



Nucleic Acid Nanobiology for Drug Delivery and Immunotherapy

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

Immunomodulatory nucleic acids have been identified as potent pharmaceuticals, ranging from Toll-Like Receptor (TLR) agonists to checkpoint blockades. Similarly designed DNA agonists have been shown to bind irreversibly to the same receptors to reduce undesirable immune responses.

By harnessing the programmable architecture of nucleic acids, dynamic structures can be designed which are capable of carrying out precisely controlled functions and immunomodulation for uses in nanomedicine. The coverage of this special issue will include (but not limited) by following topics:

- Immunorecognition of nucleic acids in animal models and humans
- Desirable immunomodulation using nucleic-acid based nanoparticles
- Undesirable immunological side-effects of nucleic acid therapeutics
- Rational design and characterization of programmable nucleic-acid based nanoparticles
- Delivery of nucleic-acid based nanoparticles and effect of carrier on their immunorecognition
- Therapeutic nucleic-acid based nanoparticles: design, assembly, characterization





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Message from the Editor-in-Chief

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