

# 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

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Poor water solubility of more than 60% of new chemical entity present a major hurdles in the design of suitable drug delivery systems for the market dosage form. Current controlled-release drug technologies for water insoluble drug are summarized. The key considerations in design of controlled release dosage forms, such as drug physic-chemical and biopharmaceutical properties, in-vitro and in-vivo correlation, and key material and process attributes for the robust manufacturing and reproducible performance of the product are presented. The multidisciplinary collaboration between CMC, biopharm, clinical, M&S, and marketing teams were found critical for the successful development of controlled release dosage forms with enhanced bioavailability.

### 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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