



cells



an Open Access Journal by MDPI

Phosphodiesterases (PDEs): Therapeutic Targets in Human Health and Disease

Guest Editors:

Dr. Paul M. Epstein

Dr. Stefan Brocke

Dr. Michy P. Kelly

Dr. Leila Gobejishvili

Deadline for manuscript
submissions:

28 February 2025

Message from the Guest Editors

In 1957, when Earl Sutherland and Ted Rall discovered cAMP as the first “second messenger” mediating the effects of hormones on liver and skeletal muscle, the field of signal transduction, the way in which cells communicate with each other and respond to external signals, was born. An enzymatic activity, cAMP phosphodiesterase (PDE), capable of converting cAMP to 5'-AMP, which terminates the messenger function of cAMP, was reported at the time of its discovery. To this end, efforts have been focused on which PDEs mediate which cell processes and on developing selective inhibitors of these PDEs to correct a wide variety of disease states. Drugs that target PDEs have now been approved for COPD, psoriasis, atopic dermatitis, erectile dysfunction, pulmonary hypertension, and heart failure. And this is only the tip of the iceberg, as they also show therapeutic benefits for a wide range of cancers, CNS disorders, autoimmune disorders, and metabolic disorders.

The aim of this Special Issue is to highlight recent advances in targeting PDEs for therapeutic benefit, and we would be delighted to have you join us in this by submitting your recent work.



mdpi.com/si/182168

Special Issue



cells



an Open Access Journal by MDPI

Editors-in-Chief

Prof. Dr. Alexander E. Kalyuzhny

Neuroscience, UMN Twin Cities,
6-145 Jackson Hall, 321 Church St
SE, Minneapolis, MN 55455, USA

Prof. Dr. Cord Brakebusch

Biotech Research & Innovation
Centre, The University of
Copenhagen, Copenhagen,
Denmark

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.

Author Benefits

Open Access: free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

High Visibility: indexed within [Scopus](#), [SCIE \(Web of Science\)](#), [PubMed](#), [MEDLINE](#), [PMC](#), [CAPus / SciFinder](#), and [other databases](#).

Journal Rank: JCR - Q2 (*Cell Biology*) / CiteScore - Q1 (General Biochemistry, Genetics and Molecular Biology)

Contact Us

Cells Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/cells
cells@mdpi.com
[X@Cells_MDPI](#)