



Design and Fabrication of Theranostic Nanoparticles

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Message from the Guest Editors

Dear Colleagues,

Theranostics, defined as nanomedicine that combines diagnostics with therapeutics, employ personalized medicine for cancer treatment or other diseases, are designed to improve the detection, increase the efficacy of the treatment, and limit the associated systemic toxicity.

The ideal theranostic agent should assemble the below criteria:

- Safe to the organism;
- Stable under physiological conditions when delivered;
- Able to penetrate through any biological barrier encountered whole en route to the intended tissue or organ while also having no significant toxic side effects;
- Rapidly and selectively able to accumulate in target(s) of interest;
- Efficiently deliver a sufficient amount of the drug(s);
- Report biochemical and morphological characteristics of the disease(s);
- Be rapidly cleared from the body or biodegraded into nontoxic byproducts.

This Special Issue is devoted to the field of theranostic selection from design and synthesis to in vitro and in vivo studies and up to a clinical applied solution based on a core technology that combines imaging, therapeutic drugs, and diagnostic labels into a single entity or multiple combinations of nanomedicine.





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Message from the Editor-in-Chief

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