Special Issue

Mechanosensation and Mechanotransduction in Brain Cells

Message from the Guest Editor

Mechanosensation and mechanotransduction are traditionally studied in specialized cell types, such as sensory axonal terminals in the peripheral nervous system, cochlear hair cells in the auditory system, and epithelial cells in the kidney. Recent studies suggest that most, if not all, types of cells possess the ability to convert mechanical stress to electrical or chemical signals, but their underlying mechanisms remain poorly understood. For instance, since the vertebrate brain is well-protected by the skull, its structure and function in the context of mechanics have not been extensively investigated. The brain is the most complex organ in the body, consisting of neuronal and glial cells, as well as endothelial, epithelial, and even immune cells. A better understanding of how these cells sense and respond to mechanical stress could inform new rational therapies for mild traumatic brain injury and related neurodegenerative disorders. For this Special Issue, we welcome original submissions exploring novel phenomena, methodologies, mechanisms, related disorders or animal models of mechanosensation, and mechanotransduction of various cell types in the brain and other organs.

Guest Editor

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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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