Special Issue

Molecular Mechanisms of Fish Immune Response

Message from the Guest Editor

We are pleased to invite contributions to this Special Issue, which will focus on the molecular mechanisms underlying fish immune responses, systematically examining the latest advancements in key processes such as pathogen recognition, signal transduction, effector molecule regulation, and evolutionarily adaptive responses in teleost species. Through the integration of multidisciplinary methodologies, this Special Issue aims to uncover molecular mechanisms of fish resilience to pathogens and stressors, supporting sustainable aquaculture. This Special Issue welcomes research and review articles on the following topics:

- Identification of the fish pattern recognition receptors (PRRs) that detect microbial components (PAMPs), and elucidation of the triggered immune responses.
- Novel insights into the innate and adaptive immunity of aquatic animals, including the functional roles and regulatory mechanisms of immune-related genes, proteins, cells, and tissues.
- Recent advances in our understanding of immune regulation, inflammatory mechanisms, and defense strategies against pathogenic infections and environmental stressors.

We look forward to receiving your contributions.

Guest Editor

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Deadline for manuscript submissions

closed (15 April 2026)

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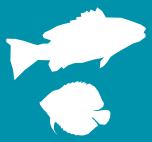

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About the Journal

Message from the Editor-in-Chief

Fishes is a multidisciplinary open access journal focusing on reports of original research and critical reviews and synthesis from the broad area of fishes and aquatic animals. The ultimate objective of *Fishes* is to facilitate the discovery of connections between research areas, advancing science and filling knowledge gaps, and providing solutions for all present and future issues encountered in the sector of fisheries and aquaculture. As Editor-in-Chief, I encourage you to consider *Fishes* for your scientific papers and would be pleased to welcome you as one of our authors.

Editor-in-Chief

Prof. Dr. Maria Angeles Esteban
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