Special Issue

Glial Cells: Physiological and Pathological Perspective

Message from the Guest Editor

Glial cells, comprising astrocytes, microglia, oligodendrocytes, and ependymal cells, play crucial roles in maintaining CNS homeostasis, neuronal support, and response to injury. Emerging evidence implicates glial cells as central players in the pathogenesis of neurodegenerative diseases. Microglia, the resident immune cells of the CNS, are pivotal in mediating inflammatory responses. Oligodendrocytes, responsible for myelination, are affected in diseases such as multiple sclerosis, where demyelination impairs neural conductivity and leads to neurodegeneration. Additionally, the interactions between glial cells and neurons are critical in modulating the progression of disease. Understanding the molecular mechanisms governing glial cell function and dysfunction would provide insights into the complex interplay between these cells and neurons in neurodegenerative diseases. This knowledge is pivotal for developing glia-targeted therapies that are aimed at modulating glial activity in order to ameliorate disease progression and promote neuroprotection in the fight against neurodegenerative diseases.

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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