The Latin term “IMMUNIS” means EXEMPT, referring to protection against foreign agents.

**DEFINITION :**

The integrated body system of organs, tissues, cells & cell products that differentiates self from a non – self & neutralizes pathogenic organisms.
Various cells internalize (endocytose) and break down foreign macromolecules.

Specialized cells (blood monocytes, neutrophils, tissue macrophages) internalize, (phagocytose), kill, and digest whole microorganisms.

Natural killer cells (NK cells).
**Interferon:**
- a chemical (cytokine) produced by virus-infected cells that contributes to their death by apoptosis.

**Lysozyme:**
- hydrolytic enzyme found in mucous secretions and in tears.
- cleaves bacterial cell wall.

**Complement:**
- lyases microorganisms or facilitates phagocytosis.
Memory T cells

- Respond rapidly for many years after initial exposure to antigen
- A large number of memory cells are produced so that the secondary response is greater than the primary
- Memory cells live for many years and have the capacity to multiply
- They are activated by smaller amount of antigen
- They produce greater amounts of interleukins
Effector function of B cells

1. Nutralization of Microbs and toxins
2. Opsonization
3. Antibody dependant celluler toxicity
4. Activation of complement system.