



Antioxidants in Mitochondrial Dysfunction Disease

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Message from the Guest Editors

We are leading the following Special Issue entitled “Antioxidants in Mitochondrial Dysfunction Disease” in the journal *Antioxidants*.

Mitochondria act as master regulators inside our cell. While influencing the intracellular availability of high-energy molecules, such as ATP, their status orchestrates the function of almost every biochemical and signaling process, either directly or indirectly. Antioxidants are supposed to act by clearing out cells and biological fluids from harmful reactive oxygen species, reactive nitrogen species and pro-oxidant molecules such as trimethylamine oxide. However, some of them have been shown to directly promote oxidative phosphorylation and mitochondrial ATP production, fostering electron transport along the inner mitochondrial membrane as well as H⁺-pump activity. Some others indirectly affect mitochondrial activity by promoting the catabolic reactions necessary to fulfill mitochondrial requirements for intermediates.

Contributions to this Special Issue may cover all research aspects related to endogenous and exogenous antioxidants endowed with either direct or indirect mitochondrial promoting activity.





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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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