Special Issue

Functional Gene Analysis and Genomic Technologies in Aquatic Animals

Message from the Guest Editor

Unraveling the genetic architecture and functional basis of economically important traits in aquatic animals is vital for the advancement of genetic improvement and sustainable aquaculture. Recent developments in sequencing, genomic technologies and bioinformatics have greatly enhanced our ability to identify functional genes and elucidate molecular mechanisms underlying traits such as growth, reproduction, stress tolerance, and disease resistance. This Special Issue focuses on recent advances and innovative approaches in functional gene analysis and genomic technologies across marine and freshwater organisms, including fish, shellfish, and other aquatic species. Topics of interest include genome-wide association studies (GWAS), genomic selection, selection signature detection, candidate gene discovery, gene editing, and functional validation, as well as multi-omics data integration. We welcome original research articles, short communications, and comprehensive reviews that provide novel insights into gene function and regulatory mechanisms and that promote the application of advanced genomic technologies to support sustainable and precise aquaculture practices.

Guest Editor

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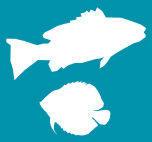

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About the Journal

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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