



Metabolic Mechanisms of Cardiac Injury

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

The hearts of adult mammals can hardly regenerate after cardiac injury, which is associated with the irreversible loss of viable cardiomyocytes. Myocardial injury leads to disturbed contractility of the remaining living myocardium, detrimental cardiac remodeling, and, as a result, heart failure. A focus on the changes in myocardial energy metabolism, including fatty acid, glucose, and amino acid metabolism, in cardiac physiological and pathological states is crucial. Metabolites are not only a source of energy but also become critical regulators of gene expression and epigenetic patterns, which may affect heart regeneration.

However, the metabolic pathways of cardiac damage and heart failure are still elusive, and novel metabolic defects and pathways remain to be identified for screening, molecular diagnosis, drug-target development, and personalized medicine.

This Special Issue focuses on the role of energy metabolism in cardiac injury, intending to shed light on strategies for manipulating heart metabolism and promoting heart repair after cardiac injury.





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Message from the Editor-in-Chief

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