Physiologically-Based Pharmacokinetic (PBPK) Modeling and Simulations: Principles, Methods, and Applications in the Pharmaceutic

Designed for a wide audience encompassing readers looking for a brief overview of the field as well as those who need more detail, the book includes a range of important learning aids.

Physiologically-based pharmacokinetic (PBPK) modeling has become increasingly widespread within the pharmaceutical industry over the last decade, but without one dedicated book that provides the information researchers need to learn these new techniques, its applications are severely limited. Describing the principles, methods, and applications of PBPK modeling as used in pharmaceutics, Physiologically-Based Pharmacokinetic (PBPK) Modeling and Simulations fills this void.

Connecting theory with practice, the book explores the incredible potential of PBPK modeling for improving drug discovery and development. Comprised of two parts, the book first provides a detailed and systematic treatment of the principles behind physiological modeling of pharmacokinetic processes, inter-individual variability, and drug interactions for small molecule drugs and biologics. The second part looks in greater detail at the powerful applications of PBPK to drug research.

Featuring end-of-chapter keywords for easy reference - a valuable asset for general or novice readers without a PBPK background - along with an extensive bibliography for those looking for further information, Physiologically-Based Pharmacokinetic (PBPK) Modeling and Simulations is the essential single-volume text on one of the hottest topics in the pharmaceutical sciences today.