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Oxidative Stress and Neuroinflammation in Neurological and Neurodegenerative Disorders

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Deadline for manuscript submissions:

closed (20 September 2022)

Message from the Guest Editors

Age-related increases in oxidative stress and neuroinflammation are common hallmarks of chronic neurodegenerative disorders, such as Alzheimer’s (AD) and Parkinson’s (PD) diseases. Accumulation of reactive oxygen species (ROS) is a natural consequence of the neuronal oxidative metabolism and may overwhelm the antioxidant defenses, thus leading to oxidation of cellular components, mitochondrial dysfunction, redox dysregulation, and alteration of energy metabolism. On the other hand, neurodegeneration is characterized by neuroinflammation, disruption of astroglial function, and mechanisms of maladaptive plasticity. Moreover, as part of the blood–brain barrier, astrocytes play an essential role in neurovascular coupling and neuronal metabolism.

We invite you to submit your contribution as an original research or a review article to this Special Issue, which aims to collect current knowledge concerning mechanisms of oxidative stress and neuroinflammation and their impact on neuronal and glial function in aging and neurodegenerative disorders.



mdpi.com/si/71950

Special Issue



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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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