Evaluation of Drug Candidates for Preclinical Development: Pharmacokinetics, Metabolism, Pharmaceutics, and Toxicology

Chao Han (Editor), Charles B. Davis (Editor), Binghe Wang (Editor)

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DESCRIPTION

Emphasizes the integration of major areas of drug discovery and their importance in candidate evaluation.

It is believed that selecting the "right" drug candidate for development is the key to success. In the last decade, pharmaceutical R&D departments have integrated pharmacokinetics and drug metabolism, pharmaceutics, and toxicology into early drug discovery to improve the assessment of potential drug compounds. Now, Evaluation of Drug Candidates for Preclinical Development provides a complete view and understanding of why absorption-distribution-metabolism-excretion-toxicology (ADMET) plays a pivotal role in drug discovery and development.

Encompassing the three major interrelated areas in which optimization and evaluation of drug developability is most critical—pharmacokinetics and drug metabolism, pharmaceutics, and safety assessment—this unique resource encourages integrated thinking in drug discovery. The contributors to this volume:

- Cover drug transporters, cytochrome P-450 and drug-drug interactions, plasma protein binding, stability, drug formulation, preclinical safety assessment, toxicology, and toxicokinetics.

- Address developability issues that challenge pharma companies, moving beyond isolated experimental results.
Reveal connections between the key scientific areas that are critical for successful drug discovery and development

Inspire forward-thinking strategies and decision-making processes in preclinical evaluation to maximize the potential of drug candidates to progress through development efficiently and meet the increasing demands of the marketplace

Evaluation of Drug Candidates for Preclinical Development serves as an introductory reference for those new to the pharmaceutical industry and drug discovery in particular. It is especially well suited for scientists and management teams in small- to mid-sized pharmaceutical companies, as well as academic researchers and graduate students concerned with the practical aspects related to the evaluation of drug developability.

ABOUT THE AUTHOR

Chao Han, PHD, is Associate Director of Pharmacokinetics, Modeling and Simulation, Clinical Pharmacology Sciences, Centocor R&D. He has been working in drug discovery and early development for more than ten years, published over thirty research articles in peer-reviewed journals, and written three book chapters.

Charles B. Davis, PHD, heads Drug Metabolism and Pharmacokinetics for the cancer Metabolism Drug Discovery Unit within Cancer Research at GlaxoSmithKline. He has more than twenty years experience in preclinical and clinical development and has served on the leadership teams of three of GSK's Centers of Excellence in Drug Discovery.

Binghe Want, PHD, is Professor and Georgia research Alliance Eminent Scholar in Drug Discovery in the Department of Chemistry, Georgia State University and Georgia cancer Coalition Distinguished Scientist. He also serves as editor in chief of Medicinal research Reviews and is lead editor of Drug Delivery: Principles and Applications (Wiley).

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