Special Issue

The Interplay Between miRNA and Mitochondrial Dysfunction in Neurodegenerative Diseases

Message from the Guest Editor

MicroRNAs (miRNAs) play a pivotal role in post-transcriptional gene regulation. They are involved in nearly every aspect of fundamental physiological and pathological cellular functions. Over the past decade, our understanding of miRNA biology, their target genes, biomarkers, and potential therapeutic applications has significantly increased. The role of nuclear DNA-encoded miRNAs in the progression of various neurological diseases is well established. However, our knowledge about mitochondrial miRNAs remains limited. These miRNAs either originate from the mitochondrial genome or are directly translocated into the mitochondria. In this context, emerging evidence suggests a potential interplay between mitochondrial dysfunction and miRNA in the progression of various neurodegenerative diseases. This Special Issue welcomes contributions that expand our understanding of gene expression regulation by either nuclear DNA-encoded microRNAs and/or mitochondrial miRNAs in neurodegenerative diseases, and the involvement of mitochondrial dysfunctions in these pathologies.

Guest Editor

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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.

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