



Advanced Applications of Nanoparticles in Ophthalmology

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Message from the Guest Editor

Dear Colleagues,

This Special Issue, entitled "Advanced Applications of Nanoparticles in Ophthalmology", presents an overview of the cutting-edge research and innovative breakthroughs in the field of ocular nanomedicine. Nanoparticles have emerged as promising tools with immense potential to revolutionize the diagnosis and treatment of various ocular disorders, addressing the unmet needs and challenges in ophthalmic care.

Special attention is devoted to the role of in vitro models in the preclinical development of new ophthalmic therapeutic agents, providing valuable insights into drug efficacy, safety, and pharmacokinetics.

Furthermore, the application of nanoparticles in gene therapy for ocular genetic disorders is highlighted, showcasing the potential to correct or modify disease-causing mutations and restore visual function. Finally, the safety aspects of nanoparticle-based therapies in ophthalmology are considered.





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Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal-organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

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