

Special Issue

Molecular, Cellular Mechanism of Oxidative Stress in Physiological and Pathophysiological Conditions

Message from the Guest Editor

Living organisms are constantly exposed to various environmental and biological stressors, including infection, inflammation, and chronic and civilization diseases. Oxidative stress and a diminished content of endogenous antioxidants in the body increase the vulnerability of tissues and cellular components to reactive oxygen species. The balance between antioxidant and prooxidant compounds at a molecular and cellular level represents a crucial determinant of various physiological processes. The maintenance of this balance is the primary aim of the integrated antioxidant system constructed within the living body. Under stress conditions, the antioxidant defense comprises the cumulative activity of enzymatic and non-enzymatic antioxidant systems. Understanding the physiological processes behind oxidative stress in pathophysiological conditions may facilitate the identification of individuals at risk of poor health or adverse welfare outcomes. This Special Issue aims to collect original articles and systematic reviews addressing various aspects of the modulation of oxidative stress in living organisms.

Guest Editor

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Deadline for manuscript submissions

closed (20 April 2025)



International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



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*International Journal of
Molecular Sciences*
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