



Antioxidants in Ferroptosis and Human Diseases

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Message from the Guest Editor

This Special Issue delves into the intricate interplay between antioxidants and ferroptosis, a recently discovered form of regulated cell death characterized by the iron-dependent accumulation of lipid peroxides. Oxidative stress and lipid peroxidation are key drivers of various human diseases, including neurodegenerative disorders, cancer, and cardiovascular conditions. The emerging field of ferroptosis highlights the importance of maintaining a delicate balance between pro-oxidant and antioxidant systems.

Recent studies have demonstrated the potential of antioxidant interventions in preventing or alleviating ferroptosis-related pathologies. By inhibiting lipid peroxidation and modulating iron metabolism, antioxidants can mitigate ferroptosis-induced damage and preserve cellular homeostasis.

This Special Issue aims to provide a comprehensive overview of the mechanisms underlying the involvement of antioxidants in ferroptosis and their impact on various human diseases.





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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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