## **Genetics**

- I. Genetics
  - A. The study of patterns of inheritance and variation in organisms
    - 1. Inheritance: Passing of traits from parents to offspring
- II. Gregor Mendel
  - A. "Father of Genetics"
  - B. Published his findings in 1865
    - 1. Concepts of Genetics
      - a. Law of Segregation
        - i. Organisms receive one copy from each parent
        - ii. These copies will be separated in gametes through meiosis
      - b. Law of Independent Assortment
        - i. Genes for different traits are inherited separately from each other
      - c. Rule of Dominance
        - i. If there are two versions of a trait, one dominant trait will mask the other recessive trait