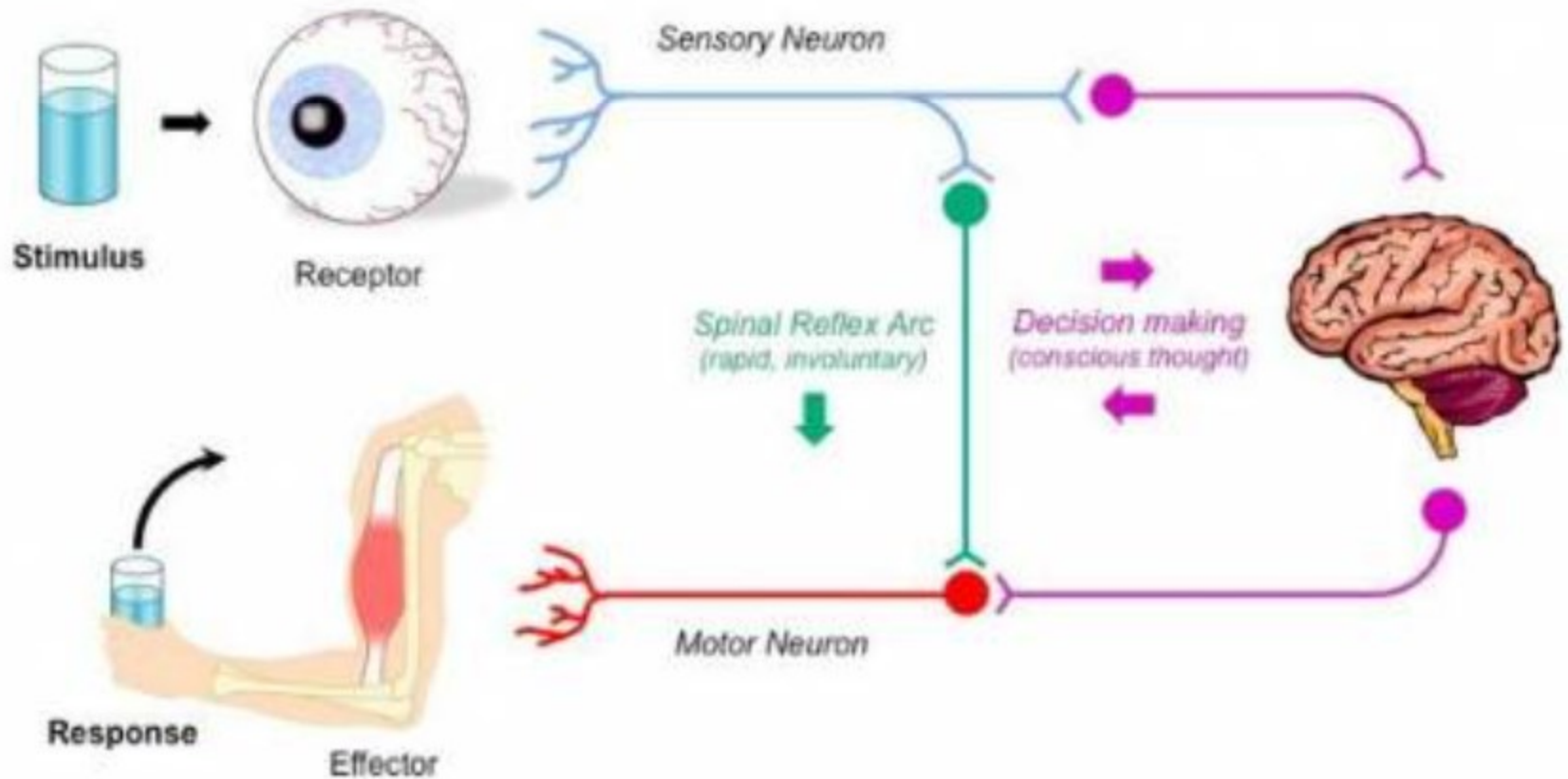


INTRODUCTION TO NEUROLOGY



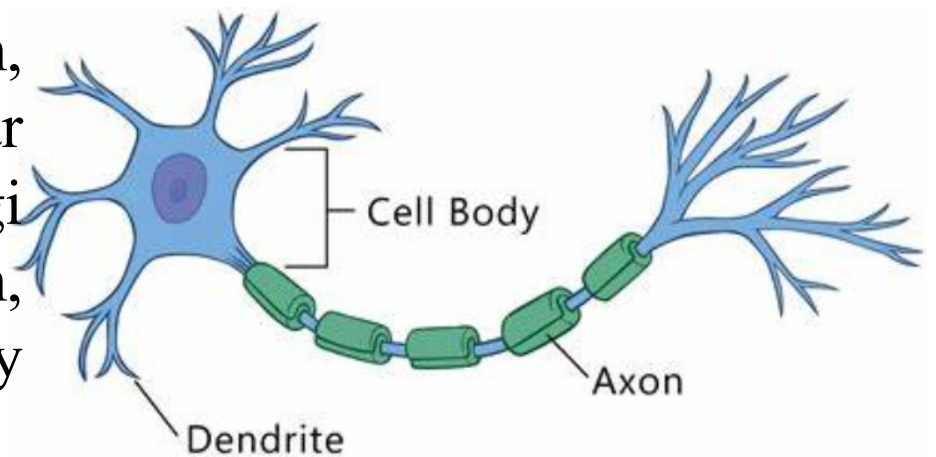
INTRODUCTION TO NEUROLOGY

- **Neurology** is the study of nervous system.
- **Nervous system** receives the information with regard to the changes in the environment (external and internal) of the body and in response regulates appropriate function.



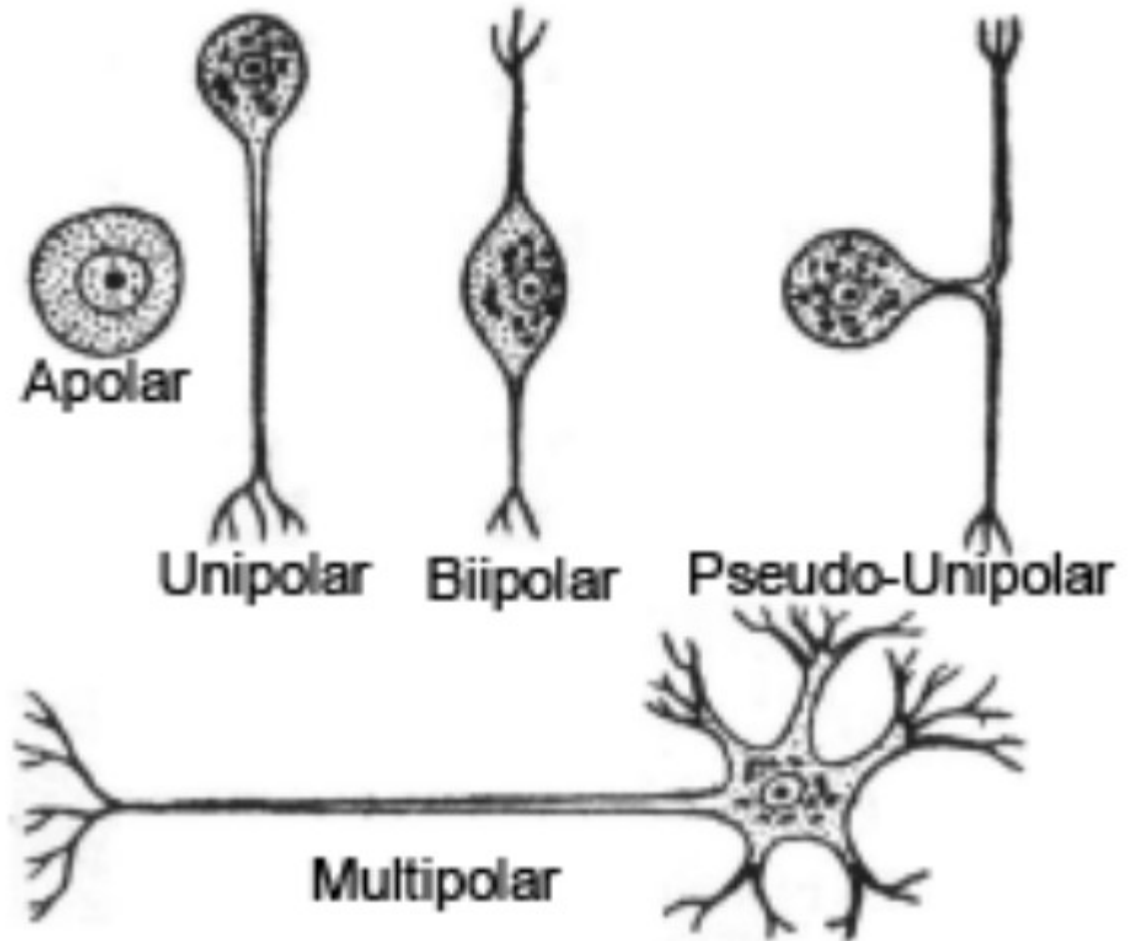
Nervous system

- The unit of the nervous system is the **neuron**.
- A **nerve cell** with all its processes or parts is called a neuron.
- The nerve cells have **two types of processes**.
- **Axon:** A long process which carries the impulse away from the cell body.
- **Dendrons/ Dendrites:** One or more short and branched processes which carry impulses towards the cell body.
- **Cell body:** Generally contains a large nucleus, neuroplasm, neurofibrils, Nissl bodies (angular granules), mitochondria, Golgi apparatus, endoplasmic reticulum, ribosomes, inclusions, neurosecretory materials and cell membrane.



