Transplantation

- Rejection of foreign tissue grafts is due to immune responses to alloantigens on the graft
  - Blood group antigens
  - Polymorphic MHC antigens
  - Minor histocompatibility antigens

Alloantigen Presentation

- Direct recognition
  - MHC-peptide complexes on Donor APC are recognized directly by recipient T cells without processing by recipient APC
- Indirect recognition
  - Foreign MHC and other alloantigens are processed by recipient APC and presented to recipient T cells
Transplantation

- Rejection is mediated primarily by T cells but antibodies are also important
- Rejection occurs with the same timing as other immune responses
  - Hyperacute rejection
  - Acute Rejection: First-set rejection & Second set rejection
  - Chronic rejection
Graft vs. Host disease

- When immunocompetent T cells are transplanted into a tissue incompatible immunodeficient recipient the donor T cells recognize and reject the recipient
  - This is more of a problem in bone marrow transplantation but can occur in any grafting procedure