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## TITLE

### **UNDERSTANDING THE SIGNIFICANCE OF IN-VITRO/IN-VIVO CORRELATION IN PHARMACOKINETIC PREDICTIONS**

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In-vitro In-vivo correlation (IVIVC) plays a considerable role in predicting the performance of many complicated drug delivery systems. Major factors that determine the accuracy of IVIVC are fluid dynamics and particle transport. Biorelevant dissolution media have been recommended to achieve the required conditions of the gastrointestinal tract. However, the simulation of other physiological conditions encountered in practical circumstances needs to be addressed. Keeping this in view, different mathematical models have been designed. They attempt to predict the in-vivo performance. In-vitro systems try to simulate dynamic physiological environmental conditions. In-silico tools assist in studying dissolution behavior, molecule stability, drug release and absorption characteristics. This presentation highlights important aspects of IVIVC and comprehends the significance in design of pharmaceutical products.