BioMed Research International

Special Issue on
Modern Approaches to Quality Assurance of Drug Formulations

CALL FOR PAPERS

Developments in pharmaceutical sciences have resulted in sophisticated systems to modify drug action by delaying its onset, slow the rate of delivery to reduce side effects, or maintain constant plasma levels to sustain drug action. More novel modes of delivery have also gained prominence. These may provide, for example, transdermal drug delivery and time-based (chronotherapeutic) release or may target specific organs, tissues, or cellular structures as in cancer therapy. Numbers of biopharmaceutical products have also increased greatly in recent times and will probably continue to do so.

Novel systems, therapeutic agents, and evolving paradigms on quality assurance present many challenges. At the same time they afford opportunities for developing and propounding new philosophies and technologies for assuring quality and performance. In particular, they promise reduced emphasis on end product testing if dosage form design and manufacture is appropriate, with testing of input materials and in-process testing/monitoring largely replacing end product testing. The same principles apply to quality assurance of devices used for sophisticated delivery because these too may influence parameters such as amount, rate, and possibly time of drug delivery.

With these considerations in mind we invite authors to submit original research or review articles related to these developments. Articles might concern but need not be restricted to:

- The active pharmaceutical ingredient
- Dosage form design
- The process for product manufacture
- Assurance of product quality and performance

Topics can include analytical as well as process technologies and how these might complement each other.

Potential topics include, but are not limited to:

- Development and testing of novel/innovative dosage forms
- Development and testing of multifunction excipients
- Preparation, characterization, formulation, and testing of nanoparticles
- Preparation, characterization, and utilization of pharmaceutical cocrystals and solid dispersions
- Innovative analytical techniques and their applications in process monitoring, analysis, and control
- Dynamic dissolution approaches, in vitro-in vivo correlation
- Quality assurance/control of active pharmaceutical ingredients, excipients, packaging, devices, and finished dosage forms
- Solid state forms of drugs and excipients: analytical assessment and consequences for process and quality attributes
- PAT applications in manufacture
- Regulatory acumen
- Drug counterfeiting and how to counteract it

Lead Guest Editor
Josef Jampilek, University of Veterinary and Pharmaceutical Sciences Brno, Brno-Královo Pole, Czech Republic
josef.jampilek@gmail.com

Guest Editors
Patrick J. Crowley, Callum Consultancy, Devon, USA
patrick@callumconsultancy.com

Mark Olsen, Midwestern University, Downers Grove, USA
molsen@midwestern.edu

Kin Tam, University of Macau, Macau, China
kintam@umac.mo

Manuscript Due
Friday, 19 September 2014

First Round of Reviews
Friday, 12 December 2014

Publication Date
Friday, 6 February 2015