

# Neurons

Fundamental unit  
of the nervous system

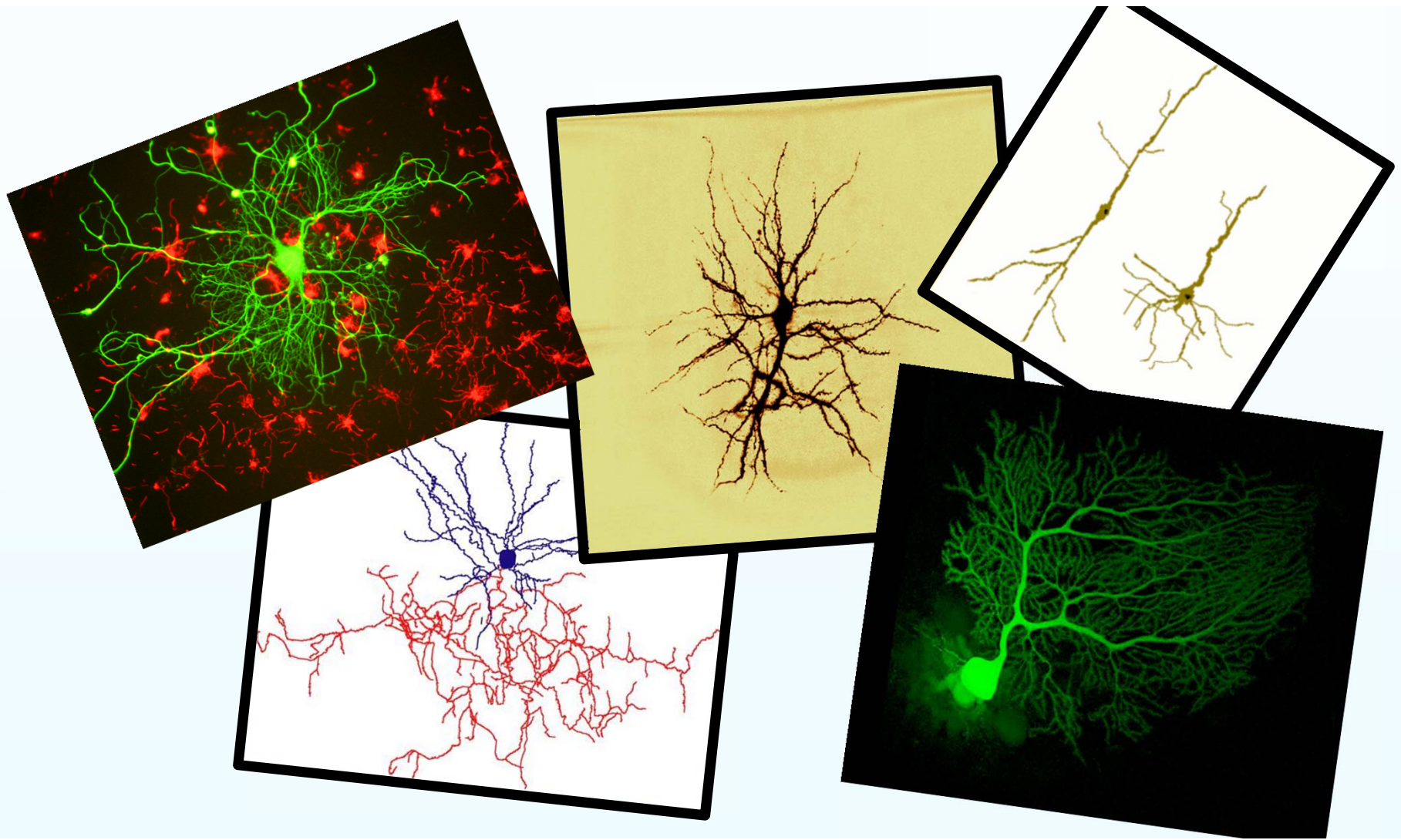


**Neurons have three roles:**

**1. Receive**

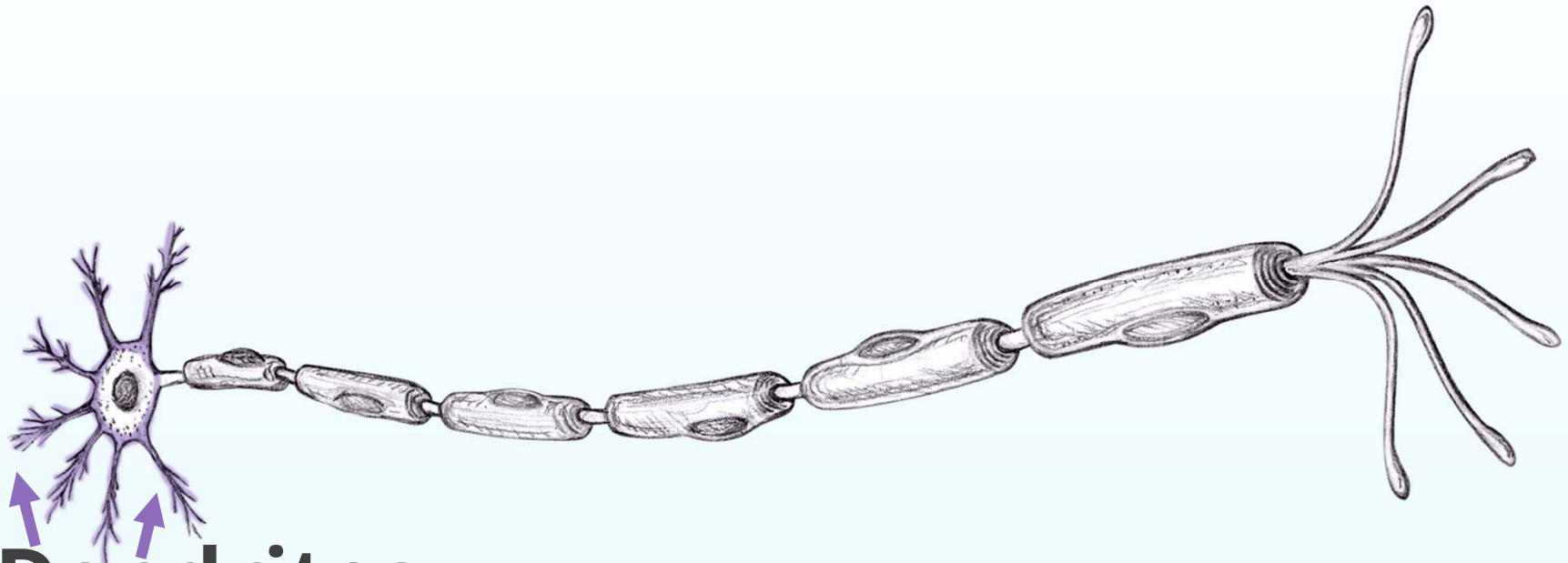
