Tentative Outline

Special Issue for Current Organic Chemistry

Guest Editor(s): Dr. Huaping Tan

TITLE: Advances in Organic Chemistry for Biocompatible Hydrogels

Aims & Scope:

Biocompatible hydrogels have great potential in the field of drug delivery and tissue regenerative medicine. Over the past decade, a variety of biomaterials, such as chitosan, alginate, hyaluronan, heparin, chondroitin sulfate, cellulose, fibrin, collagen and gelatin, have been utilized to form hydrogels for tissue engineering and drug delivery applications. Biocompatible hydrogels are appealing cell scaffolds and drug carriers because they have excellent biocompatibility and are structurally similar to the extracellular matrix of natural tissues. Development of novel biomaterial-based hydrogels with high bioactivity, suitable mechanical performance and controlled architecture would greatly broaden the application for tissue regeneration. This special issue focuses on recent advances of biocompatible hydrogels in the field of tissue engineering and drug delivery. It covers all aspects of biocompatible hydrogels research, from material processing, development, characterization to application. It particularly encourages an interdisciplinary research activity to the investigation of multifunctional biopolymers for hydrogels. We invite investigators to contribute original research articles and comprehensive reviews on multifunctional biocompatible hydrogels.

Key words: Hydrogels, Biomaterials, Tissue engineering, Drug delivery, Cell scaffolds

Subtopics:

- Cellulose-based hydrogels for drug delivery and tissue engineering applications
- Polymeric hydrogel-based scaffolds for adipose regeneration
- Injectable systems and implantable conduits for peripheral nerve repair
- Injectable graphene oxide/biopolymer composite supramolecular hydrogels for delivery of anti-cancer drugs
- Biocompatible hydrogels as contact lenses for ophthalmic drug delivery

Approximate Schedule:

- Manuscript submission deadline: July 31’ 2015
- Peer review due: August 31’ 2015
- Revision due: October 15’ 2015
- Notification of Acceptance by the Guest Editor: October 31’ 2015
- Final manuscript Due: November 30’ 2015