

Special Issue

Nanoparticles in Drug Delivery: Present and Future Trends

Message from the Guest Editors

In recent decades, the great development of bioengineering and medical biotechnology has facilitated the design and production of nanoparticles exhibiting unique physicochemical and biological properties favorable for drug delivery applications. The key advantages of nanoparticles are (I) improved bioavailability by enhancing aqueous solubility, (II) increased half-life for clearance, and (III) targeting of therapeutic agents to its specific site of action. This results in concomitant reduction in the quantity of drugs required and dosage toxicity, enabling the safe delivery of toxic therapeutic drugs and protection of non-target tissues and cells from severe side effects. The main aim of this Special Issue is to focus on present and future developments of nanoparticles as drug delivery systems. Addressed topics include but are not limited to organic (synthetic, (bio)polymer-based, and lipid nanoparticles) and inorganic nanoparticles (gold, magnetic, silica nanoparticles, etc.) for the delivery of therapeutic agents, and nanoparticles for health applications in general.

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Deadline for manuscript submissions

closed (30 June 2023)



Bioengineering

an Open Access Journal
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Impact Factor 3.7
CiteScore 5.3
Indexed in PubMed



mdpi.com/si/113630

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Editor-in-Chief

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