Special Issue

Pharmacological, Biochemical and Molecular Study of Adenosine Receptors

Message from the Guest Editor

The endogenous purine nucleoside adenosine is involved in the regulation of different functions in every organ and tissue, through interaction with four G protein coupled receptors; A1, A2A, A2B and A3 adenosine receptors (ARs). Several physiopathological effects, primarily regulating central nervous and peripheral systems, are probably due to the wide distribution of ARs throughout the body. As a consequence, ARs and their modulation could potentially represent an attractive target for drug development in some of the most widespread disorders, such as inflammation. neurodegenerative disorders, ischemia, pain, cancer and fibrosis. In particular, adenosine signaling is involved in neurotransmission, secretion and neuromodulation, and in long term effects including proliferation, differentiation, migration, cell death and regeneration. The potential application of novel compounds, as both pharmacological tools and therapeutic agents, could be very interesting to better highlight the translation of basic adenosine research in the cure of human diseases.

Guest Editor

Prof. Dr. Katia Varani

Department of Translational Medicine, University of Ferrara, Ferrara, Italy

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International Journal of Molecular Sciences Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 ijms@mdpi.com

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Editor-in-Chief

Prof. Dr. Maurizio Battino

Department of Odontostomatologic and Specialized Clinical Sciences, Sez-Biochimica, Faculty of Medicine, Università Politecnica delle Marche, Via Ranieri 65, 60100 Ancona, Italy

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