

Special Issue

Gene Therapy for Ocular Diseases: Mechanisms, Advances and Therapeutic Applications

Message from the Guest Editor

We are pleased to announce a Special Issue entitled “Gene Therapy for Ocular Diseases: Mechanisms, Advances and Therapeutic Applications.” This collection aims to explore the cutting-edge molecular strategies and translational breakthroughs driving vision restoration and preservation. We welcome original research articles, comprehensive reviews, and short communications elucidate:

Mechanistic insights into vector–cell interactions, immune modulation, and intracellular trafficking in retinal and anterior segment tissues.

Innovations in vector design, including AAV capsid engineering, non-viral delivery systems, and targeted nanoparticle approaches for ocular tropism.

Preclinical and clinical advances, highlighting efficacy, safety, and biodistribution studies in models of inherited retinal diseases, glaucoma, age-related macular degeneration, and other eye disorders.

Therapeutic applications, such as genome editing (CRISPR/Cas, base editors), RNA interference, and cell-based gene delivery for regeneration and neuroprotection.

Challenges and prospects, addressing immune barriers, off-target effects, manufacturability, and regulatory considerations.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

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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