Special Issue

Mitochondria Meets Oxidative Stress

Message from the Guest Editors

Mitochondria are crucial in generating cell energy, often celebrated as the cellular powerhouse, despite triggering numerous other critical functions in cell metabolism. However, a delicate equilibrium is disrupted when these tiny organelles face oxidative stress. As both a source and target of reactive oxygen species (ROS), mitochondria become central figures in the intricate dance with oxidative stress. Mitochondria possess sophisticated defense mechanisms to counteract oxidative stress, employing antioxidants and repair systems. The dysfunction of mitochondria due to oxidative stress is associated with various chronical noncommunicable diseases. Grasping this intersection is essential for unravelling the complex cellular health and pathology network and aiming to decipher the molecular intricacies that could lead to innovative therapeutic strategies. These strategies may encompass antioxidants, therapies specifically targeting mitochondria, and lifestyle interventions to alleviate oxidative stress and enhance mitochondrial function, thereby mitigating its impact on cellular function and overall health.

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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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