

Special Issue

Purinergic Signalling in Physiology and Pathophysiology

Message from the Guest Editor

Extracellular nucleotides and nucleosides are essential autocrine and paracrine signalling molecules. The action of these extracellular molecules is mediated by the activation of cell-surface receptors comprising P2X ion channels, as well as P2Y and adenosine G-protein-coupled receptors. Furthermore, the concentrations of extracellular nucleotides and nucleosides are regulated by various ectoenzymes and nucleotide/nucleoside release and transport mechanisms. Collectively, these molecules and processes form a network of cellular communication termed purinergic signalling. This network occurs in a wide range of cells and tissues, and plays important roles in physiology and pathophysiology in various species. The aim of this Special Issue is to provide current examples and overviews of the various roles of purinergic signalling in a range of physiological and pathophysiological contexts. Original articles and reviews relating to specific purinergic receptors, ectoenzymes or nucleotide/nucleoside release and transport mechanisms, as well as those providing holistic views of purinergic signalling, are welcomed.

Guest Editor

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Message from the Editor-in-Chief

The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

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