



Nutrient Sensing, Redox Homeostasis and Metabolic Diseases: Molecular Insight

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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.





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Message from the Editor-in-Chief

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