Special Issue

Methionine Sulfoxide Reductases and Oxidative Damage

Message from the Guest Editors

Oxidative damage is one of the hallmarks of aging and age-related diseases. Oxidative damage occurs due to an altered balance between reactive oxygen species (ROS) production and the level of the cellular protective mechanisms. One of the cellular repair mechanisms that protects oxidative damage to proteins is the methionine sulfoxide reductase system (Msr). Bacterial and animal cells lacking MsrA, and MsrA knockout mice, have been shown to be more sensitive to oxidative stress. Conversely, over-expression of MsrA renders cells more resistant to oxidative stress and MsrA overexpression in transgenic *Drosophila*, results in an increase in life span of the animals. The goal of this special issue is to publish original research and review articles focusing on (1) the possible role of methionine oxidation and the Msr system in age related diseases, (2) activators of the Msr enzymes, (3) the regulation of protein function by methionine oxidation and reduction, (4) Msr as a target for cancer therapy and (5) the role of Msr system in pathogen virulence.

Guest Editors

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Deadline for manuscript submissions

closed (31 August 2018)

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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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