



Effects of Diet on Fish Metabolism and Immunity

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Message from the Guest Editor

The effect of diet on the metabolic and immune processes in fish is mainly affected by a proper balance of macro- and micronutrients, including amino acids, fatty acids, vitamins, and trace elements, all essential for the development of the fish immune system at different life stages. Dietary deficiencies can negatively affect the fish metabolism and the immune system, and severe deficiencies will increase susceptibility to disease and death. As adequate nutrition is essential for the immune system cells to divide and synthesize effector molecules, diet uptake also indirectly regulates the immune system mediated through the endocrine system. Moreover, diet composition may modify the microorganism biome in the gastrointestinal tract and the integrity of intestinal epithelium equally, contributing to fish health and welfare. This Special Issue of *Fishes* aims to publish papers that deal with the abovementioned knowledge on the diet effects of fish metabolism and the metabolic pathways that influence the immune system in fish.





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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.

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