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Molecular Pathology and Biomarkers of Neurodegenerative Diseases

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Message from the Guest Editors

Many abiotic stresses induce the overproduction of reactive oxygen species (ROS) in humans. Being highly reactive and toxic species, they cause damage to DNA, proteins, carbohydrates and lipids, thus leading to oxidative stress. The increased production of reactive oxygen species and oxidative stress has been implicated in the pathogenesis of numerous inflammatory and neurodegenerative pathological conditions. The endogenous antioxidant response pathway protects cells from oxidative stress by increasing the expression of cytoprotective enzymes, and is regulated by the transcription factor NRF2. In addition to regulating the expression of antioxidant genes, NRF2 has also been shown to exert anti-inflammatory effects and modulate both mitochondrial function and biogenesis.

This Special Issue will focus on the role of NRF2 as a promising therapeutic target for inflammatory and neurodegenerative diseases. In particular, it will be aimed at the discovery of specific NRF2 activators that can be used as therapeutic agents. The Special Issue will feature original *in vivo* and *in vitro* reviews and studies providing evidence of the beneficial effects of antioxidant factors.



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Special Issue



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Message from the Editor-in-Chief

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