

## Tentative Outline

### Special Issue for MINI-REVIEWS IN MEDICINAL CHEMISTRY

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## SYNTHETIC BACTERIALS AND VIRUSES - DRUG DELIVERY BASED ON BIOMATERIAL

### Aims & Scope:

Within medical practice, drug delivery has the potential to maximize drug action and minimize side effects by achieving selective delivery of drugs to specific areas in the body. Drug delivery can be achieved with different levels of sophistication: 1. particular organ (first-order); 2. Specific cell type (second-order); 3. structure within a cell (thirdorder). Despite its promise, drug delivery has not yet reached common practice, especially for the third-order targeting (for example in gene therapy). The diversity of bacteria and viruses allows them to infect human being at the different levels. It may be possible to mimic many of the beneficial properties of the viruses with safe, non-toxic materials.

Biomaterials provide versatile chemistry with a wide variety of different functionalities. Great advances have been and are being made in biomaterials, nanoscale biomimetic materials and nano drug delivery system. This issue of the Mini Reviews in Medicinal Chemistry aims to focus on the drug delivery systems based on biomaterials.

### Key words:

Biomaterials , drug delivery, bacteria, viruses, nanoscale, gene therapy.

### Subtopics:

Biodegradable amphiphilic diblock copolymers as biomaterials for drug delivery

Peptide-based biomaterials for protease-enhanced drug delivery

Peptide-based stimuli-responsive biomaterials

### Schedule:

Manuscript submission deadline:	December 2011
Peer Review Due:	February 2012
Revision Due:	March 2012
Notification of acceptance by the Guest Editor:	March 2012
Final manuscripts due:	April 2012