Special Issue

Oxidative Stress and NRF2 in Diabetes

Message from the Guest Editor

Diabetes is a chronic metabolic disorder characterized by elevated blood glucose levels, which may lead to severe complications. One of the critical pathological mechanisms in diabetes is oxidative stress, which arises from an imbalance between the production of reactive oxygen species (ROS) and the body's ability to detoxify these reactive intermediates through antioxidants. NRF2 is a transcription factor that regulates the expression of antioxidant proteins that protect against oxidative damage. In the context of diabetes, activating the NRF2 pathway could potentially restore redox balance, assist beta cell repair, improve insulin sensitivity, and reduce the incidence of complications. The Special Issue aims to bring together research and review articles that delve into the mechanisms by which NRF2 modulates oxidative stress in diabetes and explore therapeutic strategies targeting NRF2 to ameliorate diabetes-related oxidative damage. It will highlight advances in the understanding of how NRF2 can be leveraged to develop novel treatments that improve diabetic outcomes by enhancing the body's antioxidant defenses.

Guest Editor

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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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