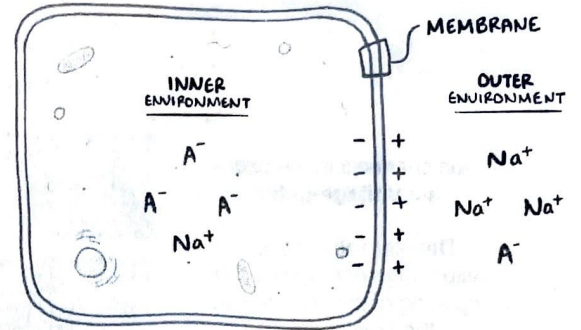


# Nervous System Part 2: Transmitting Nerve Impulses

## The Neuron Cell Membrane at Rest

- 1)
- 2)
- 3)



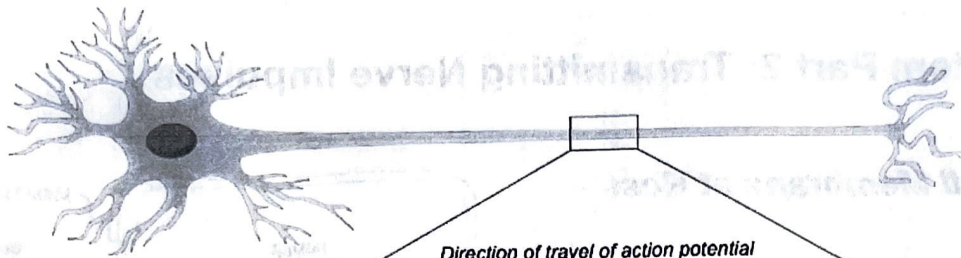
Sodium potassium pump:

## Neuron Cell Membrane During Action Potential (Impulse)

- 1)
- 2)

## Steps of Action Potential

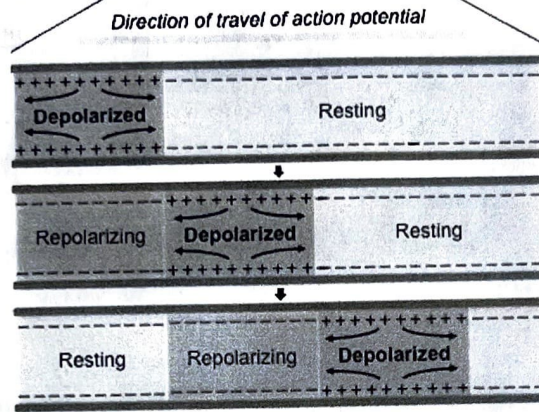
- 1)
- 2)
- 3)



Ion channels in the axon are **voltage-gated**

Depolarization at one axon segment triggers the opening of ion channels in the next segment

Consequently, the action potential spreads along the axon as a 'wave' of depolarization



### **Hyperpolarization**

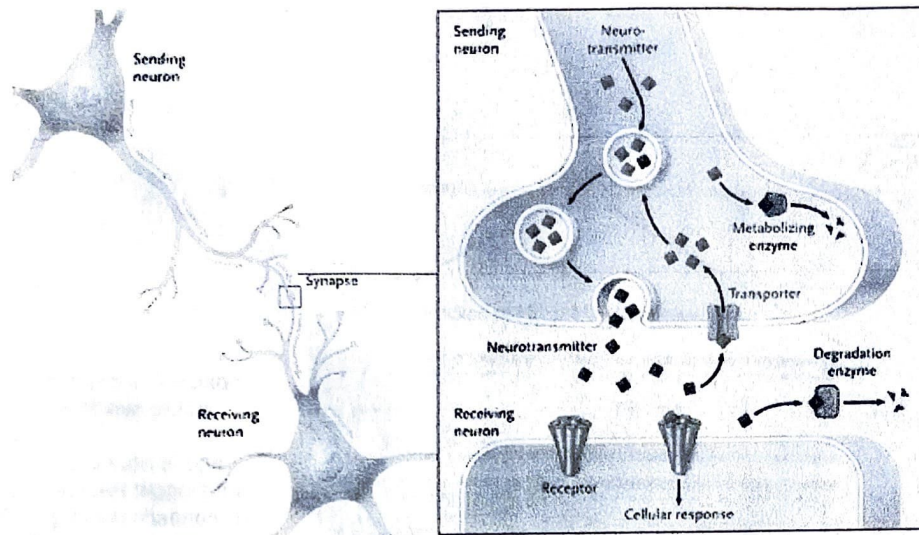
Explain why action potential only moves in one direction:

### **Nerve Impulse between Neurons**

1)

2)

3)



## **Main Types of Neurotransmitters**

- 1) Excitatory-
- 2) Inhibitory-

## **Neurotransmitters**

1. Adrenaline –
2. Norepinephrine-
3. Dopamine-
4. Serotonin-
5. Endorphins-
6. GABA-
7. Acetylcholine-