



Zinc and Oxidative Stress

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Message from the Guest Editor

Zinc is an important mineral supplement and has been recently recommended for patients infected with COVID-19 as a booster of the immune response. Zinc can be found in the active site of many enzymes and is also a major component of one class of transcription factors; however, zinc may target and inactivate the enzymes and proteins that contain redox active cysteine or selenocysteine residues. Such enzymes and proteins are involved in the antioxidant defense; hence, free zinc may exacerbate the oxidative damage to the cell. Whether zinc released from metallothioneines during oxidative stress can directly trigger the antioxidant program executed by Nrf2 - remains an open question. The molecular mechanisms behind the panoply of zinc effects still await their resolution.

For this Special Issue, we invite researchers to provide original research articles that report on the mechanism of zinc interaction with various cellular targets, such as individual proteins and organelles, and its potential for the treatment of conditions linked to oxidative stress. The interplay between calcium/zinc and iron/zinc in various scenarios of oxidative damage is of particular interest.





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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.

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