

## Special Issue

# Modulation of P2X Receptors: Emerging Implications for Cellular Signaling and Disease Management

### Message from the Guest Editors

The purinergic pathway plays a key role in the regulation of body homeostasis at a cellular level, being implicated in cellular proliferation, differentiation, death, and regeneration, as well as being known to be involved in more complex processes such as pain, inflammation, immune responses, and endothelial vasodilatation. Therefore, the aberrant activation of this signaling is associated with the onset of several disorders, including chronic pain, epilepsy, Alzheimer's disease, cancer, diabetes, and cardiovascular dysfunctions. This Special Issue aims to highlight recent advances in the functions of purinergic receptors (comprising both P1 and P2 receptors) in both physiological and pathological status, with a central focus on the underlying molecular mechanisms. We will delve into the possibility of modulating these receptors as an innovative therapeutic option to manage different pathological conditions, trying to elucidate the benefits and risks of this strategy by analyzing studies conducted on cell lines, animal models, and humans.

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### Guest Editors

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### Deadline for manuscript submissions

closed (30 April 2026)



## Cells

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## About the Journal

### Message from the Editorial Board

*Cells* has become a solid international scientific journal that is now indexed on SCIE and in other databases. We have successfully introduced a special issues format so that these issues serve as mini-forums in specific areas of cell science. *Cells* encourages researchers to suggest new special issues, serve as special issues editors, and volunteer to be reviewers. Our main focus will remain on cell anatomy and physiology, the structure and function of organelles, cell adhesion and motility, and the regulation of intracellular signaling, growth, differentiation, and aging. We are open to both original research papers and reviews.

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### Editors-in-Chief

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