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Nota di contenuto	DRUG-DRUG INTERACTIONS IN PHARMACEUTICAL DEVELOPMENT; CONTENTS; Preface; Contributors; 1 In Vitro Evaluation of Metabolic Drug-Drug Interactions: Concepts and Practice; 1.1 Introduction; 1.2 Mechanisms of Adverse Drug-Drug Interactions; 1.2.1 Pharmacological Interactions; 1.2.2 Pharmacokinetic Interactions; 1.3 Drug Metabolism; 1.3.1 Phase I Oxidation; 1.3.2 Phase II Conjugation; 1.4 CYP Isoforms; 1.5 Human In Vitro Experimental Systems for Drug Metabolism; 1.5.1 Hepatocytes; 1.5.2 Liver Postmitochondrial Supernatant (PMS); 1.5.3 Human Liver Microsomes; 1.5.4 Recombinant P450 Isoforms (rCYP) 1.5.5 Cytosol1.6 Mechanisms of Metabolic Drug-Drug Interactions; 1.7 Mechanism-Based Approach for Evaluation of Drug-Drug Interaction Potential; 1.7.1 Metabolic Phenotyping; 1.7.2 Evaluation of Inhibitory Potential for Drug-Metabolizing Enzymes; 1.7.3 Induction Potential for Drug-Metabolizing Enzymes; 1.8 Experimental Approaches for In Vitro Evaluation of Drug-Drug Interaction Potential; 1.8.1 Study 1: Metabolic

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1.8.3 Study 3: Metabolic Phenotyping 3-Identification of P450 Isoform Pathways (P450 Phenotyping)1.8.4 Study 4: CYP Inhibitory Potential; 1.8.5 Study 5: Enzyme Induction Potential; 1.8.6 Study 6: In Vitro Empirical Drug-Drug Interactions; 1.9 Data Interpretation; 1.9.1 Pathway Evaluation; 1.9.2 P450 Inhibition; 1.9.3 P450 Induction; 1.10 Conclusion; References; 2 In Vitro Approaches to Anticipating Clinical Drug Interactions; 2.1 In Vitro Systems for Human CYP450 Metabolism; 2.1.1 Incubation Buffer (pH and Ionic Strength); 2.1.2 MgCl(2) and Cytochrome b(5); 2.1.3 Nonspecific Binding  
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3 Inhibition of Drug-Metabolizing Enzymes and Drug-Drug Interactions in Drug Discovery and Development

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## Sommario/riassunto

Drug-Drug Interactions in Pharmaceutical Development comprehensively reviews the relevant science, industrial practice, and regulatory agency positions on drug-drug interactions. It focuses on the evaluation of potential drug-drug interactions, allowing researchers to address risk factors before a drug is put to market. The book covers both clinical and nonclinical aspects for understanding drug-drug interactions as well as in vitro and in vivo studies for use in studying interactions at the drug discovery stage.

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