Special Issue

Retinal Pigmented Epithelium (RPE) and the Choroid: Players and Partners for Vision

Message from the Guest Editors

This Special issue will highlight the relationship of the RPE to photoreceptor cells and choroid, the complexity of their multi-level relations and the importance of these interactions to sight. The RPE is strategically situated between the photoreceptor cells of neural retina and the choroidal vasculature. The functions of this cell monolayer include the phagocytosis of the shed photoreceptor cell outer segment membrane; implementation of crucial steps in the visual cycle: absorption of scattered light; ion and fluid transport and metabolic synergy with photoreceptor cells and maintenance of a healthy choroid. The crucial nature of these activities is apparent from the numbers of genetic diseases associated with RPE-expressed proteins; the involvement of RPE in age-related macular degeneration; the importance of maintaining RPEphotoreceptor cell apposition; and the developmental consequences of RPE melanin deficiency on foveal development and on the projections of retinal ganglion cells axons.

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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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