Special Issue

Antioxidant Systems, Transcription Factors and Non-Coding RNAs

Message from the Guest Editor

Antioxidant systems protect against perturbation of the intracellular redox status due to high levels of reactive oxygen/nitrogen species (ROS/RNS). Accordingly, dysfunction in these systems can trigger oxidative damage and foster diseases like neurodegeneration, senescence/aging, cancer, and different types of cardiac and kidney disorders. ROS/RNS-sensitive transcription factors closely associate with defense programs, since they can engage downstream enzymatic and non-enzymatic antioxidant pathways to restore redox balance. These defense processes are often dynamically interlinked with post-transcriptional regulatory mechanisms mediated by non-coding RNAs, mainly microRNAs, long-non-coding RNAs, and circular RNAs, also involved in epigenetic regulatory events. Therefore, the interplay between transcription factors and non-coding RNAs is found to be important within the antioxidant response, and ongoing research is focused on these redox regulators.

This Special Issue aims to collect articles and reviews defining novel non-coding RNA-mediated regulatory mechanisms that influence the activities of redox transcription factors and their importance in the antioxidant defense network.

Guest Editor

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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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