Special Issue

Primary Cilia in the Nervous System: Structure, Function and Disease Mechanisms

Message from the Guest Editors

Primary cilia are near-ubiquitous organelles. These typically hair-like structures act as cellular antennae to receive and transduce many types of extracellular signals. Although knowledge of primary cilia in many different tissues and organs has rapidly advanced, somewhat surprisingly, their role in the nervous system and especially the brain has been lacking. We now know that most neural progenitors, neurons, and glial cells, including those of the CNS, express a primary cilium. Furthermore, an increasing number of studies are revealing regulatory roles for primary cilia in neurodevelopmental processes such as neuronal cell specification, genesis, migration, axon guidance, synapse formation, and signaling. This special issue invites original research and review papers that focus on primary cilia in the nervous system. The papers can cover any aspect of cilia structure/function in cells of the peripheral/sensory or central nervous systems, within animal (invertebrate or vertebrate), or cell/tissue culture contexts. We also welcome submissions addressing disease mechanisms and therapeutic investigations focused on ciliopathies with nervous system involvement.

Guest Editors

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Deadline for manuscript submissions

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About the Journal

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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