Special Issue

Fish Nutrition, Biochemical Pathways, and Physiological Adaptations

Message from the Guest Editors

Ensuring good fish nutrition is crucial to overcoming these challenges as it can promote better growth and enhance fish flesh quality and resilience. Conversely, nutritional imbalances can cause stress in fish, negatively affecting their physiology and metabolism. While traditional research in fish nutrition has focused on nutrient requirements and metabolism, in recent decades, increased attention has been paid to understanding the underlying biochemical pathways involved in nutrient utilization, stress responses, and physiological adaptations. Omics technologies (transcriptomics, metataxonomics, metagenomics, and epigenomics) have significantly enhanced the understanding of how fish respond to nutrient, dietary, and environmental changes at the molecular level. Thus, this Special Issue invites researchers to submit studies that delve into the topics of fish nutrition, biochemical pathways, and physiology. We also welcome submissions focusing on the application of omics approaches in these areas with the aim of advancing knowledge about the global productive chain involving fish species.

Guest Editors

Dr. Paula Simó-Mirabet

Department of Biology, Faculty of Marine and Environmental Sciences, Instituto Universitario de Investigación Marina (INMAR), Campus de Excelencia Internacional del Mar (CEI·MAR), University of Cádiz, 11519 Puerto Real, Cádiz, Spain

Dr. Fernando Naya-Català

Institute of Aquaculture Torre de la Sal (IATS), Consejo Superior de Investigaciones Científicas (CSIC), 12595 Ribera de Cabanes, Spain

Deadline for manuscript submissions

31 January 2026



International Journal of Molecular Sciences

an Open Access Journal by MDPI

Impact Factor 4.9 CiteScore 9.0 Indexed in PubMed



mdpi.com/si/244680

International Journal of Molecular Sciences Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 ijms@mdpi.com

mdpi.com/journal/ ijms





International Journal of Molecular Sciences

an Open Access Journal by MDPI

Impact Factor 4.9 CiteScore 9.0 Indexed in PubMed





Message from the Editor-in-Chief

The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

Editor-in-Chief

Prof. Dr. Maurizio Battino

Department of Odontostomatologic and Specialized Clinical Sciences, Sez-Biochimica, Faculty of Medicine, Università Politecnica delle Marche, Via Ranieri 65, 60100 Ancona, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, MEDLINE, Embase, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Organic Chemistry)

