



Involvement of Oxidative Stress Signalling Pathways in Cell Death

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Message from the Guest Editors

Reactive oxygen species (ROS) play a key role as a second messenger by modulating multiple signaling pathways under physiological and pathological conditions. ROS are constantly produced in aerobic cells or are generated during a number of processes. Basal levels of ROS act as signaling molecules to activate cell proliferation, survival, apoptosis, differentiation, immune responses, motility, and other pathways. High ROS levels can cause an imbalance of prooxidants and antioxidant systems in the body and can induce damage to DNA, protein, and lipids which, if unrepaired, lead to mutations and promote carcinogenesis or a deregulated cell death.

The goal of this Special Issue is to publish the latest research advancements in the knowledge of cell death signaling pathways correlated with oxidative stress, which could be crucial for identifying new molecular targets involved in the occurrence and development of a variety of diseases such as cancer, arteriosclerosis, osteoarthritis, osteoporosis and neurodegenerative disorders, in which a crosstalk between ROS and cell death has been described, even if the molecular mechanisms are not fully understood.





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