

Special Issue

Tick Biology and Microorganism Interaction: Understanding the Groundwork of Pathogen Transmission Mechanisms

Message from the Guest Editors

Ticks are responsible for transmitting numerous pathogens that can cause severe and potentially fatal diseases to humans and animals. Zoonotic tick-borne diseases have continued to emerge over the years. Ticks could be small, but their biology is also intricate, making them efficient vectors of pathogens. They have unique reproductive and survival mechanisms that allow them to persist, also favoring the proliferation and transmission of pathogens. Thus, a deeper understanding of their biological mechanisms is crucial to develop new strategies for effectively controlling them and their pathogens. Through the years, several aspects of tick biology have been elucidated. Moreover, the relationship of ticks with different microorganisms, such as the essential role that symbiotic bacteria play in the survival and development of ticks and the significance of tick biomolecules in pathogen multiplication and transmission, is now recognized. This Special Issue aims to showcase the recent research developments on different aspects of tick biology and their interaction with microorganisms, including the pathogens they transmit.

Guest Editors

Dr. Rika Umemiya-Shirafuji

National Research Center for Protozoan Diseases, Obihiro University of Agriculture and Veterinary Medicine, Obihiro, Japan

Dr. Remil L. Galay

Department of Veterinary Paraclinical Sciences, College of Veterinary Medicine, University of the Philippines Los Baños, Los Baños, Philippines

Deadline for manuscript submissions

closed (31 March 2023)



Microorganisms

an Open Access Journal
by MDPI

Impact Factor 4.2
CiteScore 7.7
Indexed in PubMed



mdpi.com/si/110643

Microorganisms
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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).