

Special Issue

Epigenetic and Transcriptional Regulation in Aquaculture: Immunity, Stress and Disease Prevention

Message from the Guest Editor

Recent advances in epigenetics and transcriptional regulation present new challenges and opportunities for improving health, stress tolerance, and disease resistance in aquaculture species. This Special Issue aims to feature original research articles and review papers that explore the molecular mechanisms underlying gene expression regulation in aquatic organisms in response to environmental and pathogenic stimuli. Topics of interest include DNA methylation, histone modifications, non-coding RNAs, transcription factors, and regulatory networks involved in immunity and stress responses. We are particularly interested in studies that provide mechanistic insights into gene expression regulation, rather than those that focus solely on gene identification or expression profiling without addressing the underlying regulatory processes. We especially welcome contributions on trained immunity—a form of innate immune memory mediated by epigenetic reprogramming—as well as research on transgenerational epigenetic inheritance, RNA-based regulatory systems, and environmentally induced epigenetic responses.

Guest Editor

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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.

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