Special Issue

Bioactive Molecules in the Control of Oxidative Stress and Oxidative Stress-Related Diseases

Message from the Guest Editor

Oxidative stress is implicated in the pathogenesis of many diseases. This Special Issue will explore the potential of bioactive molecules obtained from natural, dietary, and endogenous sources to modulate oxidative stress and its associated pathologies. This Special Issue aims to compile cutting-edge research elucidating the antioxidant, anti-inflammatory, and cytoprotective mechanisms of these biomolecules. Contributions will cover recent findings related to the capabilities of these molecules to regulate free radical generation, influence redox signaling pathways and antioxidant defenses, and mitigate oxidative damage in cells, tissues and organs. Authors are invited to submit original research articles and authoritative reviews detailing the actions, molecular targets, and therapeutic potential of specific bioactive molecules against oxidative stress and oxidative stress-related diseases. By disseminating these discoveries, this Special Issue seeks to highlight bioactive molecules with promise regarding the prevention or deceleration of the progression of pathologies linked to oxidative stress.

Guest Editor

Dr. Jian Yao
Department of Advanced Biomedical Research, University of Yamanashi, Kofu, Japan

Deadline for manuscript submissions

31 May 2026

Biomolecules

an Open Access Journal by MDPI

Impact Factor 4.8
CiteScore 9.2
Indexed in PubMed

mdpi.com/si/193289

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

mdpi.com/journal/biomolecules

Biomolecules

an Open Access Journal by MDPI

Impact Factor 4.8
CiteScore 9.2
Indexed in PubMed

mdpi.com/journal/biomolecules

About the Journal

Message from the Editorial Board

Biomolecules is a multidisciplinary open-access journal that reports on all aspects of research related to biogenic substances, from small molecules to complex polymers. We invite manuscripts of high scientific quality that pertain to the diverse aspects relevant to organic molecules, irrespective of the biological question or methodology. We aim for a competent, fair peer review and rapid publication. Please look at some of the exciting work that has been published in *Biomolecules* so far. We would be delighted to welcome you as one of our authors.

Editors-in-Chief

Prof. Dr. Peter E. Nielsen
Department of Cellular and Molecular Medicine, Faculty of Health and Medical Sciences, University of Copenhagen, Blegdamsvej 3C, DK-2200 Copenhagen, Denmark

Prof. Dr. Lukasz Kurgan
Department of Computer Science, Virginia Commonwealth University, Richmond, VA 23284, USA

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, MEDLINE, PMC, Embase, CAPlus / SciFinder, and other databases.

Journal Rank:

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

MDPI