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Collana	AAPS Introductions in the Pharmaceutical Sciences, , 2522-8358 ; ; 9
Disciplina	615.7
Soggetti	Drug delivery systems Drugs - Design Pharmaceutical chemistry Metabolism Pharmacology Clinical biochemistry Drug Delivery Structure-Based Drug Design Pharmaceutics Medical Biochemistry
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Nota di contenuto	Pharmacokinetics -- Chapter 1: Current status in PBPK modeling -- Chapter 2: Physiologically based biopharmaceutics modeling (PBBM) Application on Food Effect Assessment -- Chapter 3: Physiologically based finite time pharmacokinetic (PBFTP) models: Inception and development -- Chapter 4: Physiologically based finite time pharmacokinetic (PBFTP) models: Applications -- Pharmacodynamics -- Chapter 5: Pharmacokinetic – Pharmacodynamic Modelling and Simulation in Clinical Practice and Studies -- Chapter 6: On the Verge of Impossibility: Accounting for Variability Arising from Permutations of Comorbidities that Affect the Fate of Drugs in the Human Body -- Chapter 7: Impact of Clinical Pharmacology on the Modernization of Drug Development and Regulation.

Sommario/riassunto

This book provides a concise overview of recent advances in Pharmacokinetics (PK) and Pharmacodynamics (PD). The pharmacokinetics section covers the state of the art in Physiologically Based Pharmacokinetic (PBPK) modeling (Chapter 1) as well as the assessment of food effect on drug absorption using PBPK modeling (Chapter 2). Chapters 3 and 4 describe the recent development of Physiologically Based Finite Time Pharmacokinetic (PBFTP) models and their applications to pharmacokinetic data. The pharmacodynamics section focuses on PK/PD modeling. Chapter 5 provides an overview of PK/PD modeling and simulation in clinical practice and studies. Chapter 6 deals with the subject/physiology variability issue encountered in PK/PD studies, while Chapter 7 reviews the influence of clinical pharmacology in the modernization of drug development and regulation. This book is an essential reference for pharmaceutical scientists.