

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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