

# Special Issue

## Effects of Gut Microbiota on Human Health and Disease

### Message from the Guest Editor

Intestinal microbiota may contribute to animal health and disease. However, to gain a mechanistic understanding of how the gut microbiota affects animal health and disease, the current research is moving away from descriptive microbiota census analyses toward cause-and-effect studies. Joint analyses of high-throughput animal multi-omics data, together with measures of host physiology and mechanistic experiments in animals and cells, hold potential as initial steps in the identification of potential molecular mechanisms behind previously reported associations. Through this topic, we will discuss the current knowledge on how gut microbiota and derived microbial compounds may link to the metabolism of the healthy animal host or to the pathogenesis of common animal diseases.

The aim of this Special Issue of *Microorganisms* is to present a collection of articles that provide a current snapshot of the research on the effects of gut microbiota on animal health and disease. Manuscripts covering all aspects of research relating to gut microbiota and animal health and disease are welcome, including livestock, poultry, aquaculture, special economic animals, wild animals, etc.

---

### Guest Editor

Dr. Yunhuan Liu

MOE Joint International Research Laboratory of Animal Health and Food Safety, College of Veterinary Medicine, Nanjing Agricultural University, Nanjing 210095, China

---

### Deadline for manuscript submissions

closed (30 April 2024)



## Microorganisms

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.2  
CiteScore 7.7  
Indexed in PubMed



[mdpi.com/si/175385](https://mdpi.com/si/175385)

*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 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).