Special Issue

Directed Lipid Oxygenation as an Antioxidant System

Message from the Guest Editor

Molecular oxygen is essential for all life through aerobic respiration. It produces energy through the generation of ATP. While molecular oxygen is functionally important for cellular processes in the body, its metabolites can be either negative (as free radicals or ROS) on one hand, or positive on the other hand, producing oxygenated products which act as biologically active substances. Though there are many enzymatic reactions and vitamins that control ROS, this Special Issue (SI) proposes to address the positive actions of peroxidation/oxygenation of lipids generating biological pathways through the LOX/COX enzyme systems. The SI primarily addresses the actions of new or previously (un)reported oxygenated lipid metabolites from polyunsaturated fatty acids (PUFAs) from their free form or when esterified to phospholipids (PLs) including their synthesis (chemical and biological), biological actions (pharmacology), disease (pathology), therapeutics (actual or potential), and genetics. Since peroxidation of PUFA occurs both in free form and when attached to phospholipids, approaches dealing with oxygenated PL metabolites and their release by phospholipases shall also be entertained.

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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