



Oxidative Medicine and Cellular Longevity

Special Issue on **Redox Signaling and the Cardiovascular and Skeletal Muscle System**

CALL FOR PAPERS

Research into the role of reactive oxygen species (ROS) in skeletal, cardiac, and vascular dysfunctions has been under investigation for decades. However, over the last decade new *invitro* and *in vivo* approaches have significantly improved our understanding of the role of oxidative stress in cardiovascular and skeletal muscle disease. Oxidative stress results from an imbalance between the production of free radicals/ROS and the cells intrinsic antioxidant defense mechanisms. Significant changes in oxidative stress have been associated with atherosclerosis, ischemic heart disease, heart failure, hypertension, cardiomyopathies, cardiac hypertrophy, and skeletal muscle diseases such as muscular dystrophy. Growing evidence from laboratory animals and clinical studies suggests an inevitable role of oxidative stress as a potential causal mechanism in various forms of cardiovascular and skeletal diseases and possible protection through antioxidants supplementation.

Given the recent acknowledgements of the importance of oxidative stress in the function of the cardiovascular and skeletal muscle systems, we invite investigators to contribute their original research articles as well as review articles.

Potential topics include, but are not limited to:

- ▶ Biological response to oxidative stress in the cardiovascular and skeletal muscle system
- ▶ Redox biology of angiogenesis and atherosclerotic plaques
- ▶ Adaptive response of cardiovascular and skeletal muscle tissues to oxidative stress
- ▶ Biomarkers of oxidative stress in cardiovascular and skeletal muscle tissues
- ▶ Antioxidant therapy and cardiovascular and skeletal muscle disease
- ▶ Aging, cardiovascular and skeletal muscle disease, and redox status
- ▶ ROS-related micro-RNA in the cardiovascular and skeletal muscle system
- ▶ Mitochondrial functions and oxidative stress in cardiovascular and skeletal tissues
- ▶ Oxidative stress and epigenetic changes in cardiovascular and skeletal muscle pathophysiology
- ▶ Cardiomyopathy, including diabetic cardiomyopathy and oxidative stress
- ▶ Preconditioning and postconditioning in cardioprotection
- ▶ Oxidative stress and ischemia-reperfusion injury
- ▶ Proteomic, genomic, and/or metabolomics changes in cardiovascular and skeletal muscle system in response to oxidative stress

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

Lead Guest Editor

Aldrin V. Gomes, University of California, Davis, USA
avgomes@ucdavis.edu

Guest Editors

Namakal S. Rajasekaran, University of Utah, Salt Lake City, USA
raj.soorappan@hsc.utah.edu

Xinchun Pi, University of North Carolina, Chapel Hill, USA
xinchun_pi@med.unc.edu

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