

Special Issue on **NADPH Oxidase, ROS, and NO in Cardiovascular Diseases**

CALL FOR PAPERS

Cardiovascular diseases are major causes of morbidity and mortality. They also represent a major economic burden to the high rehospitalization rate of these patients. From a pathophysiological stand point, the pathogenesis of these diseases is multifactorial and quite complex. However, a common denominator of cardiac is oxidative stress and inflammation.

In particular, oxidative stress is believed to play a crucial role in the early stages of initiation and progression of atherosclerosis. Oxidative stress occurs in the presence of an imbalance between the production of reactive oxygen (or nitrogen) species (ROS and RNS, respectively) and the extent and functionality of enzymatic and nonenzymatic antioxidant defenses. This imbalance leads to an altered redox status that contributes to the onset and/or progression of cardiovascular disorders. Several ROS-generating enzymes, such as xanthine oxidase, myeloperoxidase, monoamine oxidases, and nicotinamide adenine dinucleotide phosphate (NADPH) oxidase may be responsible for increased oxidative stress, implying endothelial dysfunction and greater risk of atherosclerosis. In particular, NADPH oxidase is implicated in several processes including many chronic diseases such as peripheral arterial disease, metabolic syndrome, atrial fibrillation, diabetes, hypertension, and so forth. These phenomena begin in childhood and continue until an elderly age, determining a higher risk to develop cardiovascular complications.

We invite authors to submit original research articles (in vitro, animal, and/or clinical studies), as well as review articles, that address the issue of the role of oxidative stress in cardiovascular and respiratory diseases.

Potential topics include but are not limited to the following:

- ▶ Endothelial dysfunction in cardiovascular and respiratory disease
- ▶ NADPH oxidase and other sources of ROS/RNS in cardiovascular disease
- ▶ Oxidative stress (nitrosative and other markers) and inflammation in cardiovascular diseases
- ▶ Effect of diet and nutraceutical approach on oxidative stress in cardiovascular diseases
- ▶ Interventional studies in human/animal with or at risk of cardiovascular diseases

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

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

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