

## The Bioavailability challenges for herbal medicinal products (HPMs): A need of biopharmaceutical approach

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In the regulatory process, efficacy, safety and appropriate pharmaceutical quality are to be assist for all medicinal products intend for human use. However, due to their complex composition, such information is not available at the moment for most herbal medicinal products. So far, there is a significant lack of experience and scientific knowledge regarding biopharmaceutics of herbal medicinal products. The necessity of *in vivo* studies for a biopharmaceutical characterization of the product depends on the solubility and permeability properties of the active drug ingredients as well as the dissolution behavior of herbal dosage form. Evidence based verification of the efficacy of HMPs is still frequently lacking. A better understanding of the Pharmacokinetics can help in designing rationale dosage regimens. In this regard, Pharmacokinetic studies for HMPs have been conducted for phyto pharmaceuticals and they should be critically evaluated by sensitive analytical methods to assess the elimination routes and their kinetics. With the knowledge of kinetics and the dissolution techniques the research in the IVIVC (*In- Vitro-In-Vivo* Correlation) comes into an account. In the following, a first attempt is made to adapt the general policy of the biopharmaceutical characterization of solid oral dosage forms to herbal medicinal products. The present study attempts to fit herbals into biopharmaceutical classification system with formulation consideration and to carry out the meaningful dissolution techniques, assessment of pharmacokinetics, IVIVC and to bring safety and efficacious of herbal medicinal products.

### Biography

K Gowthamarajan has been working as a professor and Head, Department of Pharmaceutics, JSS College of Pharmacy (JSS University) Uhagamadalam, TamilNadu, India. He has more than 17 years academic and research experience. For last decade, he has been actively involved in guiding Research Scholars and he published more than 50 papers in national and international journals. To his credit he has 17 Indian patents. Being a contract research co-coordinator, he successfully completed the various industrial projects including BA/BE studies. He has received various reputed awards and honors. Recently, his one the research out comes was highlighted in Nature Review.

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