

a. Pharmacodynamics

1. Primary Pharmacodynamics

In Vivo

- "In vivo Pharmacodynamics"[MeSH]
- "Animal Models"[MeSH]
- "Dose-Response Relationship, Drug"[MeSH]
- "Drug Effects"[MeSH]
- "Receptor Binding"[MeSH]
- "Therapeutic Effect"[tiab]
- "Pharmacologic Action"[tiab]
- "Signal Transduction"[tiab]
- "Dynamic Drug Concentrations"[tiab]

In Vitro

- "In vitro Pharmacodynamics"[MeSH]
- "Cell Line, Tumor"[MeSH]
- "Receptor Ligand Binding"[MeSH]
- "Enzyme Inhibition"[MeSH]
- "Binding Assay"[tiab]
- "Cell Culture Technique"[MeSH]
- "In vitro Antimicrobial Activity"[MeSH]

2. Secondary Pharmacodynamics

- "Secondary Pharmacological Actions"[tiab]
- "Off-Target Effects"[tiab]
- "Adverse Drug Reaction"[MeSH]
- "Non-Specific Drug Effects"[tiab]
- "Side Effects"[tiab]
- "Downstream Signaling"[tiab]

- "Pharmacological Profiling"[tiab]

#### Pharmacodynamic Drug Interaction

- "Pharmacodynamic Interaction"[MeSH]
- "Drug Synergism"[MeSH]
- "Drug Antagonism"[MeSH]
- "Drug Interaction"[MeSH]
- "Receptor Competition"[tiab]
- "Effect Modification"[tiab]
- "Therapeutic Drug Monitoring"[MeSH]

#### b. Safety Pharmacology

##### 1. Effect on Central Nervous System (CNS)

- "Central Nervous System"[MeSH]
- "Neurotoxicity"[MeSH]
- "Behavioral Toxicity"[MeSH]
- "Neuropharmacology"[MeSH]
- "Seizures"[MeSH]
- "Locomotor Activity"[MeSH]
- "Cognitive Dysfunction"[MeSH]
- "Neurotransmitter Release"[tiab]
- "Motor Coordination"[tiab]

##### 2. Effect on Cardiovascular System (CVS)

- "Cardiovascular System"[MeSH]
- "Cardiotoxicity"[MeSH]
- "Electrocardiography"[MeSH]
- "QT Interval"[MeSH]
- "hERG Channel"[tiab]
- "Arrhythmia"[MeSH]
- "Hemodynamics"[MeSH]
- "Blood Pressure"[MeSH]

- "Heart Rate"[MeSH]

### 3. Other Effects

- "Respiratory System"[MeSH]
- "Respiratory Function Tests"[MeSH]
- "Renal Toxicity"[MeSH]
- "Hepatotoxicity"[MeSH]
- "Gastrointestinal Toxicity"[MeSH]
- "Genotoxicity"[MeSH]
- "Immunotoxicity"[MeSH]
- "Toxicity Testing"[MeSH]
- "Animal Welfare"[MeSH]

### c. Pharmacokinetics

#### 1. Method of Analysis

- "Pharmacokinetics"[MeSH]
- "Bioanalytical Techniques"[MeSH]
- "Liquid Chromatography-Mass Spectrometry"[MeSH]
- "Quantitative Assay"[MeSH]
- "Bioanalytical Method Validation"[tiab]
- "Analytical Method Development"[tiab]
- "Sample Preparation"[tiab]

#### 2. Absorption

- "Drug Absorption"[MeSH]
- "Bioavailability"[MeSH]
- "First-Pass Effect"[MeSH]
- "Gastrointestinal Absorption"[tiab]
- "Drug Solubility"[tiab]
- "Permeability"[tiab]

#### 3. Distribution

- "Drug Distribution"[MeSH]
- "Volume of Distribution"[tiab]
- "Plasma Protein Binding"[MeSH]
- "Tissue Distribution"[tiab]
- "Blood-Brain Barrier"[MeSH]

#### 4. Metabolism

- "Drug Metabolism"[MeSH]
- "Cytochrome P450 Enzymes"[MeSH]
- "Phase I Metabolism"[tiab]
- "Phase II Metabolism"[tiab]
- "Enzyme Induction"[MeSH]
- "Metabolite Profiling"[tiab]

#### 5. Excretion

- "Drug Excretion"[MeSH]
- "Renal Clearance"[MeSH]
- "Biliary Excretion"[tiab]
- "Glomerular Filtration Rate"[MeSH]
- "Excretion Rate"[tiab]

#### 6. Other Pharmacokinetics Studies

- "Pharmacokinetic Variability"[MeSH]
- "Dose Proportionality"[tiab]
- "Pharmacokinetic Modeling"[tiab]
- "Non-Compartmental Analysis"[tiab]
- "Therapeutic Drug Monitoring"[MeSH]

#### d. Toxicology

##### 1. Single Dose Toxicity

- "Acute Toxicity"[MeSH]
- "Single Dose Toxicity"[tiab]

- "Dose Escalation"[tiab]
- "Toxicological Evaluation"[tiab]

## 2. Repeat Dose Toxicity

- "Subchronic Toxicity"[MeSH]
- "Chronic Toxicity"[MeSH]
- "Repeat Dose Toxicity"[tiab]
- "Toxicity Studies"[tiab]
- "Dose-Response Relationship, Drug"[MeSH]

## 3. Genotoxicity

- "Genotoxicity Tests"[MeSH]
- "Mutagenicity Tests"[MeSH]
- "DNA Damage"[MeSH]
- "Chromosome Aberrations"[MeSH]
- "Ames Test"[tiab]

## 4. Carcinogenicity

- "Carcinogenicity"[MeSH]
- "Neoplasms, Experimental"[MeSH]
- "Tumor Promotion"[tiab]
- "Oncogenesis"[MeSH]

## 5. Reproductive and Developmental Toxicity

### Fertility and Early Embryonic Development

- "Fertility Regulation"[MeSH]
- "Early Embryonic Development"[tiab]

### Embryo Foetal Development

- "Embryo-Fetal Toxicity"[tiab]
- "Foetal Development"[MeSH]

### Prenatal and Postnatal Development

- "Prenatal Exposure Delayed Effects"[MeSH]
- "Postnatal Development"[tiab]

## 6. Local Tolerance

- "Local Toxicity"[tiab]
- "Irritation Tests"[MeSH]
- "Sensitization"[MeSH]
- "Dermal Toxicity"[MeSH]

## 7. Other Toxicity Studies

- "Immunotoxicity"[MeSH]
- "Nephrotoxicity"[MeSH]
- "Hepatotoxicity"[MeSH]
- "Neurotoxicity"[MeSH]
- "Toxicokinetics"[MeSH]
- "Organ Toxicity"[tiab]