Classification of Neuron

- The **Neurons** are classified according to their **number of processes**, such as
- Apolar,
- Unipolar,
- Bipolar,
- Pseudo-Unipolar
- Multipolar, etc.

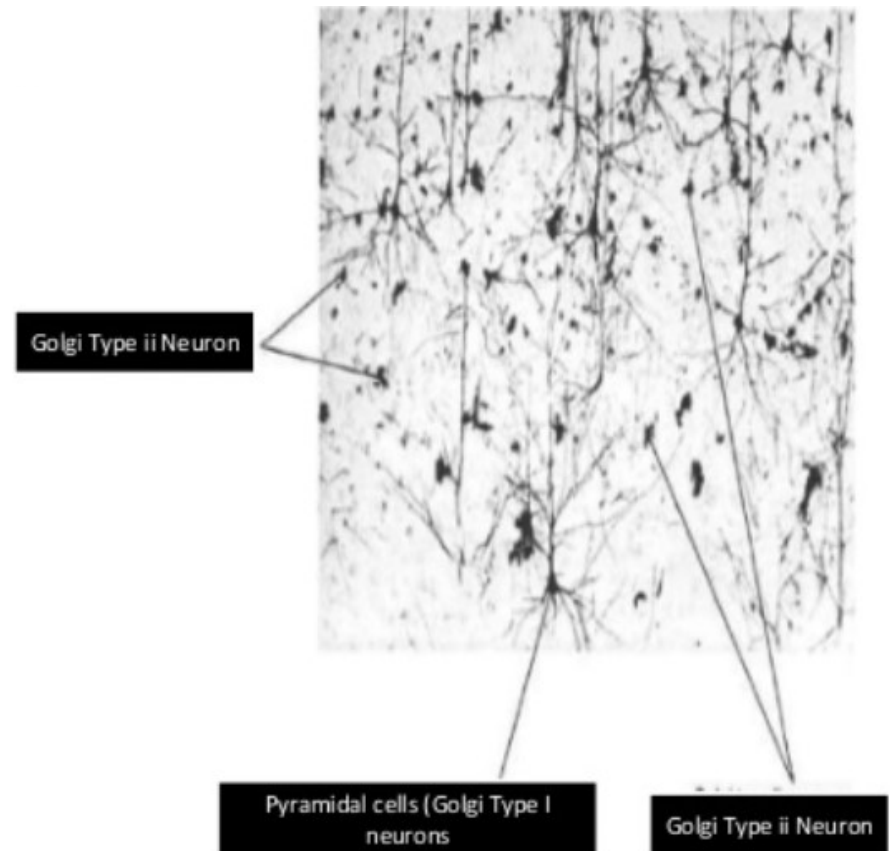


Classification of Neuron

Neurons can be classified **according to relative lengths** of axons and dendrons.

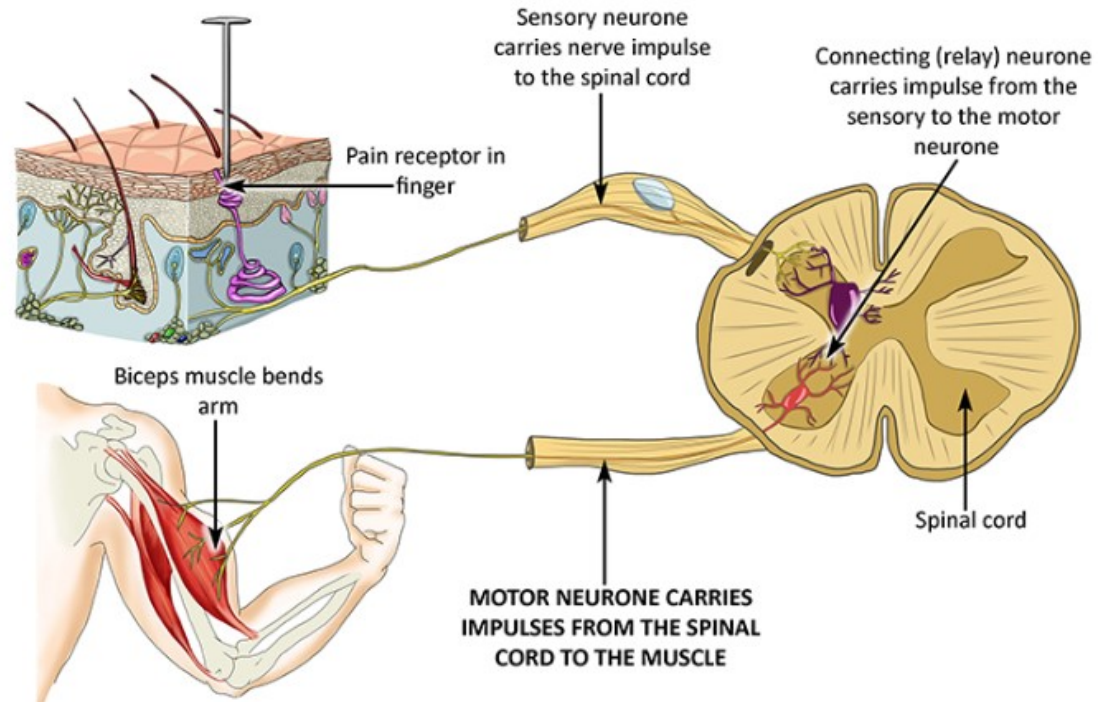
(a) Golgi type-I: The **dendrites are short** and numerous. The **axons are long**. Peripheral neurons and those forming tracts in CNS belong to this category.

