Special Issue

Mitochondrial Function as a Target in Nanomedicine

Message from the Guest Editor

Mitochondria, as dynamic networks regulating key cellular processes such as apoptosis, ATP synthesis, redox balance, mitophagy, and overall homeostasis, represent a strategic target for therapeutic intervention. Mitochondrial dysfunction is implicated in various diseases, including neurodegenerative disorders like Alzheimer's and Parkinson's, where disruptions in mitochondrial import and protein regulation contribute to pathogenesis. Targeting mitochondria for drug delivery also offers promising avenues in the treatment of cancer as well as metabolic and cardiovascular diseases. However, the effective delivery of therapeutics to these organelles remains a major obstacle in clinical translation. Advances in nanomedicine, offer innovative solutions to enhance therapeutic precision and efficacy in mitochondria-targeted medicine. This Special Issue aims to explore all facets of mitochondrial-targeted strategies within the field of nanomedicine. We warmly invite researchers to submit original studies and review articles that help to advance knowledge in this area and offer critical insights into the role of mitochondria in contemporary nanotherapeutic approaches.

Guest Editor

Dr. Agnieszka Pyrczak-Felczykowska
Department of Physiology, Medical University of Gdańsk, 80-211 Gdańsk, Poland

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Biomedicines
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
biomedicines@mdpi.com

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Message from the Editor-in-Chief

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.

Editor-in-Chief

Prof. Dr. Felipe Fregni
1. Neuromodulation Center and Center for Clinical Research Learning, Spaulding Rehabilitation Hospital and Massachusetts General Hospital, Harvard Medical School, Boston, MA 02114, USA
2. Department of Epidemiology, Harvard T.H. Chan School of Public Health, Boston, MA 02115, USA

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