Special Issue

Mitochondrial Dysfunction and Oxidative Stress in Aging and Disease

Message from the Guest Editor

Mitochondria are considered to have a significant influence on aging due to their critical role in the regulation of bioenergetics, oxidative stress, and cell death. Mitochondrial oxidative stress, commonly associated with age-related pathologies (neurodegenerative syndromes, cardiovascular diseases, endocrine pathologies, diabetes, and cancer), leads to damage to mitochondrial DNA, proteins, and lipids. The increased ROS presence can also induce chronic inflammation, which often characterizes age-related diseases and autoimmune pathologies. Therefore, it is important to understand the molecular mechanisms available and new, and how these mechanisms affect the antioxidant process. In particular, how they protect cells and organs from the harmful effects of free radicals to achieve goals and get rid of disease. In particular, how they protect cells and organs from the harmful effects of free radicals for disease treatment. This is why a better understanding of mitochondrial dysfunction and oxidative stress will lead to new treatments to prevent or improve age-related degenerative diseases.

Guest Editor

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Biomedicines (ISSN 2227-9059) is an open access journal devoted to all aspects of research on human health and disease, the discovery and characterization of new therapeutic targets, therapeutic strategies, and research of naturally driven biomedicines, pharmaceuticals, and biopharmaceutical products. Topics include pathogenesis mechanisms of diseases, translational medical research, biomaterial in biomedical research, natural bioactive molecules, biologics, vaccines, gene therapies, cell-based therapies, targeted specific antibodies, recombinant therapeutic proteins, nanobiotechnology driven products, targeted therapy, bioimaging, biosensors, biomarkers, and biosimilars. The journal is open for publication of studies conducted at the basic science and preclinical research levels. We invite you to consider submitting your work to Biomedicines, be it original research, review articles, or developing Special Issues of current key topics.

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