

Special Issue on **Natural Products for Combatting Hyperglycemia-Induced Oxidative Stress**

CALL FOR PAPERS

Although reactive oxygen species (ROS) can be beneficial to the immune system in attacking and killing pathogens or in the prevention of aging, at other times oxidative stress caused by ROS can damage cells. A substantial body of evidence points to a main role of reactive oxygen species/oxidative stress in the development and progression of diabetic complications leading to tissue damage. Research on understanding the role of antioxidants in relation to this is fundamental to the comprehension of ameliorating the treatment of diabetes mellitus and its disabling disorders which threatens the health of over 400 million people worldwide. This condition is fast becoming a major health problem in poorer countries. Between 1980 and 2014, this increase of diabetes was particularly significant in many low- and middle-income countries.

Research strategies on small molecule natural products isolated from higher and lower plants have increasingly been identified for their potential for remediating oxidative stress. Thus, this issue is dedicated to understanding the use and importance of natural phytochemicals, especially those of plant origin, for providing more effective and alternative remedies for combatting diabetes. Such existing antidiabetic lead compounds and remedies are well grounded in the traditional medicinal systems, which have a long history spanning over millennia.

We solicit high quality research articles as well as review articles focused on natural products with the ability and the potential to resist diabetic oxidative stress and related disabling disorders.

Potential topics include but are not limited to the following:

- ▶ Recent developments in hyperglycemia-induced oxidative stress and related disabling disorders and potential remedies
- ▶ *In vitro*, *in vivo*, and clinical evaluation of the antioxidant activity of plants and natural products in relation to diabetes
- ▶ Elucidation of the biochemical pathways and the mechanisms of action of natural products to combat hyperglycemia-induced oxidative stress
- ▶ Novel strategies and models for evaluation of the antioxidant activity and capacity of natural products under hyperglycemic conditions
- ▶ Commentaries and accounts of identification of antioxidant natural products isolated from medicinal plants showing antidiabetic activity
- ▶ Assessments and reports on the beneficial or harmful effects of natural products under diabetic conditions

Authors can submit their manuscripts through the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/omcl/npch/>.

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