



cells



an Open Access Journal by MDPI

Signaling Pathways for Nervous System Mechanotransduction

Guest Editor:

Dr. Pamela J. VandeVord

Virginia Polytechnic Institute,
State University, Blacksburg, VA,
USA

Deadline for manuscript
submissions:

closed (1 September 2023)

Message from the Guest Editor

Dear Colleagues,

The idea that cells can interpret and reply to mechanical cues is not new to the scientific community. However, the elucidation of the molecular mechanisms by which the cell observes and transforms the mechanics of the extracellular matrix has become the subject of intense study. Mechanotransduction is the process of translating mechanical stress on cells into chemical signals that trigger adaptive responses. Mechanotransduction involves broad, yet critical cellular signaling processes which have yet to be elucidated in traumatic brain injury (TBI) pathophysiology. Therefore, it is necessary to develop strategies for studying the mechanics of cellular injury and the associated mechanobiological responses that result from well-defined mechanical perturbation.

This Special Issue aims to provide a comprehensive overview of in vitro and in vivo models that have been used to shed light on the important cellular, molecular, and mechanobiological aspects of mild traumatic brain injury. We hope that the approaches presented provide valuable practical support to the community of researchers investigating mechanotransduction in the central nervous system.



mdpi.com/si/153307

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
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

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

mdpi.com/journal/cells
cells@mdpi.com
[@Cells_MDPI](https://twitter.com/Cells_MDPI)