

Special Issue on

Dietary Agents Modulating the Antioxidant/Prooxidant Balance: Implications in Oxidative Medicine and Cellular Longevity

CALL FOR PAPERS

Chronic disorders like diabetes mellitus, cancer, obesity, and cardiovascular diseases have a key phenomenon in common oxidative stress. Oxidative stress is an imbalance between the production of reactive oxygen species (ROS) and cellular antioxidant defense. A diet rich in antioxidants is thought to have preventive effects, and therefore there has been a major focus on the antioxidant properties of natural products. Through study of the absorption and metabolism of these ingested compounds, new evidence has shown that they and their metabolites modulate a great variety of cellular responses that can have therapeutic consequences. Depending on the cellular antioxidant machinery involved, the mechanisms involved can vary from antioxidant to prooxidant.

Even though a sufficient amount of antioxidants for disease prevention can be taken from a balanced diet, some people regularly take nutritive supplements. Depending on the environment, these nutritive molecules can act either as antioxidants (electron donors) or as prooxidants (electron acceptors), and there is the possibility that high doses of antioxidants supplementation can give unwanted and unexpected harmful results such as increasing the rate of oxidation processes at the cellular level.

Within this context we invite investigators to contribute original research articles as well as review articles that will stimulate continuing efforts to leverage the antioxidant/prooxidant effects at cellular level *in vitro* and *in vivo*, to improve accuracy of dosing for the best antioxidant preventive and therapeutic effects, to discover the molecular targets that modulate the antioxidant/prooxidant changes, to develop strategies to counteract the oxidative harmful conditions, and also to evaluate the outcomes of a diet rich in antioxidants.

Potential topics include but are not limited to the following:

- ▶ Recent development in revealing the antioxidant/prooxidant activity of dietary components
- ▶ Advanced research in proteomics, transcriptomics, and metabolomics in correlation with antioxidant/prooxidant effects
- ▶ The latest technologies for evaluating the effects of dietary antioxidants at clinical and pharmacological level and measuring outcomes with biomarkers
- ▶ The analysis of the bioavailability of bioactive components of the diet

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

Lead Guest Editor

Veronica S. Chedea, National Institute for Research and Development in Animal Biology and Nutrition, Ilfov, Romania
chedea.veronica@ibna.ro

Guest Editors

Simona I. Vicaș, Universitatea din Oradea, Oradea, Romania
svicas@uoradea.ro

Mitsuo Jisaka, Shimane University, Matsue, Japan
jisaka@life.shimane-u.ac.jp

Giuseppe Valacchi, University of Ferrara, Ferrara, Italy
vlcgp@unife.it

Manuscript Due

Friday, 9 June 2017

First Round of Reviews

Friday, 1 September 2017

Publication Date

Friday, 27 October 2017