

Tentative Outline

Special Issue for CURRENT DRUG TARGETS

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IMAGE-GUIDED DRUG DELIVERY

Aim & Scope:

Cancer is one of the leading causes of death around the world. It is estimated that there were about 13 million cancer cases and > 7 million cancer deaths each year globally. With the development of new anti-cancer drugs with better efficacy and fewer side effects, accurate and efficient delivery of these agents to the tumor sites in cancer patients is of utmost importance. For successful delivery of anti-cancer drugs, many aspects have to be optimized simultaneously including encapsulation, targeting, delivery, and controlled release.

Image-guided drug delivery (IGDD) is a therapeutic method where tumor localization and drug delivery are guided and monitored through non-invasive imaging. The goal in IGDD is to optimize specific delivery of the therapeutic agents to the target tissue and provide anatomical and functional imaging feedback of the therapeutic processes. Quantitative imaging is an invaluable tool for target characterization (e.g. detection, localization, and pathology), as well as investigation of the pharmacokinetics (PK) and pharmacodynamics (PD) of therapeutic uptake and efficacy across different spatial and functional resolution scales.

Keywords:

Cancer; drug delivery; imaging; nanomedicine; positron emission tomography (PET); regenerative medicine

Subtopics:

Image-guided delivery of small molecule drugs

Image-guided delivery of siRNA/miRNA

Image-guided delivery of therapeutic cells

Image-guided drug delivery with positron emission tomography

Image-guided drug delivery with ultrasound

Image-guided drug delivery with magnetic resonance imaging

Image-guided delivery of nanomedicine

Image-guided drug delivery in cardiovascular diseases

Schedule:

Manuscript submission deadline:	October 2014
Peer Review Due:	December 2014
Revision Due:	February 2015
Notification of acceptance by the Guest Editor:	March 2015
Final manuscripts due:	April 2015