Adaptive Immunity Chapter 17

I. Antigen (Ag)
  A.Epitopes
  B.Hapten

II. Antibody (Ab)
  A.Immunoglobulin (Ig)
  B.Structure
    1.Side to side
      1)Heavy chains
      2)Light chains
    2.Top to Bottom
      a. Function
        1)Fab
        2)Fc
      b. Sequence
        1)variable region
        2)constant region
  C.Classes
    1.IgM
    2.IgG
    3.IgA
    4.IgD
    5.IgE

III. Lymphocyte Development
  A.Diversity
  B.Development
  C.Selection
    1.positive selection
    2.negative selection
    3.T lymphocytes
      a. thymus
    4.B lymphocytes
      a. bone marrow
  D.Lymphoid tissue

IV. Ab production
  A.Exogenous Ags
  B.B lymphocytes
      a. bind
      b. internalize
      c. processe
      d. present
      e. waits
  C.T-Helper cells
      a. CD-4
    1.B cell Primary response
      a. clonal selection
      b. differentiation
        1)plasma cells
          a)titer
      c. class switching
      d. affinity maturation
    2.Secondary Response
      a. memory B cells

- D.T-Independent Ag

V.Ag-Ab binding results
- A.Neutralization
- B.Immobilization
- C.Agglutination & Precipitation
- D.Opsonization
- E.Complement activation
- F.ADCC

VI.Cellular Immunity
- A.Endogenous
  - 1.MHC class I
  - 2.cytotoxic T cell
    - a. CD 8
- B.Viral infection
  - 1.NK cells

VII.Review