Special Issue

Vascular and Cardiac Dysfunction in Insulin-Resistant States: The Role of Oxidative Stress

Message from the Guest Editors

Recent evidence suggests that metabolic impairment is associated with reduced mitochondrial ROS production in diabetes and obesity linked to altered activity of the energy sensor AMPK. On the other hand, activation of the endoplasmic reticulum (ER) stress response is also involved in the pathogenesis of metabolic disorders, and cross-talk between ER and mitochondria contributes to oxidative stress underlying endothelial and vascular dysfunction. Metabolic impairment reduces the activity of antioxidant systems such as nuclear factor erythroid 2-like 2 (Nrf2) and activates the redox-sensitive transcription factor NF□B signaling pathway that regulates the expression of inflammatory genes in cardiomyocytes as well as endothelial and vascular smooth muscle cells, thus leading to low-grade chronic inflammation associated with endothelial dysfunction and the development of atherosclerotic cardiovascular disease. The aim of this Special Issue is to further elucidate the specific mechanisms and signaling pathways interrelating oxidative stress and inflammation in the pathogenesis of insulin-resistance-associated cardiovascular complications.

Guest Editors

Prof. Dr. Dolores Prieto

Departamento de Fisiología, Facultad de Farmacia, Universidad Complutense, 28040 Madrid, Spain

Prof. Dr. Maria Carmen Martínez

SOPAM, U1063, INSERM, UNIV Angers, SFR ICAT, F-49800 Angers, France

Deadline for manuscript submissions

closed (20 November 2022)

Antioxidants

an Open Access Journal by MDPI

Impact Factor 6.6
CiteScore 12.4
Indexed in PubMed

mdpi.com/si/92021

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)