Special Issue

The Role of Oxidative Stress in Aquaculture

Message from the Guest Editor

With global population expansion, the demand for high-quality protein, especially from aquatic sources, is rising dramatically. Aquatic organisms rely on adequate levels of dissolved oxygen (DO) in their surroundings to support essential physiological metabolism, growth, and survival. Nevertheless, various abiotic and biotic stresses can lead to oxidant stress caused by the accumulation of reactive oxygen species (ROS). This oxidant stress presents a considerable challenge to large-scale aquaculture. The response to oxidant stress may involve the activation of multiple signalling networks. It is crucial to understand the mechanisms of response and regulation of oxidative stress in aquatic organisms, which could provide some valuable insights for the sustainable development of aquaculture. Topics of interest include, but are not limited to, the following:

- Oxidant stresses caused by temperature, salinity and oxygen, etc.
- Comparative study of oxidant stresses under different stress conditions.
- Function of ROS in modulating oxidant stress response.
- Regulation mechanism of oxidant stress.
- Identification of oxidant-stress-related genes and signaling pathways.

Guest Editor

Prof. Dr. Xiaoting Huang

MOE Key Laboratory of Marine Genetics and Breeding, College of Marine Life Sciences, Ocean University of China, Qingdao, China

Deadline for manuscript submissions

closed (30 April 2025)

Antioxidants

an Open Access Journal by MDPI

Impact Factor 6.6
CiteScore 12.4
Indexed in PubMed

mdpi.com/si/207668

Antioxidants
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
antioxidants@mdpi.com

mdpi.com/journal/antioxidants

Antioxidants

an Open Access Journal by MDPI

Impact Factor 6.6
CiteScore 12.4
Indexed in PubMed

mdpi.com/journal/antioxidants

About the Journal

Message from the Editor-in-Chief

It has been recognized in medical sciences that in order to prevent adverse effects of "oxidative stress" a balance exists between prooxidants and antioxidants in living systems. Imbalances are found in a variety of diseases and chronic health situations. Our journal *Antioxidants* serves as an authoritative source of information on current topics of research in the area of oxidative stress and antioxidant defense systems. The future is bright for antioxidant research and since 2012, *Antioxidants* has become a key forum for researchers to bring their findings to the forefront.

Editor-in-Chief

Prof. Dr. Alessandra Napolitano
Department of Chemical Sciences, University of Naples "Federico II", Via Cintia 4, I-80126 Naples, 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, FSTA, PubAg, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Chemistry, Medicinal) / CiteScore - Q1 (Food Science)

MDPI