stepe 444a, 11042 Belgrade, Serbia

Dr. Uroš Ljubobratović

Research Centre of Aquaculture and Fisheries, Institute of Aquaculture and Environmental Safety, Hungarian University of Agriculture and Life Sciences, H-5540 Szarvas, Hungary

### Deadline for manuscript submissions

15 January 2026



**Microorganisms**

an Open Access Journal  
by MDPI

**Impact Factor 4.2**  
**CiteScore 7.7**  
**Indexed in PubMed**



[mdpi.com/si/223471](https://mdpi.com/si/223471)

*Microorganisms*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[microorganisms@mdpi.com](mailto: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 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).