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## Redox Effects of Molecular Hydrogen and Its Potential for Preventive and Therapeutic Applications

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### Message from the Guest Editors

Molecular hydrogen serves as a scavenger to modify ROS and maintain metabolic oxidation–reduction reaction in various biomedical areas. It can also neutralize and convert highly active oxidants such as hydroxyl radical and peroxynitrite into water. Thus, the redox effect of molecular hydrogen is crucial to find preventive and therapeutic applications. Recently, molecular hydrogen has begun to be applied to various diseases based on the academic mechanism of regulating the immune system and removing free radicals. Our goal here is to determine how to improve the ability to use molecular hydrogen in oxidative stress using various enzymes in cells, animals, or humans. This issue could help with the development of new therapies and biomarkers with underlying molecular hydrogen mechanisms. It is expected to contribute to the use of molecular hydrogen in health promotion through the report of excellent research results related to molecular hydrogen.



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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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