Special Issue

Retinal Pigment Epithelium Dysfunction in Retinal Disorders: Pathophysiology and Therapeutic Strategies

Message from the Guest Editors

The retinal pigment epithelium (RPE) plays a crucial role in maintaining retinal homeostasis, supporting photoreceptor function, and preserving visual integrity. Dysfunction or degeneration of the RPE is a hallmark of several debilitating retinal disorders. Advances in our understanding of the cellular and molecular mechanisms underlying RPE dysfunction have opened new avenues for therapeutic interventions, including gene therapy, stem cell-based replacement strategies, and pharmacological modulation.

This thematic Issue aims to provide a comprehensive overview of the latest discoveries related to RPE pathophysiology, the impact of RPE dysfunction on retinal degeneration, and innovative therapeutic strategies targeting RPE preservation and repair. Contributions are invited on topics including, but not limited to, molecular pathways leading to RPE degeneration, disease modeling using pluripotent stem cells, cell-based and gene-based therapies, biomaterials for RPE support, and translational approaches to restore RPE function in retinal diseases.

Guest Editors

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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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