(b) Golgi type-II: **Axons are short** and morphologically similar to those of dendrites. They are confined within grey matter and establish synaptic connections with other neurons.

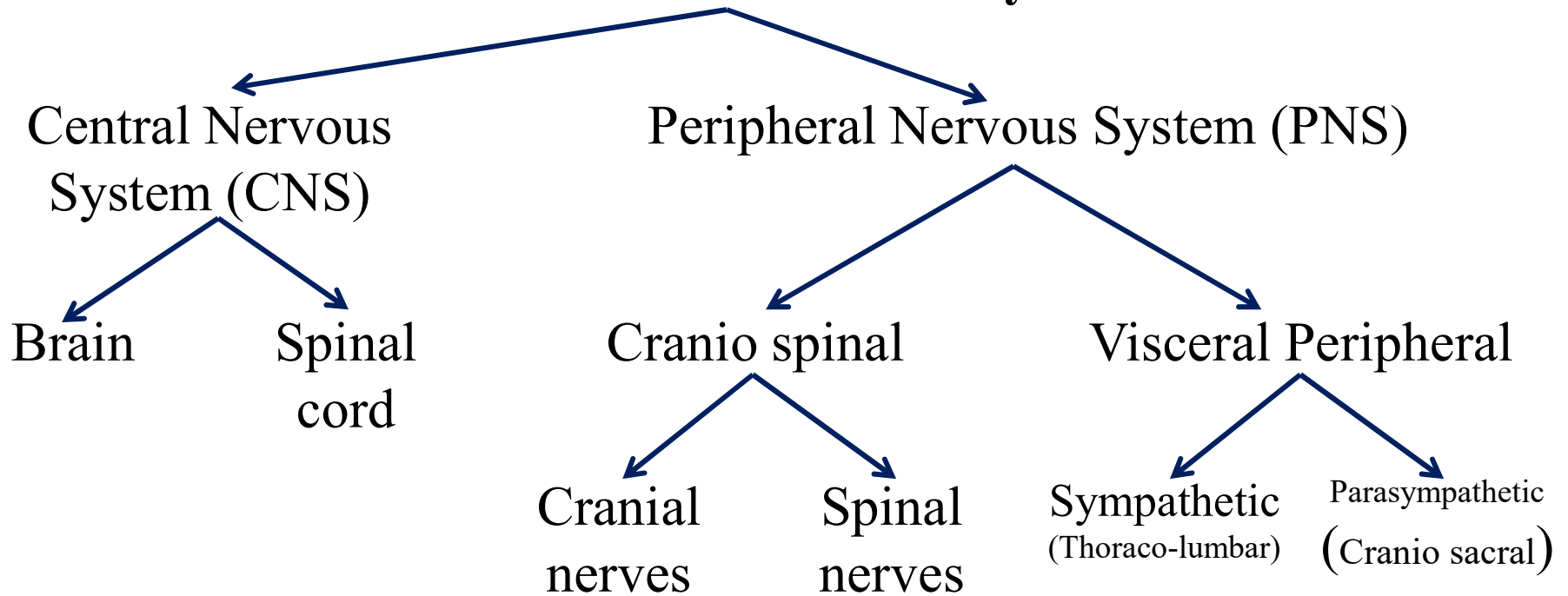


Classification of Neuron

- **Amacrine neurons:** These are unusual **neurons of retina** and **possess numerous neurites** (terminal fibers of axon and dendrons) **without axons.**
- **Efferent or motor fibers:** The Axons or nerve fibers which carry impulses from the central nervous system (CNS) to periphery.
- **Affarent or sensory fibers:** Those carry impulses to the CNS.
- The motor neurons are generally multipolar and the sensory neurons are bipolar or unipolar in nature.



Classification of Nervous System



Functionally the nervous system is divided into (a) **Somatic nervous system** and (b) **Autonomic nervous system**.

THANK YOU