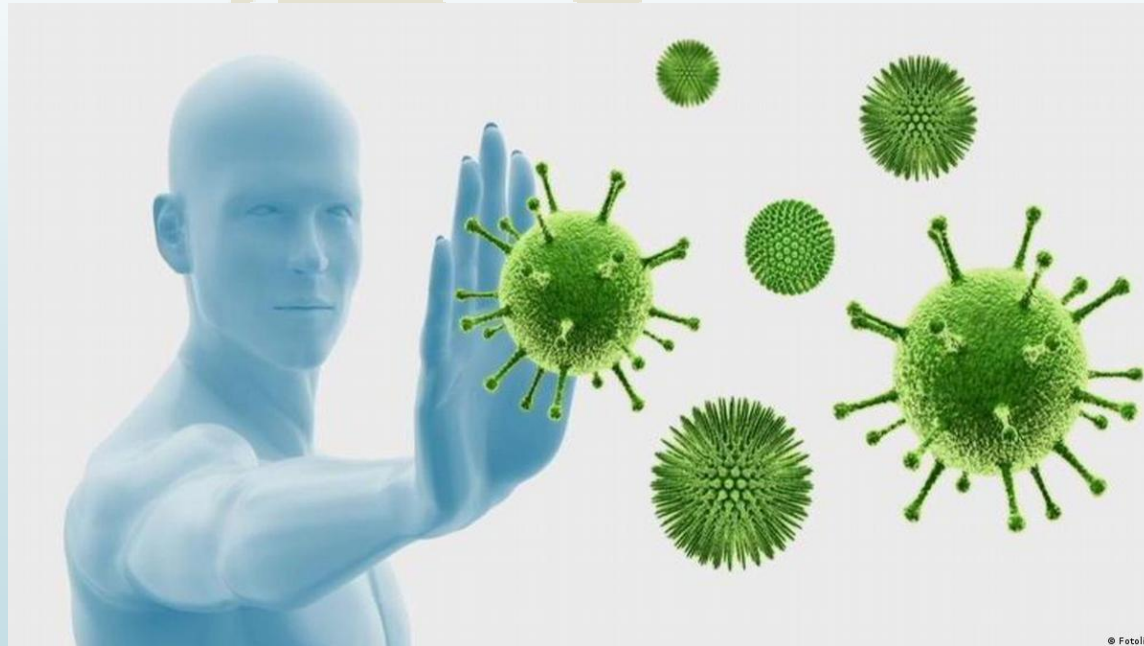


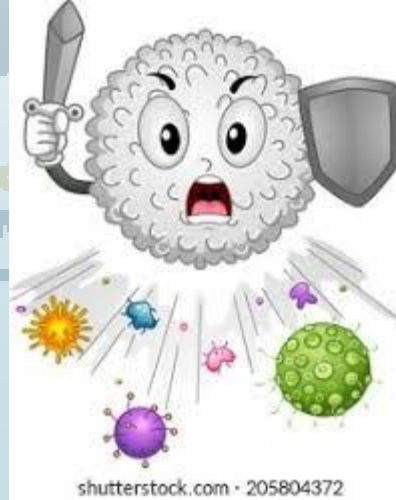
# Part II

## Immunology



## **\*Introduction**

- **Immunology:** is the science that studies the characteristics and the mechanism of the immune system.
- **Immune response:** is an immune reaction done by the immune system.

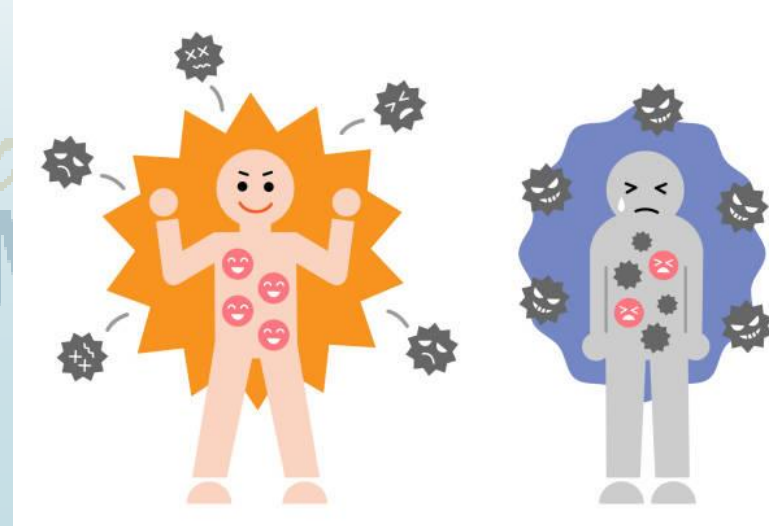


- **Immune system:** is a group of cells, organs and molecules that protect the body against foreign antigens.

→ **Self-Antigens:** Components of the body.

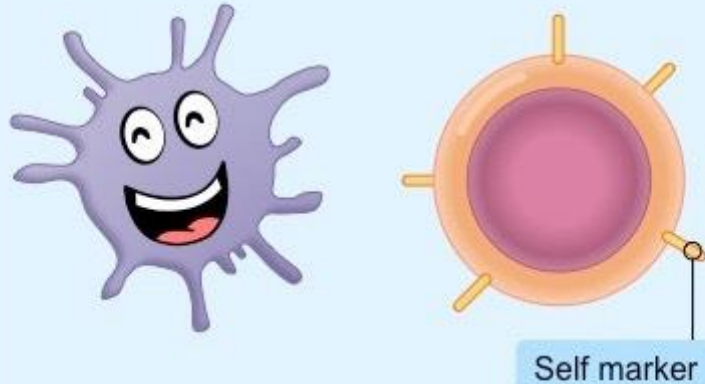
ex: HLA, organs, tissues cells.

→ **Non-self-antigens:** They are foreign molecules that invade our body. They cause an immune response to eliminate them.



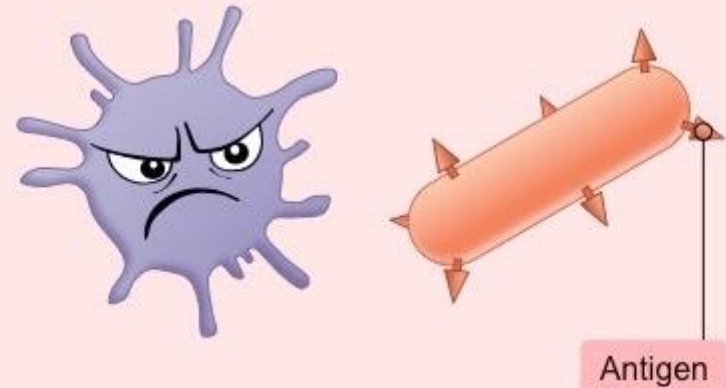
- **Role of the immune system:** is to differentiate between self to tolerate it, and non-self to attack it.

### IDENTIFYING SELF



A **self marker** (MHC) labels the body's cells as a 'friend' and are tolerated by the immune system.

### IDENTIFYING NON-SELF



An **antigen** is a molecule that the immune system recognises as foreign (non-self) and treats as a 'foe'.

- The main job of the immune system is to recognize **self** from **non-self** and attack and destroy non-self

