

Immunology:

Lecture 1: Introduction to the immune system

Immunity: ① against environmental agents (foreign)

like microorganisms etc.

② foreign (recognize self vs non-self)

X immune system (self vs non-self identification) - Autoimmune Diseases

X immune system (attacking foreign factors) = Constantly Sick

Immune System

① Innate

② Adaptive

Barriers ← physical (skin)
chemical (pH)²
biological (mucus)

T cells, B cells with receptors.

• Against primary infections

• Non-specific

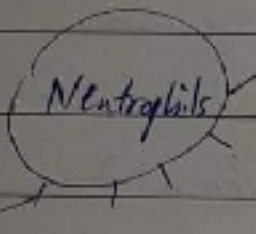
• Fast attacks

• No memory cells

• Very specific (using receptors)

• Very slow action (7 days)

• Memory cells



Neutrophils

few pattern recognition molecules (receptors) Attach to bacteria's LPS

Adaptive:

Antigen recognition molecules Specific bacteria like E. coli

Macrophages: Innate phagocytosis

Lymphocytes: Adaptive

Hapten + Carrier = immune response

only B lymphocytes can produce antibodies ~~*~~
vs antigens

Helicobacter pylori is a type of bacteria that lives in the stomach. It is part of the natural flora of the stomach. In case of immunosuppression, they can cause stomach sores/ulcers.