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Oxidative Stress and Exercise

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Message from the Guest Editors

Exercise training has a plethora of health benefits, such as a decrease in risk to neurovascular disease, some cancers, and type 2 diabetes. Whereas regular moderate-intensity exercise activates important cell adaptive properties, sporadic and strenuous bouts of exercise may induce oxidative stress due to an augmented production of reactive metabolites of oxygen (ROS) and nitrogen free radical species (RNS). Exercise-induced free radical formation may impair cell function by oxidatively modifying nucleic acids, where DNA damage and insufficient repair may lead to genomic instability. Antioxidant supplementation can minimise exercise-induced oxidative damage to susceptible macromolecules.

In this Special Issue of *Oxidative Stress and Exercise*, we invite high-quality original manuscripts and review articles examining all aspects of exercise-induced oxidative stress, taking into consideration the basic mechanisms, consequences and function of ROS production, and whether antioxidants may either support or hinder these responses. Research integrating genetics and exercise-induced oxidative stress is of particular interest.



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Special Issue



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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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