

Special Issue on
Development of Drug Delivery Systems: Nanoscale Biomaterials and Nanotechnologies as the Emerging Strategies

CALL FOR PAPERS

Drug delivery systems are defined as formulations or engineered methods that introduce pharmaceutical compounds to accomplish therapeutic effects in the body. In the past three decades, the development of drug delivery system has dramatically improved the bioavailability of therapeutic agents, minimized the degradation of drugs, diminished harmful side effects, and reduced toxic concentration (drug accumulation) in nontargeting areas. Development of an effective drug delivery system requires interdisciplinary research, including polymer science, nanotechnologies, pharmaceuticals, bioconjugation chemistry, and molecular biology that consider pharmacokinetics, pharmacodynamics, nonspecific toxicity, immunogenicity, biorecognition, and drug efficacy.

Nanoparticles have tremendous potential in bioimaging and drug delivery due to their unique physical and chemical properties. Surface modifications of engineered nanoparticles allow for size-dependent targeting and accumulation. This special issue is intended to discuss improvements of pharmaceutical administration at the nanoscale. We cordially invite researchers to contribute reviews as well as original papers that cover recent development of drug delivery systems.

Potential topics include but are not limited to the following:

- ▶ Controlled release of biologically active compounds in nanovesicles
- ▶ Design of various delivery vehicles and cargoes, including nanoparticles, polymers, and micelles, proteins, DNA, and nucleotides
- ▶ Targeting specific cells or organs to treat diseases such as leukemia and carcinoma
- ▶ Pharmacokinetics and pharmacodynamics of biodegradable particles, polymers, liposomes, micelles, and so forth as drug carriers
- ▶ Prevention or reduction in immunogenic response and general toxicity of delivery systems
- ▶ Overcoming blood-brain-barrier to treat brain diseases
- ▶ Theranostics for bioimaging, diagnosis, and disease treatment

Authors can submit their manuscripts through the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/bmri/pharmaceutics/ddds/>.

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First Round of Reviews

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