**2. Integrate**

**3. Transmit**



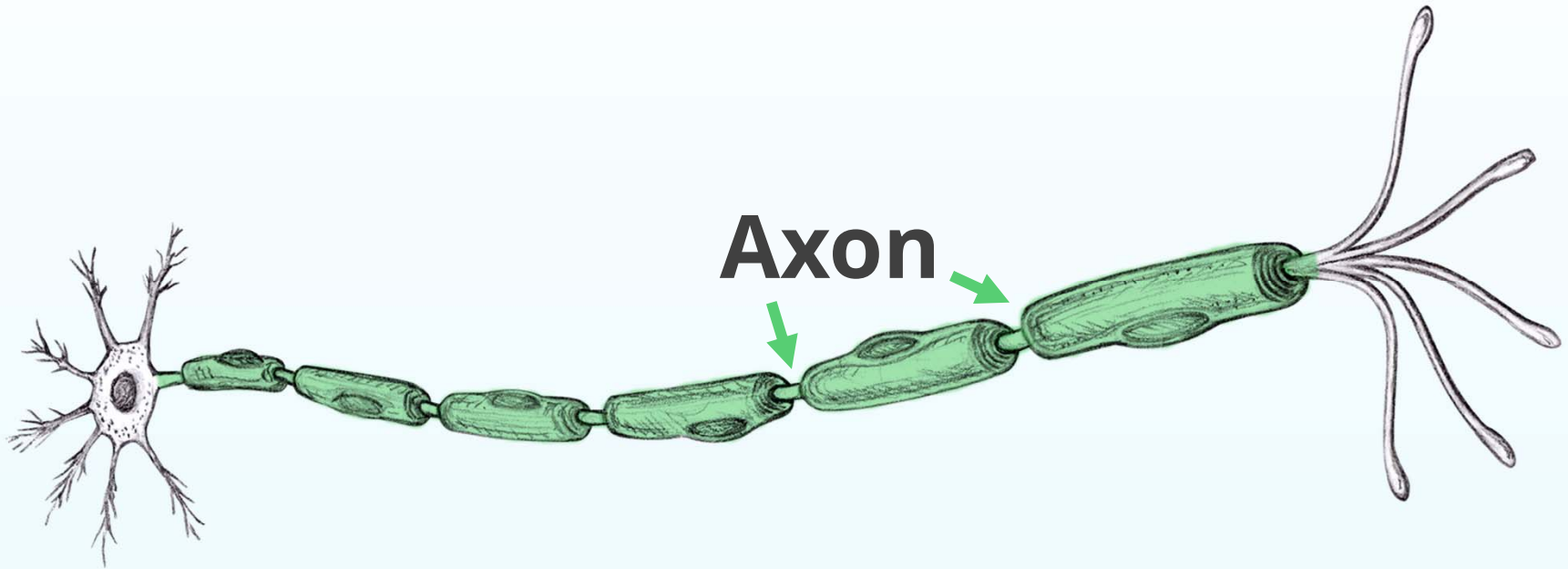
# Four structural regions that are important for communication





