

Special Issue

Immune Response in Fish

Message from the Guest Editors

In vertebrates, immunity was classically divided into two components: the innate immune response and the adaptive (acquired) immune response. Fish have evolved with both innate and adaptive immune mechanisms. The main defense mechanism in fish is innate immunity, which is the most ancient defense and works efficiently to defend organisms against microbial infections. The adaptive response of fish is commonly delayed but is essential for long-lasting immunity. The massive increase in aquaculture in recent decades has promoted research on the fish immune system and the immune response to pathogen infection. The aim of this Special Issue is to collect recent advances in the current understanding of the immune response against pathogen infection in fish. This Special Issue will publish original research papers and reviews on the immune response of fish in relation to the following topics:

- Molecular responses to bacteria, viruses, or parasites
- Innate immune molecules
- Adaptive immune molecules
- Signal transduction in immune response

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Deadline for manuscript submissions

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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

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