Bayesian applications in drug development

Heinz Schmidli, Novartis, Statistical Methodology

Before the seminal paper by Racine et al. (1986), Bayesian methods were almost non-existent in drug research and development. Since then, Bayesian approaches have been increasingly applied in pharmaceutical industry. The first Bayesian applications focused on pre-clinical or early clinical phases of drug development, and on pharmacokinetics. In the 21st century, Bayesian methods are used in all phases of drug development, covering evidence synthesis and prediction, adaptive clinical trial designs, decision making and many other areas. This talk will provide an overview of Bayesian applications in drug development.