**Dendrites**



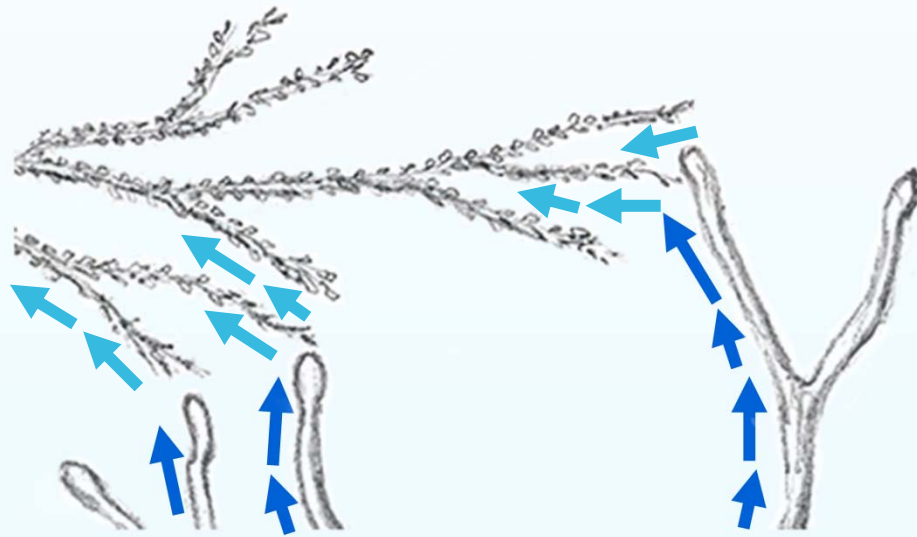


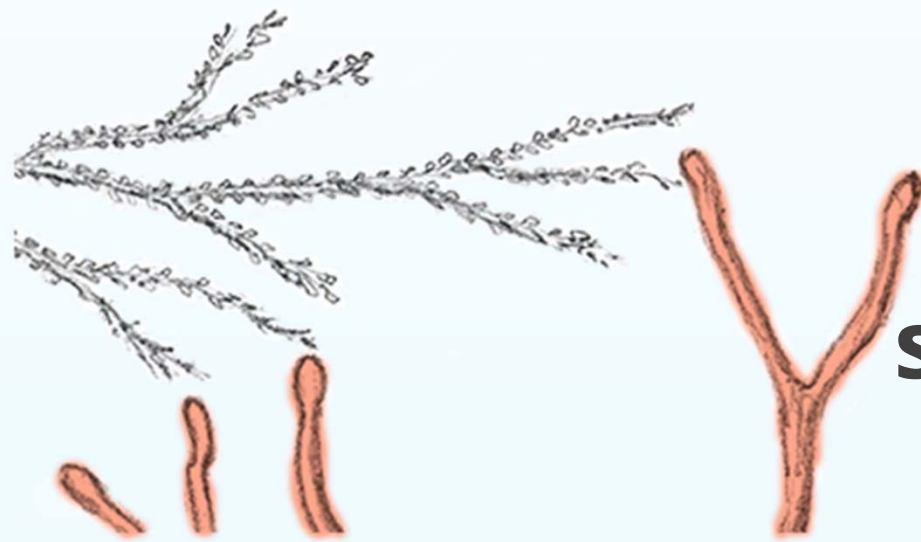


**Axon  
terminals**



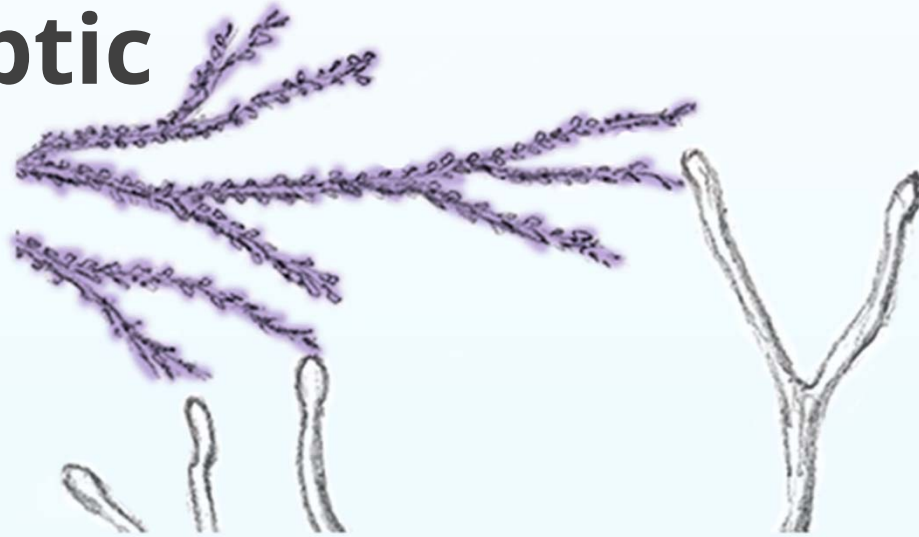
# Synapse





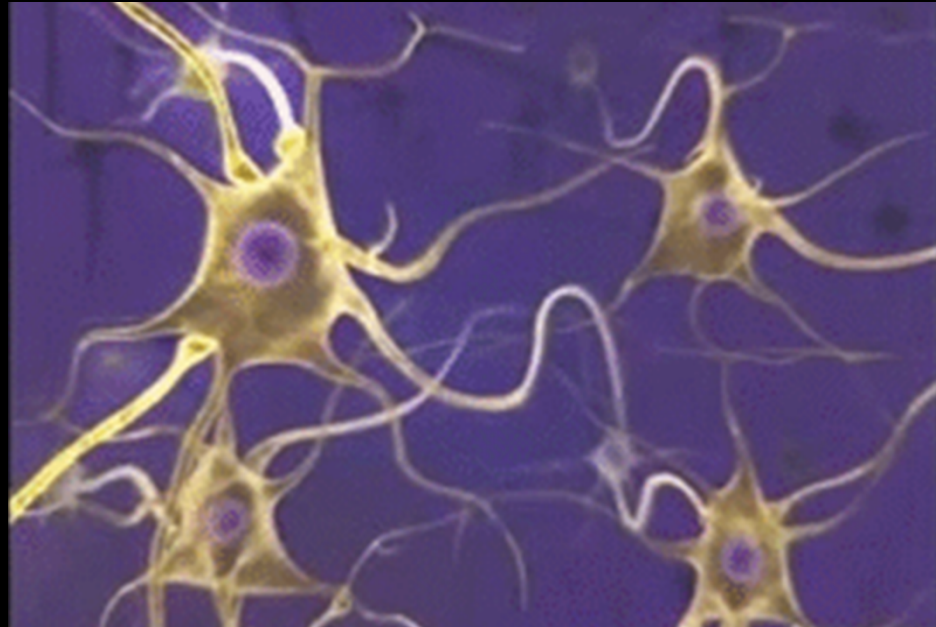
