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# Pharmaceutical Aspects of Polymer-Based Delivery of Nucleic Acids 2022

Guest Editor:

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### Message from the Guest Editor

Dear Colleagues,

The therapeutic potential using nucleic acids (DNA or RNA) has many clinical applications for the treatment of diseases. For reaching the goal, these nucleic acids require vectors with efficacy and efficiency. The use of non-viral carriers, mainly based on cationic polymers which have low or no immunogenicity and are able to transfect a great variety of cells, has received substantial attention.

This Special Issue focuses on the physicochemical properties as well as the transfection potential of polymerbased nucleic acid formulations (referred as polyplexes). New approaches and different polymeric systems with chemical modifications are introduced, and how these polyplexes tackle the cellular barriers, the cytotoxicity, and low transfection efficiency for a successful expression of delivered genes are demonstrated and discussed. Finally, attention is given to the stabilization of non-viral nucleic acid formulations.









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