Special Issue

Purine Nucleotides Metabolism and Signaling in Human Diseases: Search for a Target for Novel Therapies

Message from the Guest Editor

Among purine nucleotides metabolism, the cyclic AMP (cAMP) discovered as the "second messenger", was first investigated as the main contributor of intracellular signaling. Currently, the development of molecular biology allows us to investigate and classify the superfamily of cyclic nucleotide phosphodiesterases. They specifically control cyclic nucleotides levels at different cellular levels, hydrolyzing cyclic nucleotides in their respective nucleotide monophosphates, which can modulate cellular signaling cascade. Our knowledge of intracellular signaling regulation drastically increased during the last fifty years opening the development of multiple signaling pathways, issued from purine nucleotides. In the present Special Issue, it would be of interest to consider not only part of the specific molecular regulations of signaling, but to consider the whole signalosome, determining links inside the regulatory cascade and purine nucleotides mechanisms in normal and pathological states in humans, in order to develop new therapeutic approaches.

Guest Editor

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