Special Issue

Redox Metals and Catecholamines in Neurodegenerative Diseases

Message from the Guest Editors

Alteration in metal levels is detected in different pathophysiological mechanisms associated with neurodegenerative disorders, including Alzheimer's disease (AD), Parkinson's disease (PD) and multiple sclerosis (MS). The imbalance of some essential metals compromises structures and functions of several proteins and enzymes, promoting neurotoxicity, mitochondrial dysregulation and cell death. Another pathological mechanism usually reviewed as pivotal in neurodegeneration involves catecholamine oxidation-derived neurodamage. Catecholamines such as dopamine, epinephrine and norepinephrine are reactive molecules prone to undergo dioxygen-dependent self-oxidation and metal-catalyzed oxidation. In this Special Issue, we aims to collect original research and review articles focusing on the following topics.

- Catecholamine reactivity and interplay with redox active metals
- Catecholamine oxidative products and metals as neuronal biomarkers
- Catecholamine-mediated modification of proteins and peptides
- Neuroinflammation promoted by trace metals
- Recent advances in drug discovery based on metal and catecholamine-related pathways.

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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.

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