



Implication of Oxidative Stress in Promoting Cell Senescence and Associated Pathologies

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Message from the Guest Editors

It is well known that exposure of several cell types to oxidative stress and reactive oxygen species (ROS) causes a wide range of effects. These effects range from modification of signal transduction pathways and gene expression to an increased rate of cell proliferation and finally cell death either caused by apoptosis or necrosis. In the case of permanent inhibition of their proliferation, the cells remain alive but both their phenotype and functional state change dramatically, a condition usually called “cell senescence”.

The presence of increased numbers of senescent cells in tissues is associated with ageing, as well as with several age-associated pathologies such as tissue fibrosis, autoimmune diseases and cancer, among others. Additional knowledge about the molecular mechanisms that underline these interrelationships can lead to new therapeutic approaches for cell senescence-induced ageing and related pathological conditions.

For this Special Issue, we invite researchers to submit original works or review articles related to the implications of oxidative stress in the development of cell senescence, as well as age-related pathologies.





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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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