

Special Issue on

Effect of Nutraceuticals and Pharmaceuticals on Oxidative Stress in Vascular Aging and Cardiovascular Disease

CALL FOR PAPERS

Aging represents one of the most potent independent predictors of future cardiovascular events. Increased arterial stiffness, impaired vascular endothelial function, and impairment of oxidative balance are the most important clinical events that occur with age, both in humans and in animals, contributing to the development of hypertension, left ventricular remodeling, coronary artery diseases, atherosclerotic vascular diseases, congestive heart failure, and cardiovascular events such as myocardial infarction. These processes, due in large part to a reduction in endothelium-derived nitric oxide bioavailability, increased production of vasoconstrictors, increased reactive oxygen species (ROS), and a dysregulation of several intracellular pathways, have been significantly reduced by a range of pharmacological approaches. Although many drugs are effective, the molecular mechanisms and long-term side effects are still unknown and are currently an area of active research. In the last decade, an increasing number of natural compounds have been shown to be efficacious in preventative medicine or in the treatment of cardiovascular disease (CVD). An increasing number of studies have highlighted the protective effects of nutraceuticals on the cardiovascular system, but the molecular signaling remains to be elucidated.

Consistent with this idea, we invite investigators to contribute original research as well as review articles on nutraceuticals as well as pharmaceuticals able to treat or prevent the development of CVD through the modulation of oxidative stress-dependent signalling pathways. The contributions should be focused on new mechanisms, new molecules, and new approaches to reduce cardiovascular risk.

Potential topics include but are not limited to the following:

- ▶ In vitro and in vivo studies on the role of oxidative stress in vascular aging: nutraceuticals and drugs, care, and prevention
- ▶ Nutraceuticals and pharmaceuticals able to modulate oxidative stress and antioxidant machinery in aging and CVD
- ▶ Nutraceuticals and drugs in CVD: free radicals and oxidative damage, imbalance of endothelium-derived nitric oxide bioavailability, and vasoconstrictors/vasodilators
- ▶ Inflammation, oxidative stress, and CVD: novel mechanisms and therapeutic strategies
- ▶ ROS imbalance in aging and CVD: new protective mechanisms of action of natural compounds and drugs
- ▶ Nutraceuticals and drugs: what is the best to treat and prevent CVD and vascular aging?

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

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

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