Special Issue

Adaptive Responses to Oxidative Stress: Insights from Molecular, Cellular, and Animal Studies

Message from the Guest Editors

Oxidative stress, characterized by an overproduction of reactive oxygen species (ROS), poses a significant threat to cellular integrity by causing damage to proteins, lipids, and DNA. Organisms across the biological spectrum have evolved adaptive responses to counteract these effects, ensuring survival in environments in which oxidative stress is prevalent. Animal studies can provide valuable insights into these adaptive mechanisms, revealing that species exposed to chronic oxidative stress exhibit enhanced antioxidant capacities and stress tolerance. Understanding these adaptive responses not only sheds light on the resilience of organisms in challenging environments but also informs potential therapeutic approaches that aim to ameliorate oxidative stress-related diseases. This Special Issue aims to deepen our understanding of the intricate adaptations to oxidative stress at the molecular, cellular, and organism levels. We welcome the submission of original research articles, reviews, and meta-analyses that explore various aspects of oxidative stress adaptations, with a special focus on aquatic organisms.

Guest Editors

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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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