

THE IMMUNE SYSTEM

HOW IT WORKS

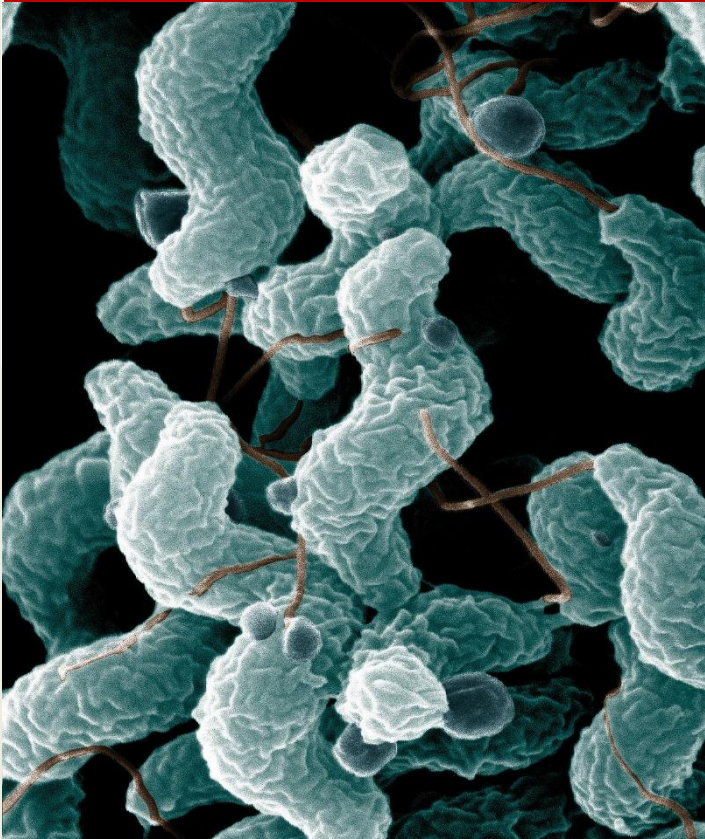
WHAT IS THE IMMUNE SYSTEM?



- **IT'S A VAST NETWORK OF CELLS, TISSUES AND ORGANS THAT COORDINATES YOUR BODIES' DEFENSES AGAINST ANY THREATS TO YOUR HEALTH**

TYPES OF PATHOGENES

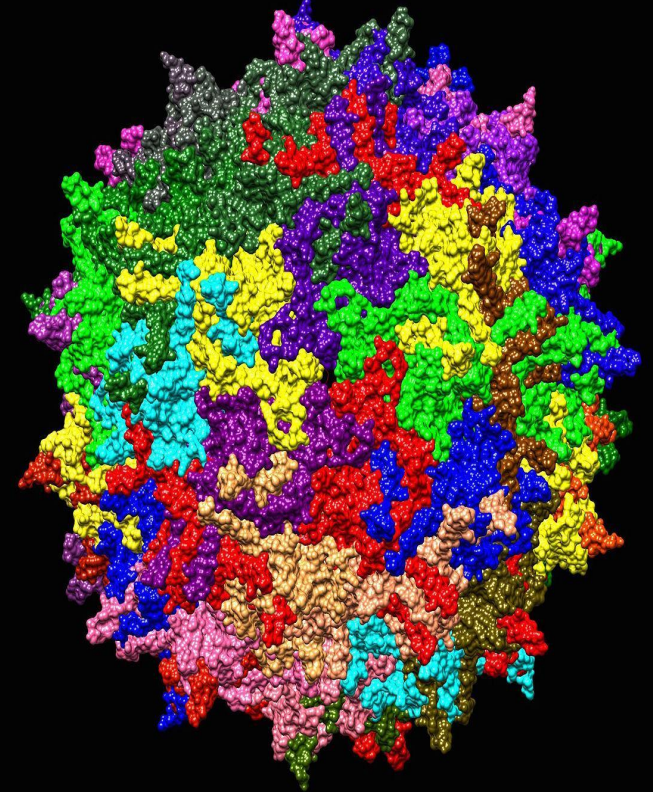
BACTERIA



FUNGI (грибы)

