Special Issue

Functional Nanomaterials for Gene Therapy

Message from the Guest Editors

This Special Issue will highlight recent advances in functional nanomaterials designed for gene therapy applications. We welcome original research and review articles that cover, but are not limited to, the following topics:

- Design and development of nanomaterials for nucleic acid delivery.
- Lipid-based nanoparticles (LNPs) for gene therapy.
- Polymer-based and hybrid nanoparticle systems.
- Targeted and stimuli-responsive gene delivery platforms.
- CRISPR/Cas-based genome editing delivery systems.
- Biocompatibility, toxicity, and immune response of nanocarriers.
- Translational and clinical advancements in nanomaterial-based gene therapies.

This Special Issue will provide a comprehensive perspective on the current state of the field, bridging fundamental research and clinical applications. By integrating novel material designs with cutting-edge gene therapy strategies, we aim to facilitate the next generation of nanomedicine innovations.

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About the Journal

Message from the Editor-in-Chief

The biomaterials field is one of the largest and fastest growing research areas both in the scientific community and in the industrial one. Biomaterials are the result of collaborations between different disciplines: chemistry, medicine, pharmacology, engineering and biology. The objective of this collaboration is to lead to the implementation of new devices to restore form and human body functions. The mission of the *Journal of Functional Biomaterials* (*JFB*) is to focus attention on physico-chemical characteristics and their importance in the interactions between biomaterials and living tissues. *JFB* seeks to publish studies on the preparation, performance and use of biomaterials in biomedical devices, as well as regarding their behavior in physiological environments. We are pleased to welcome you as our authors.

Editor-in-Chief

Prof. Dr. Pankaj Vadgama
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