Receptor Hypothesis

- Actions are in some places and not others
- Act differently in different places
- Act at the level of the cell membrane
- Act only at receptors
  - Cell membrane receptor model
  - Intracellular membrane receptor model

Receptor Hypothesis: Intracellular

Receptor Hypothesis: Membrane

Mechanism of Action

- Activators
  - Phospholipase C and Adenylyl Cyclase
  - Example
- Deactivator
  - Cyclic nucleotide phosphodiesterases
- Transducers
  - G proteins
    - Gs, Gi, Go
    - IP3, DG

Hormone Effects

- Sensitivity
- Multiple Tissue Effects
- Receptor Specificity
- Regulation of receptor number
  - Up/down
- Cooperativity
- Desensitization
Hormone Effects

- Levels of effects
  - Different receptors
  - Different tranducers
  - Second messengers
  - Cells with different specializations
  - Dynamic action
  - Interaction

- Ended here