

Special Issue on
**New Frontiers in Assessing Cardiovascular Consequences
of Oxidative Stress: From Bench to Bedside**

CALL FOR PAPERS

The cardiovascular disease is one of the major healthcare problems of the world population and understanding its determinants is essential for designing effective interventions. Therefore, explaining pathophysiological mechanisms allows defining novel pharmacological targets as well as better markers of damage to cardiovascular system, which could reflect the dynamics of changes in homeostasis.

All cells are capable of producing reactive oxygen species (ROS) and some evidence suggests that ROS produced by cardiac myocytes and vascular smooth muscle cells play an important role in the development and progression of cardiovascular disease.

Endothelium plays a pivotal role in the maintenance of appropriate vascular tone and structure, and all the disturbances initiating the onset and promoting the progression of atherosclerosis come from these cells. The mechanisms underlying decreased vasodilative action include, for example, decreased nitric oxide bioavailability, changes in the arachidonic acid metabolites biotransformation, and activation of the renin-angiotensin-aldosterone system (RAAS).

We invite authors to contribute original research articles as well as review articles that will illustrate and stimulate the continuing effort to understand the molecular mechanisms of cardiorespiratory failure induced by oxidative stress. We invite authors to submit the papers presenting studies which define precisely novel therapeutic targets and allow designing novel diagnostic and therapeutic conceptions, supporting significantly the ones currently recommended in clinical practice.

Potential topics include but are not limited to the following:

- ▶ Novel methods for assessment of endothelial function phenotype with respect to physiology and pathology
- ▶ Imaging diagnostics in cardiovascular disease: early diagnosis of consequences of oxidative stress
- ▶ Endothelial and platelet multiomics in cardiovascular pathophysiology
- ▶ The PRMT-ADMA/DMA-DDAH axis in regulating the nitric oxide metabolism
- ▶ Role of the arachidonic acid metabolic pathway in developing consequences of oxidative stress
- ▶ The RAAS and oxidative stress
- ▶ Molecular consequences of sleep apnoea in cardiovascular system
- ▶ Oxidative stress in pathogenesis of atherosclerosis

Authors can submit their manuscripts through the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/bmri/vascular.medicine/nfacc/>.

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

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