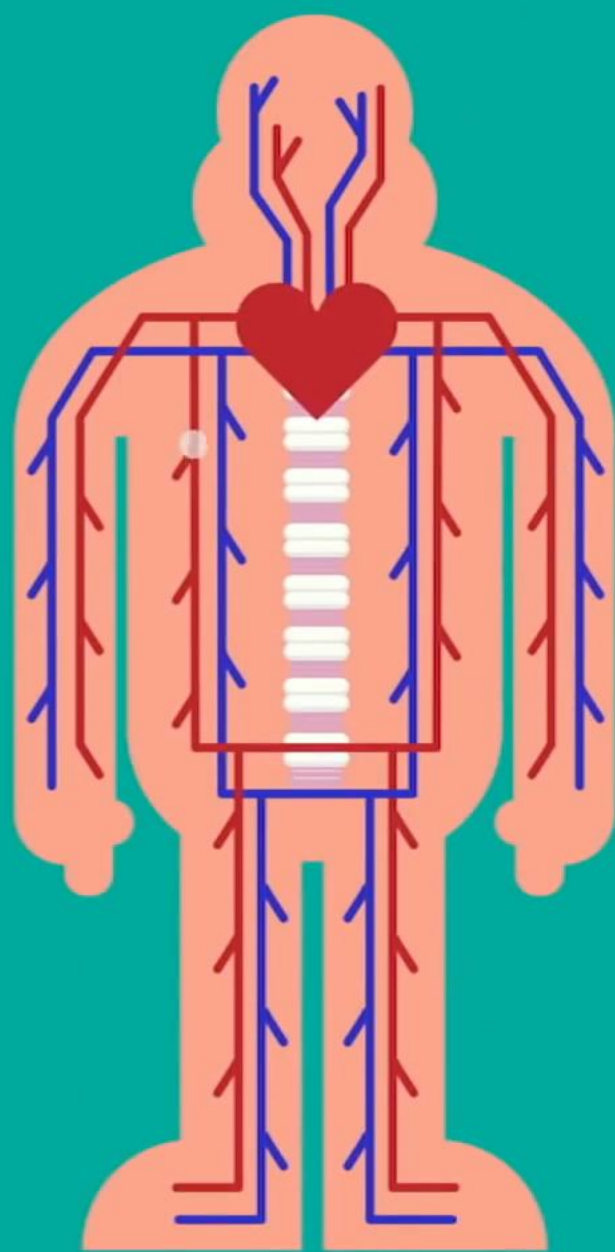


VIRUSES



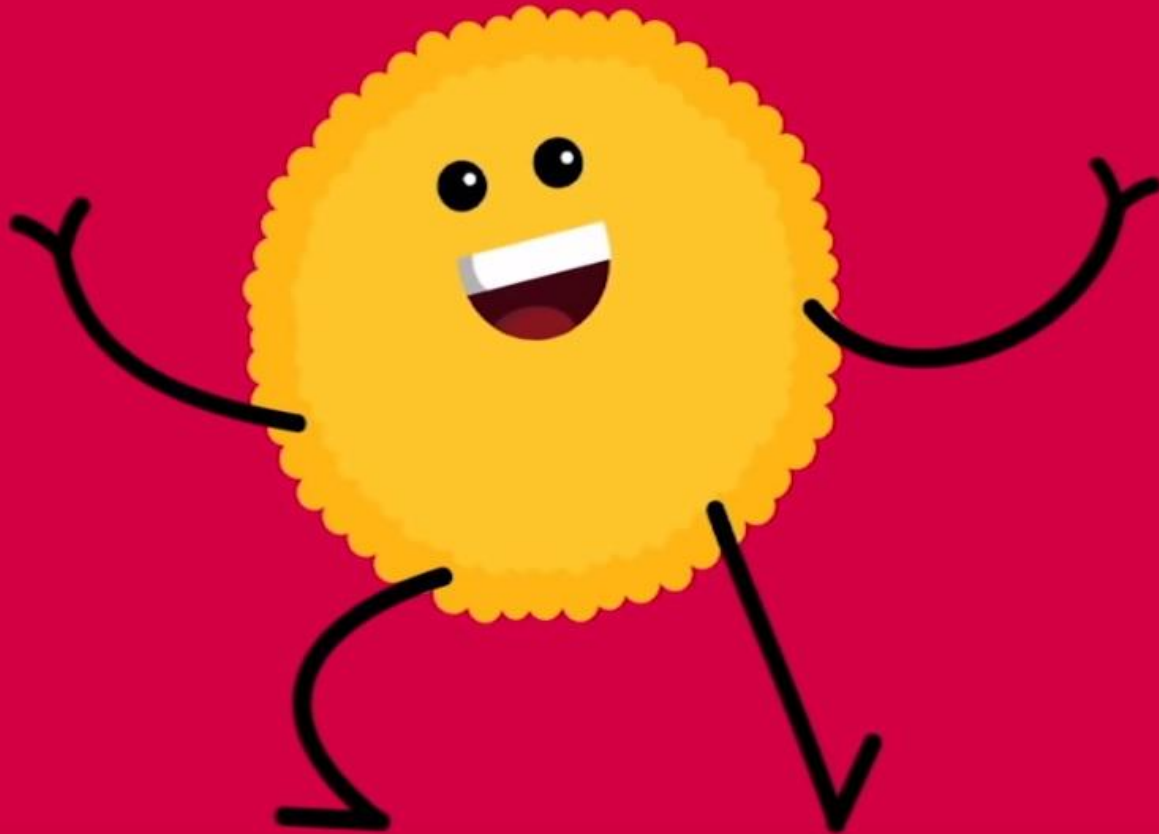
ORGANS

- Thymus (вилочковая железа)
- Spleen (селезенка)
- Bone marrow (костный мозг)
- Lymph nodes (лимфатические узлы)



TYPES OF LEUKOCYTES

PHAGOCYTE



LYMPHOCYTE



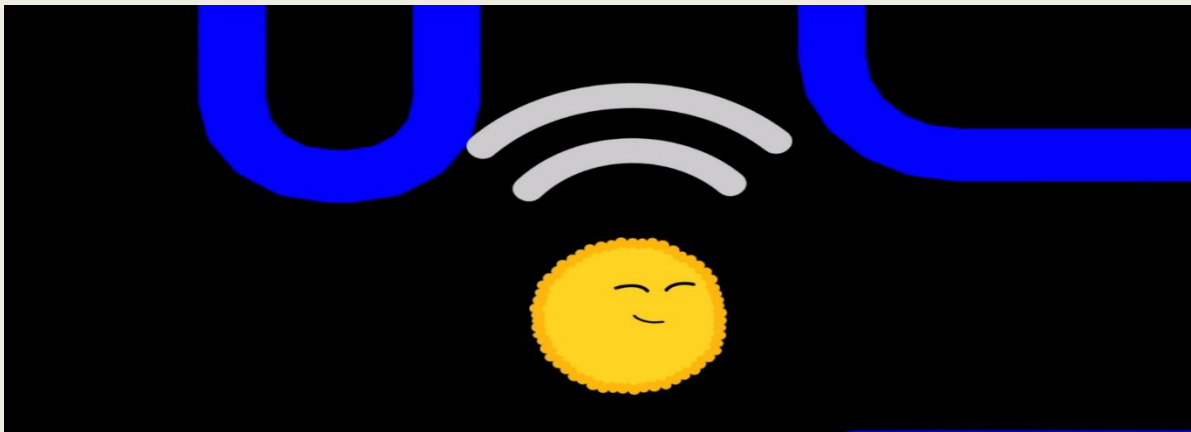
1) B-cells 2) T-cells (T-helpers and T-killers)

PHAGOCYTES

- Absorb the invaders they meet and identify the antigens of pathogens



- Transmit the information to lymphocytes



Elie Mechnikov – discovered phagocytosis

LYMPHOCYTES

- B cells – produce antibodies to kill invaders. Each invader needs specific antibody. They use information gathered by phagocytes
- T-cells kill invaders

TYPES OF THE IMMUNE SYSTEM

- Innate (phagocytes)
- Adapted (lymphocytes)
- Passive