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.

Guest Editors

Prof. Dr. Luminita Paraoan

Ocular Molecular Biology and Mechanisms of Disease Group, Department of Biology, Faculty of Arts and Sciences, Edge Hill University, Ormskirk L39 4QP, UK

Prof. Dr. Janet R. Sparrow

Departments of Ophthalmology, Columbia University, 635 W. 165th Street, New York, NY 10032, USA

Deadline for manuscript submissions

25 September 2025



Cells

an Open Access Journal by MDPI

Impact Factor 5.2 CiteScore 10.5 Indexed in PubMed



mdpi.com/si/217135

Cells
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
cells@mdpi.com

mdpi.com/journal/cells





Cells

an Open Access Journal by MDPI

Impact Factor 5.2 CiteScore 10.5 Indexed in PubMed



About the Journal

Message from the Editorial Board

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.

Editors-in-Chief

Dr. Alexander E. Kalyuzhny

Dental Basic Sciences, University of Minnesota, 308 Harvard St. SE, Minneapolis, MN 55455, USA

Prof. Dr. Cord Brakebusch

Biotech Research & Innovation Centre, The University of Copenhagen, Copenhagen, Denmark

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, MEDLINE, PMC, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Cell Biology) / CiteScore - Q1 (General Biochemistry, Genetics and Molecular Biology)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the first half of 2025).

