Special Issue

Redox Control of Cell Signaling in Cardiac and Skeletal Muscle

Message from the Guest Editors

The observation that contracting skeletal muscles produce reactive oxygen species (ROS) was reported approximately 40 years ago. This landmark finding provided the impetus for a new field of life science investigation-muscle redox biology. Since this milestone discovery, significant advancements have occurred in our understanding of the influence that ROS and reactive nitrogen species have on cardiac and skeletal muscle contractile function and cell signaling pathways. The continuous production of high levels of ROS results in pathological injury in muscle fibers, whereas transient and low-level ROS production within muscle fibers triggers cell signaling pathways that lead to hormetic adaptation. This Special Issue is designed to cover broad aspects of these important scientific areas, with a primary focus on cellular events and will also address the physiological and pathological aspects of redox events that impact the function of intact cardiac and skeletal muscle fibers.

Guest Editors

Prof. Dr. Scott Powers

Prof. Dr. Li Li Ji

Prof. Dr. Michael Reid

Deadline for manuscript submissions

closed (30 May 2022)



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About the Journal

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Cells has become a solid international scientific journal that is now indexed on SCIE and in other databases. We have successfully introduced a special issues format so that these issues serve as mini-forums in specific areas of cell science. Cells encourages researchers to suggest new special issues, serve as special issues editors, and volunteer to be reviewers. Our main focus will remain on cell anatomy and physiology, the structure and function of organelles, cell adhesion and motility, and the regulation of intracellular signaling, growth, differentiation, and aging. We are open to both original research papers and reviews.

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