**Pre-  
synaptic**

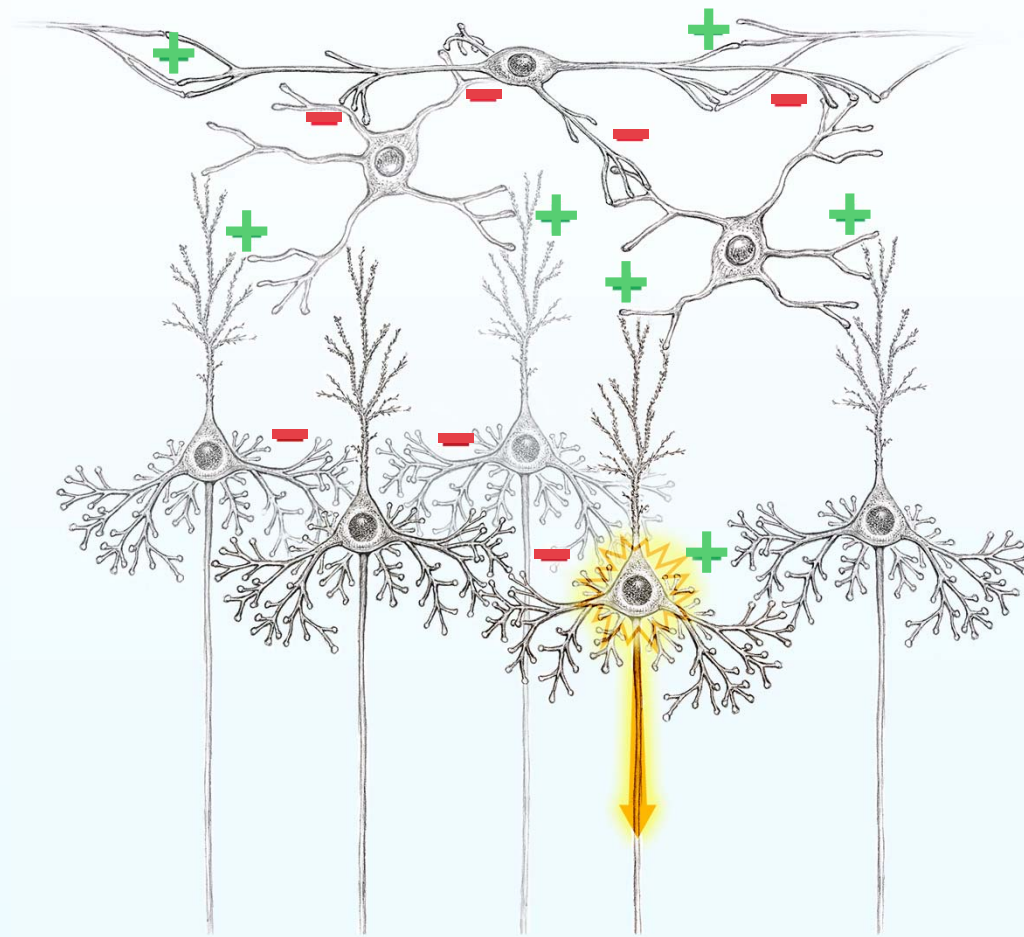
# Post-synaptic



# **Action potential (“firing”)**

**Electrical impulse that transmits signals to other neurons**

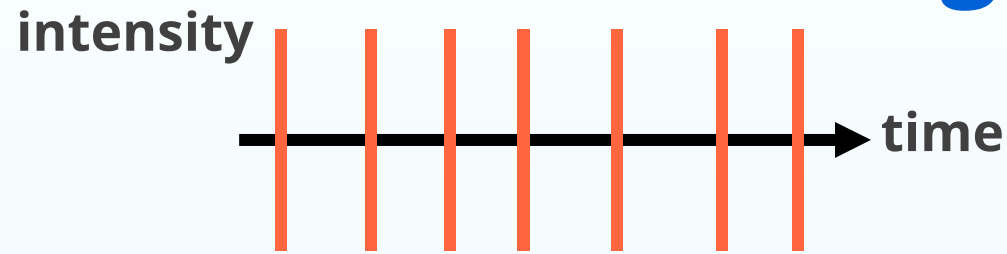




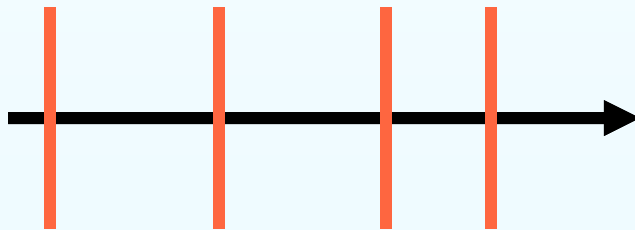
# **The action potential is all-or-none**

**A neuron always fires with  
the same intensity**

# Base rate of firing



**Slower frequency**



**Faster frequency**

