

Tentative Outline
Special Issue for Current Drug Metabolism

Guest Editor: Dr. Zheyi Hu

Study and Prediction of Pharmacokinetic Drug-Drug Interactions

Aims & Scope:

Drug-drug interactions (DDIs) can lead to serious adverse drug reactions. A pharmacokinetic (PK) DDI occurs when the enzyme and/or transporter activities involved in the absorption, distribution, metabolism, or excretion of a drug was altered by another concomitant drug. Predicting DDIs is of great interest to the pharmaceutical industry and regulatory authorities. This special issue will cover all aspects of the study and prediction of PK DDIs including but not limited to in vitro methodologies, animal models, physiologically based pharmacokinetic modeling (PBPK), and other modeling and simulation approach.

Keywords: Drug-drug interaction; Physiologically based pharmacokinetic modeling; Pharmacokinetics; Drug transporters; Drug metabolism enzymes; Drug metabolites; Polymorphisms; Herbal medicine.

Subtopics:

- New preclinical methodologies and technologies in the study and prediction of DDIs
- Role of drug metabolism enzymes (including phase I and phase II) and/or drug transporters in the DDIs
- The impact of polymorphisms of drug metabolism enzymes and drug transporters on the DDIs
- The contribution of drug metabolites to DDIs
- Physiologically based pharmacokinetic modeling in the prediction of DDIs
- Other new modeling and simulation approach in the prediction of DDIs
- Comparison and application of commercial software in the prediction of DDIs
- Interactions between herbal medicines (or food) and prescribed drugs

Schedule:

Final manuscripts due: November 2014