

# 5<sup>th</sup> World Congress on **Bioavailability and Bioequivalence** Pharmaceutical R&D Summit

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## **Design of drug delivery system for poorly water soluble drugs with enhanced bioavailability**

Poor water solubility of many new chemical entities in pharmaceutical industry's pipeline as well as API in many marketed drugs present a major challenge in developing and optimizing safe and bioavailable dosage forms for testing on animals or human. Current solubilization and drug delivery technologies for water insoluble drug are summarized. The key considerations in rational design of safe and bioavailable drug delivery systems are explained. Applications of drug delivery technologies such as solid dispersion, nanoemulsion, and nanoparticles that enable testing of compound safety and efficacy at discovery, clinical and life cycle management stages are presented.

### **Biography**

Jim Jingjun Huang received his PhD in Pharmaceutics from the University of the Sciences in Philadelphia (formerly Philadelphia College of Pharmacy and Sciences). He has 15 years of experience in preclinical and clinical formulation development of a variety of oral and parenteral dosage forms through his industrial experience with Wyeth, Baxter, Astra Zeneca, and Hoffmann-La Roche. His research interests are centered on solubilization and delivery of poorly water-soluble drugs. His publications include studies on drug solubilization and controlled delivery in polymeric solid dispersion systems, amorphous drug delivery systems, etc. He credits several publications in peer-reviewed international journals, presentations at international pharmaceutical conferences, and patent publication. He has been invited to serve as a reviewer for Journal of Pharmaceutical Sciences, International Journal of Pharmaceutics, Journal of Controlled Release, Drug development and Industrial Pharmacy, Molecular Pharmaceutics, Pharmaceutical Research, and PDA Journal of Pharmaceutical Science and Technology. Currently, he is a member of American Association of Pharmaceutical Scientists (AAPS) and American Chemical Society (ACS).

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