

**I. Pharmacodynamics**

1. receptor
2. ligand
3. agonist
4. antagonist

**II. Signal Transduction**

**A. Receptors**

1. ligand-gated ion channels
2. G protein-coupled receptors
3. enzyme-linked receptors
4. intracellular receptors

**B. Characteristics of signal transduction**

1. amplification
2. desensitization

**III. Dose-Response Relationships**

**A. Measurements**

1.  $ED_{50}$
2.  $EC_{50}$
3.  $IC_{50}$
4.  $LD_{50}$
5.  $LC_{50}$
6.  $TD_{50}$
7. MM curve

**B. Potency**

**C. Efficacy**

**IV. Intrinsic Activity**

**A. Agonists**

1. full agonists
2. partial agonists
3. inverse agonists

**B. Antagonists**

1. competitive antagonist
2. irreversible antagonists
3. allosteric antagonists

**V. Quantal Responses**

**A. Therapeutic index (TI)**