Special Issue

ROS Levels and Thioredoxin Reductases

Message from the Guest Editors

The interplay between Reactive Oxygen Species (ROS) and the Thioredoxin (Trx) system, critically regulated by Thioredoxin Reductases (TrxR), stands at the forefront of understanding pathogenesis and developing novel therapeutics for cancer and inflammatory diseases. Dysregulation of ROS signalling and TrxR activity is a mark of tumour progression, metastasis, therapy resistance, and chronic inflammation. We seek contributions exploring:

Novel mechanisms of ROS generation
Noval Antioxidants scavenging impacts tumorigenesis or inflammation
The role of TrxR isoforms in cancer cell survival, proliferation, and drug resistance
Development and evaluation of novel TrxR inhibitors as anti-cancer or anti-inflammatory agents
ROS/TrxR signalling crosstalk (e.g., with Nrf2, NF-□B) in disease contexts
Bioactive materials inducing PCDs.such as apoptosis, pyroptosis, ferroptosis and disulfidptosis, etc.
Targeting the Trx system for overcoming therapy resistance towards clinic drugs
Targeting the Trx system for resensitizing cancer cells towards any inducible cell death
Preclinical and clinical studies elucidating TrxR as a biomarker or therapeutic target.

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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