

Special Issue

Redox Regulation in Cardiovascular Diseases

Message from the Guest Editors

Cardiovascular diseases (CVDs) remain the main cause of death worldwide. While numerous factors facilitate the onset of CVD, oxidative stress, caused by an imbalance between oxidants and antioxidants, is a major contributor. While oxygen gas is used in vascular cells to carry out their physiological functions, free radicals, including reactive oxygen species (ROS) and reactive nitrogen species (RNS), are generated either as side products or as important regulators themselves. These chemically highly reactive molecules, if left unrestricted, have the potential to modify proteins, lipids, and nucleic acids, which cause oxidative stress and cell damage. Therefore, oxidants reach physiological equilibrium with various antioxidant enzymes and molecules in a healthy body. However, a major challenge for vascular cells in maintaining the redox balance is that they often face a constantly changing surrounding environment, which requires them to adapt to it promptly.

This Special Issue will focus on the mechanisms of redox regulation during CVD development and discuss potential strategies for the re-establishment of redox balance.

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Deadline for manuscript submissions

31 December 2025



Antioxidants

an Open Access Journal
by MDPI

Impact Factor 6.6
CiteScore 12.4
Indexed in PubMed



mdpi.com/si/204248

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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.

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