

## Special Issue

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

### 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.

### Guest Editors

Dr. Paul M. Epstein

Dr. Stefan Brocke

Dr. Michy P. Kelly

Dr. Leila Gobejishvili

### Deadline for manuscript submissions

20 February 2026



## Cells

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*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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