Special Issue

Synthetic Compounds: Antioxidant and AntiInflammatory Activities, Biomedical Properties and Formulations

Message from the Guest Editors

Whether of natural or synthetic origin, antioxidants can protect cells and tissues from free-radical-mediated damage. Antioxidants can minimize food loss, act as preservatives in drug and herbal formulations, or act as health-promoting compounds. Indeed, oxidation and inflammation are strictly connected by means of pleiotropic and redundant pathways. Antioxidants can tackle inflammation-related diseases by limiting excessive cytokine-mediated inflammatory responses. In this Special Issue, we will focus on antioxidant design, synthesis, purification, characterization, mechanisms of action, and biological and toxicological activities through in vitro, ex vivo, and in vivo investigations into synthetic antioxidants and anti-inflammatory agents.

Nanotechnology-based formulations and delivery systems for these compounds, to improve bioavailability and reduce toxicity or chemical instability, will be also considered. Finally, updates on pharmacological effects, therapeutic properties, and future options in these compounds are also welcome. New protocols to assess the efficacy of these compounds will, furthermore, be considered.

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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.

Editor-in-Chief

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