Special Issue

Drosophila Model in Molecular Mechanisms of Kidney Dysfunction

Message from the Guest Editor

Kidney dysfunction, resulting from various diseases, presents a significant global health challenge, affecting millions worldwide. The burden of this dysfunction is notably severe, given the high treatment costs and its profound impact on quality of life. Therefore, a deep understanding of the molecular mechanisms and the identification of potential drug targets are crucial for advancing research in kidney dysfunction. In *Drosophila*, kidney and excretory functions are localized to the following three main tissues: the transporting renal (Malpighian) tubules, the reabsorptive hindgut, and the nephrocytes. This structural and functional similarity makes *Drosophila* an invaluable model for relating kidney phenotypes to human conditions. In this Special Issue, we will apply *Drosophila* to explore the molecular mechanisms underlying kidney dysfunction; use *Drosophila* to model various kidney diseases, including nephrotic syndrome, diabetic nephropathy, and APOL1-associated kidney diseases; identify candidate genes for kidney diseases; investigate kidney development processes; and explore potential mechanisms for maintaining kidney function.

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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