



Molecular Research on Adenosine Receptors: From Cell Biology to Human Diseases

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Message from the Guest Editor

Adenosine is a ubiquitous endogenous cell signaling and modulator agent that plays a key role in the regulation of many physiological cell-signaling pathways; this nucleoside triggers a cellular response, activating four G-protein-coupled receptors (GPCRs) named the A1, A2A, A2B and A3 adenosine receptors (ARs). ARs are expressed in several tissues and organs, such as the brain, heart, bones, eyes, kidneys, skin, adipose tissue, immune cells, lungs and liver; due to their body distribution, ARs are implicated in several human disease, such as neurodegenerative disorders, chronic inflammatory diseases, cancer, hypoxia and ischemia. In many pathophysiological conditions, adenosine acts as a sensor for tissue damage, binding several AR-activating signaling pathways for the protection of damaged tissues or organs. Therefore, ARs could be considered a promising therapeutic target.

The purpose of this Special Issue is to include original research papers and/or relevant literature data updates on novel insights into the pathogenesis, molecular pathways and beneficial effects of novel and safe AR agonist treatments.





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Message from the Editor-in-Chief

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