



## Oxidative Stress in Vascular Diseases

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### Message from the Guest Editor

Dear Colleagues,

Oxidative stress, broadly defined as tissue damage resulting from an imbalance between the production and degradation of reactive oxygen species (ROS), is prominent in many vascular diseases and has been implicated in the pathogenesis of diverse conditions including atherosclerosis, neointimal hyperplasia, and abdominal aortic aneurysms (AAA). Pathologically, oxidative stress disrupts physiologic nitric oxide signaling while promoting vascular inflammation, lipid accumulation, apoptosis, protease-mediated degradation of the extracellular matrix, etc. The overall goal of this thematic issue is to (i) summarize evidence that mechanistically links oxidative stress to vascular diseases such as AAA, with a particular emphasis on human studies; (ii) provide data supporting the role of specific oxidant-generating enzymatic pathways, such as NADPH oxidase, in vascular diseases; (iii) demonstrate the role of key antioxidant defense pathways in mitigating vascular disease; and (iv) exhibit the potential benefit of targeting oxidative stress as a biomarker and treatment strategy for vascular diseases.

Prof. Dr. Neal Weintraub

*Guest Editor*





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