Special Issue

Hedgehog Signaling: Advances in Development and Cancer

Message from the Guest Editor

Thirty years ago, in 1992, the Drosophila hedgehog (hh) gene was independently cloned by the research teams of Jym Mohler, Philip Beachy, Thomas Kornberg, and Saigo Kaoru. Following this discovery, three classes of vertebrate hh genes were identified: Sonic hedgehog (Shh), Indian hedgehog (Ihh), and Desert hedgehog (Dhh). We now know that the Hh signaling pathway patterns a variety of organs and tissues in metazoan embryos. Defective Hh signaling during development thus leads to patterning defects, such as disrupted segmentation in Drosophila, holoprosencephaly, and other malformations in humans. Postembryonically, the Hh pathway also functions homeostatically in tissue maintenance and regeneration processes, acting on tissue stem or progenitor cells. Therefore, the postembryonic dysregulation of Hh pathway activity can result in proliferative conditions, such as malignant tumors or tissue degeneration.

In this Special Issue, we invite you to advance our current knowledge on Hh signaling by contributing review articles or original research articles describing mechanistic insights at the molecular, cellular, or organismal level, as well as those providing translational value.

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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