

Disorders of the Immune System

Allergy and Autoimmunity

Scope of Immunology

- Desirable Consequences of Immunity
 - Natural (innate) resistance
 - Adaptive, naturally-acquired immunity
 - Adaptive, artificially-acquired immunity (ie, vaccination)
- Undesirable Consequences of Immunity
 - Immunodeficiency (ie, failure)
 - Inappropriate or chronic inflammation
 - Hypersensitivity (eg, allergy)
 - Autoimmunity
 - Transplant rejection

Immunodeficiency

- Components of immune system are missing or non-functional
- Leads to increased susceptibility to infections
- Can be inherited due to defective genes (eg., SCID)
- Acquired Immunodeficiency Syndrome (AIDS)
 - Human Immunodeficiency Virus (HIV)
 - Infects and destroys macrophages and helper T-cells