Special Issue

Nutrient Sensing, Redox Homeostasis and Metabolic Diseases: Molecular Insight

Message from the Guest Editor

The dysfunction of the metabolic system generally occurs due to the disturbance in energy balance, nutrient sensing, and altered redox homeostasis, leading to the development of various disorders, including diabetes, obesity, and cancer. An intervention involving diet manipulation or caloric restriction have shown some promising outcomes, including a delay in age-related disease. Pathways that mainly involve energy sensing and homeostasis are mTOR, sirtuins (SIRT1), AMPK, and insulin/insulin growth factor-1 (IGF-1). Alteration in these pathways may lead to altered nutrient sensing and redox homeostasis and thus the development of metabolic disorders. Understanding the mechanism behind how these pathways are altered during the progression or development of metabolic diseases could be beneficial for managing these diseases. For this Special Issue, we invite articles related to the areas of cellular or systemic metabolism, nutrient sensing, redox homeostasis, drugs mimicking dietary intervention, or caloric restrictions such as metformin and resveratrol in metabolic diseases including obesity, diabetes, cardiovascular, liver disorders, and cancers.

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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