

Special Issue on **Role of Natural Antioxidants from Functional Foods in Neurodegenerative and Metabolic Disorders**

CALL FOR PAPERS

The imbalance in formation of reactive oxygen species (ROS) is related to oxidative stress. Excessive ROS generated are involved in cellular proteins, lipids, and nucleic acids leading to cellular dysfunction including loss of energy metabolism, altered cell signalling and cell cycle control, genetic mutations, altered cellular transport mechanisms and overall decreased biological activity, immune activation, and inflammation.

Oxidative stress leading to free radical attack on neural cells contributes calamitous role in neurodegeneration. Though oxygen is imperative for life, imbalanced metabolism and excess of ROS generation lead to a range of disorders such as Alzheimer's disease, Parkinson's disease, aging, and many other neural disorders. Additionally, excess of ROS production is central to a variety of metabolic pathologies such as diabetes, obesity, aging, and other secondary complications associated with them. Diet is major source of antioxidants, and medicinal plants are catching attention to be commercial source of antioxidants.

Natural sources of antioxidant compounds are a wide range of secondary metabolites including carotenoids, flavonoids, anthocyanins, tannins, and others with great higher antioxidant capacity. Therefore, plant-based foods that contain natural sources of antioxidant compounds are a potential strategy to minimize oxidative stress related diseases.

Potential topics include but are not limited to the following:

- ▶ *In vitro* and *in vivo* release profile of antioxidants from functional foods
- ▶ Evaluation of functional foods on models of neurodegenerative or metabolic diseases induced by oxidative stress
- ▶ Mechanism of action of functional foods on neurodegenerative or metabolic diseases
- ▶ Protein expression induced by natural antioxidants from functional foods
- ▶ Evaluation of toxicity/side effects of functional foods
- ▶ Development of novel (e.g., nanostructured systems) functional food products
- ▶ Nonclinical and clinical studies of functional foods

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

Papers are published upon acceptance, regardless of the Special Issue publication date.

Lead Guest Editor

José C. T. Carvalho, Amapá Federal University, Amapá, Brazil
farmacos@unifap.br

Guest Editors

Caio P. Fernandes, Amapá Federal University, Amapá, Brazil
caio_pfernandes@yahoo.com.br

Julio B. Daleprane, Rio de Janeiro State University, Rio de Janeiro, Brazil
juliobd@gmail.com

Maria S. Alves, Juiz de Fora Federal University, Minas Gerais, Brazil
silvana.alves@ufff.edu.br

Didier Stien, Sorbonne Universités, Paris, France
didier.stien@cnrs.fr

N. P. Dhammika Nanayakkara, University of Mississippi, Oxford, USA
dhammika@olemiss.edu

Submission Deadline

Friday, 24 November 2017

Publication Date

April 2018