Special Issue

Decoding Signaling Pathways in Liver Disease: From Mechanisms to Therapeutic Strategies

Message from the Guest Editor

The liver is essential for metabolism, detoxification, and systemic homeostasis. Its functions are regulated by intricate signaling pathways and cell communication networks involving hepatocytes, immune cells, cholangiocytes, liver sinusoidal endothelial cells (LSECs), and other cell types. Disruptions in these systems, along with interactions with the gut microbiota, can lead to various liver diseases. Advances in high-throughput techniques, especially single-cell RNA sequencing (scRNA-seq), single-cell ATAC sequencing (scATAC-seq), and spatial transcriptomics, have deepened our understanding of the signaling pathways involved in liver diseases. Additionally, the integration of artificial intelligence (AI) and bioinformatics facilitates the analysis of large datasets. These tools also enhance our understanding of signaling pathways, including crosstalk among various cells and organs. Combining these technological advancements with insights into signaling pathways in liver diseases holds promise for more effective treatments. This integrated approach has led to the development of targeted and combination therapies informed by specific molecular mechanisms.

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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