

Special Issue

Molecular Genetics of Cystic Kidney Disease

Message from the Guest Editors

Inherited cystic kidney diseases, including ADPKD and ARPKD, remain a significant challenge, driven by genetic mutations and dysregulated signaling pathways. Hence, there is a need to characterize the molecular mechanisms underlying cystogenesis, encompassing ciliary protein function, ciliary signaling, and emerging molecularly targeted strategies, to provide deeper insight into disease pathogenesis.

This Special Issue will examine ciliary protein function and associated signaling pathways; methods for genetic screening and functional validation of cystic disease genes *ex vivo*; the effects of specific mutations on ciliary structure, mechanosensation, and downstream signaling cascades; three-dimensional cell culture systems including kidney organoids for modeling cystogenesis; *in vitro* platforms for dissecting the interplay between the cell cycle, fluid secretion, and tubular morphogenesis; and *in vivo* models to investigate the efficacy of molecularly targeted therapies in attenuating cyst growth and preserving renal architecture.

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About the Journal

Message from the Editor-in-Chief

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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