Special Issue

Pathogen Infections in Aquatic Animals—Advanced Detection Technologies, Precision Identification, and Pathogenic Mechanisms

Message from the Guest Editors

Research areas may include (but are not limited to) the following:

- The isolation and identification of novel and emerging pathogens affecting aquatic animals.
- The development and validation of advanced diagnostic tools and rapid detection methods for aquatic animal pathogens (e.g., PCR-based assays, CRISPR-based diagnostics, biosensors, and immunological methods).
- The molecular mechanisms of pathogenicity, host–pathogen interactions, and immune responses in aquatic animals.
- Studies on pathogen virulence factors and their roles in disease progression.
- The epidemiology, transmission dynamics, and risk assessment of aquatic animal diseases.
- The development of effective vaccines, probiotics, prebiotics, and other prophylactic or therapeutic strategies to combat aquatic animal infections.
- Antimicrobial resistance in aquatic pathogens and strategies for its mitigation.
- The ecological impacts of pathogen outbreaks on wild aquatic populations and ecosystems.
- Genomic and proteomic approaches to understanding aquatic animal diseases.
- Innovative approaches to disease surveillance and ensuring biosecurity in aquaculture.

We look forward to receiving your contributions.

Guest Editors

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Microorganisms

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Impact Factor 4.2
CiteScore 7.7
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mdpi.com/si/246597

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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.

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