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Special Issue

TARGETED AND CONTROLLED DRUG DELIVERY THROUGH NANOMATERIAL METHODS

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AIM AND SCOPE

Nanotechnology provides exciting new tools and materials for the pharmaceutical and biotechnology industries that have the potential to dramatically improve drug delivery. Improving drug delivery is critically important because more than 100,000 deaths per year occur in even those patients who take prescription drugs properly (Robert Langer, 2006). The small size and high surface-to-volume ratio of nanomaterials make them ideal candidates for drug delivery in order to guide therapeutics to tissues, coax them through biological barriers at surfaces of and within cells, and escape drug clearance. It would be of great interest for the journal's readership to have an issue highlighting nanomaterial design for controlled drug delivery and targeting. We would like to propose this issue to have roughly half of the articles devoted to large molecule delivery and the other half focused on small molecule pharmaceutical delivery. Both types of therapeutics present their own unique challenges and require multidisciplinary approaches to delivery. Specifically, we are interested in research that utilizes novel nanomaterial approaches for overcoming drug delivery challenges such as: low permeability, high clearance, uncontrolled rate of delivery, targeting, and low cellular internalization among others. Furthermore, nanomaterial strategies that influencePK/PD, toxicology,and in vivo efficacy will also be welcomed in this issue.

Keywords: *Nanostructures, nanoparticles, controlled drug delivery, biologics, small molecules, devices, targeting, pharmacokinetics, pharmacodynamics, efficacy*

SUBTOPICS

1	**Nanomaterials for large molecule drug delivery**	**4**	**Targeted delivery with nanomaterials**
2	**Nanomaterials for small molecule drug delivery**	**5**	**Nanoparticle pharmacokinetics and pharmacodynamics**
3	**Engineered nano-devices**		

SCHEDULE

Manuscript submission deadline	**July 1, 2014**
Peer Review Due	**July 15, 2014**
Revision Due	**July 29, 2014**
Notification of acceptance by the Guest Editor	**August 5, 2014**
Final manuscripts due	**August 19, 2014**

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