



Role of Stem Cells in Ophthalmology

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Deadline for manuscript
submissions:

closed (31 January 2022)

Message from the Guest Editor

The retina, which consists of the multi-layered neural retina and the mono-layered retinal pigment epithelium (RPE), has limited capacity for regeneration. Common retinal diseases such as age-related macular degeneration (AMD), retinitis pigmentosa (RP), glaucoma, and diabetic retinopathy cause irreversible vision loss. To restore vision, stem cell therapy is particularly attractive because of its potential to replace degenerated or damaged retinal tissue. Recent studies have used embryonic stem cells (hESCs) or induced pluripotent stem cells (iPSCs) as sources for transplantable tissue. We warmly welcome submissions, including original papers and reviews on various cellular therapies for the molecular mechanisms and treatment of retinal dysfunction diseases. This Special Issue focuses on basic research in the growth and differentiation of stem cells into various retinal cell types, targeting of molecular pathways, advanced labelling techniques, use of biomaterials, 3D bioprinting, retinal organoids, and gene editing to induce stem cell differentiation as emerging techniques.





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Message from the Editor-in-Chief

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