Special Issue

Signaling Pathways for Nervous System Mechanotransduction

Message from the Guest Editor

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.

Guest Editor

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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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