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Protein Oxidative Modification in Brain function, Brain Ageing and Neurological Diseases

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Message from the Guest Editors

Redox signalling plays an important role in the homeostatic control of several molecular pathways and in cell function, particularly changes in the redox status of Cysteine and other amino acid residues of proteins, which are extremely susceptible to reversible and irreversible oxidation by RONS. These changes can lead to redox-post-translational modifications (redox-PTMs) in proteins, which can directly affect protein structure, activity and function, ultimately impacting a multitude of biological functions. Mitochondrial dysfunction and excessive RONS levels can give rise to oxidative and nitrosative stresses, and aberrant redox-PTMs. Oxidative and nitrosative stresses and aberrant redox-PTMs are well-established contributors to a plethora of diseases, however, the underlying mechanisms are not fully understood. In this Special Issue, we invite original research articles and review articles related to the roles of the redox-PTMs-mediated signalling in modulating protein structure and activity, and brain function in health, ageing and neurological conditions.



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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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