Special Issue

Gut Microbiome, Zoonotic Diseases, and Pathogen–Host Interactions

Message from the Guest Editors

The Special Issue "Gut Microbiota, Zoonotic Diseases and Antimicrobial Research" welcomes submissions addressing gut microbial ecology, the transmission dynamics of zoonotic diseases, host–microbiome interactions, and novel detection methods targeting zoonotic pathogens. Specifically, the Special Issue will cover the following core topics:

- The Gut Microbiome's Role in Host Health: Exploring its contributions through metabolite production, nutrient processing, gut barrier maintenance, and immune modulation.
- Zoonotic Pathogen Transmission and Pathogenesis: Analyzing routes, mechanisms, survival strategies, and immune adaptation in animals and humans.
- Host–Microbiome Interactions: Uncovering bidirectional communication using high-throughput sequencing, single-cell sequencing, and metabolomics. Exploring immune recognition and regulation.
- Novel Detection Methods: Introducing innovative technologies for sensitive, specific, and rapid pathogen detection.
- Prevention and Control Strategies: Based on research, discussing gut microbiome modulation, vaccine development, and policy improvements to combat zoonotic diseases. Emphasizing interdisciplinary collaboration.

Guest Editors

Dr. He Zhang

Dr. Qiang Zhang

Dr. Andreia J. Amaral

Deadline for manuscript submissions

closed (31 July 2025)

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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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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).

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