Neuroendocrine System

- neuroendocrine interactions
  - pituitary gland
    - posterior pituitary
    - anterior pituitary
    - endocrine gland located beneath hypothalamus
    - connected to periventricular nucleus of the hypothalamus via the **infundibulum**
- negative feedback
  - hormones enter brain, provide negative feedback to hypothalamus, ending PVN's release of hormones
  - reason for hormonal cycles
- hypothalamus
  - regulates homeostasis by influencing
    - endocrine system
    - ANS
    - diffuse modulatory system
  - located just below the thalamus (hypo - below)
  - nuclei
    - lateral
      - regulate eating
    - medial
      - lots of things, including regulating sexual behavior
    - periventricular
      - cells regulating the ANS
      - and neurosecretory cells
        - release hormones (neurotransmitters released in the bloodstream)
        - don't have dendrites or axons
- glands that communicate w/ organs via hormones into bloodstream
  - definition: any specialized chemical released into bloodstream and carried to target organs
  - target organs are any organs with receptors for hormone
  - promote generation, growth, or differentiation of cells
- body's active attempt to maintain constancy in all internal conditions despite changes in external environment
  - mechanisms
    - physiological
    - behavioral