



## The Role of Oxidative Stress in Neurodegenerative Diseases

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### Message from the Guest Editor

Dear Colleagues,

Oxidative stress is known to play an important role in the pathogenesis of many diseases. The neurodegenerative diseases include diseases such as Alzheimer's disease, Parkinson's disease, etc.

Singlet oxygen is an excited state of oxygen  $O_2$  which readily oxidizes cellular components such as lipids, proteins, nucleic acids and others. The energy needed for the excitation of oxygen from the ground to the first excited state  $1\Delta_g$ , indicating singlet oxygen, is equal to  $92 \text{ kJ mol}^{-1}$ . For proteinaceous diseases, the calculated  $\Delta G^\ddagger$  values vary between  $92.8$  and  $127 \text{ kJ mol}^{-1}$  at  $310 \text{ K}$ . The similarity of the  $\Delta G^\ddagger$  values is an indication that a common mechanism may be taking place in the above disorders. We may attribute this common mechanism to the (same) role of the oxidative stress and specifically to that of singlet oxygen ( $1\Delta_g$ ).

This Special Issue aims to present the latest research regarding oxidative stress and neurodegenerative diseases. Both original research articles and reviews are welcomed.





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