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Oxidative Stress during Physical Activity

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Message from the Guest Editor

Emerging research highlights the pivotal role of oxidative stress, particularly reactive oxygen species (ROS), in mediating the effects of physical activity. ROS, integral to cellular signaling and homeostasis, are byproducts of metabolism, the levels of which are influenced by exercise. While they are essential in moderation, excessive ROS production, notably oxygen radicals, can disrupt redox balance, leading to cellular damage. Such oxidative stress is implicated in various pathological conditions, underscoring the delicate balance necessary for optimal health outcomes.

This Special Issue aims to gather original research and reviews that delve into the interplay between redox balance and physical activity in both physiological adaptation and pathological states. While human studies are the primary focus, contributions involving animal models will also be considered, with the aim of expanding our understanding across different biological contexts.

We invite researchers to contribute their insights to further unravel the intricate relationship between oxidative stress and physical activity, ultimately advancing our knowledge, so that we can enhance human health and performance.



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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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