

Special Issue

Cellular Metabolism and Retinal Diseases: Unraveling Molecular Pathways and Therapeutic Targets

Message from the Guest Editors

The retina is one of the most metabolically active tissues in the body, its different cell types organized in layers with close metabolic symbiotic exchanges between the cellular components. In particular, the retinal pigment epithelium (RPE) supplies nutrients from the choroidal vasculature to all retinal cellular components. However, the high metabolic demands depend on the nutrient supply. Therefore, the retina may be considered a metabolic ecosystem in which RPE cell dysfunction may compromise the function and viability of other retinal cells. RPE can use a lot of fuels to produce energy. The disruption of the local energy supply may affect the redox balance, contributing to a disrupted retinal homeostasis. Moreover, metabolites affect epigenetic modifications, linking the cellular metabolism to transcriptional activity.

It is well known that the pathogenesis of retinal diseases is associated with retinal metabolism dysregulation. This Special Issue aims to provide new insights into the metabolic mechanisms at the basis of retinal diseases, supporting new therapeutic targets.

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The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

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