

CENTRAL NERVOUS
SYSTEM

PERIPHERAL NERVOUS
SYSTEM

BRAIN

CRANIAL NERVES

SPINAL CORD

SPINAL NERVES

SENSORY ORGANS
(eyes, nose,
tongue, ears,
and skin)

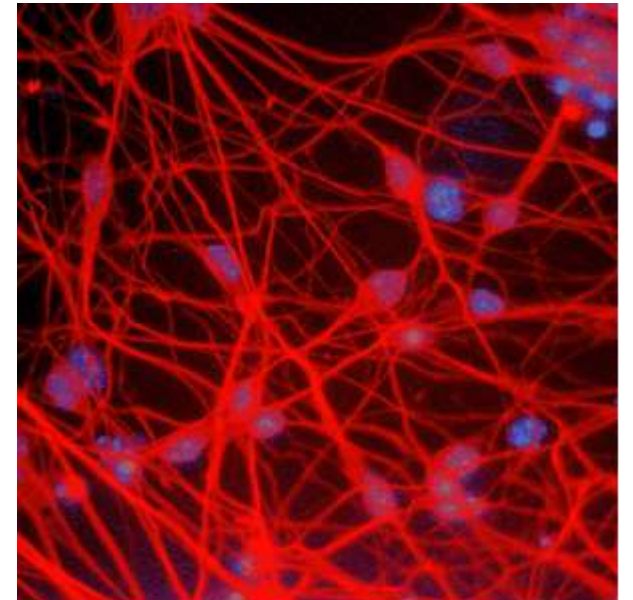
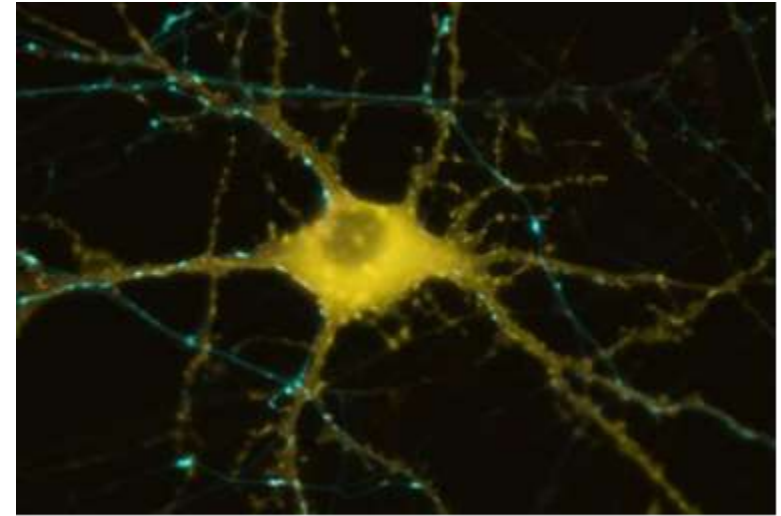


CNS and PNS

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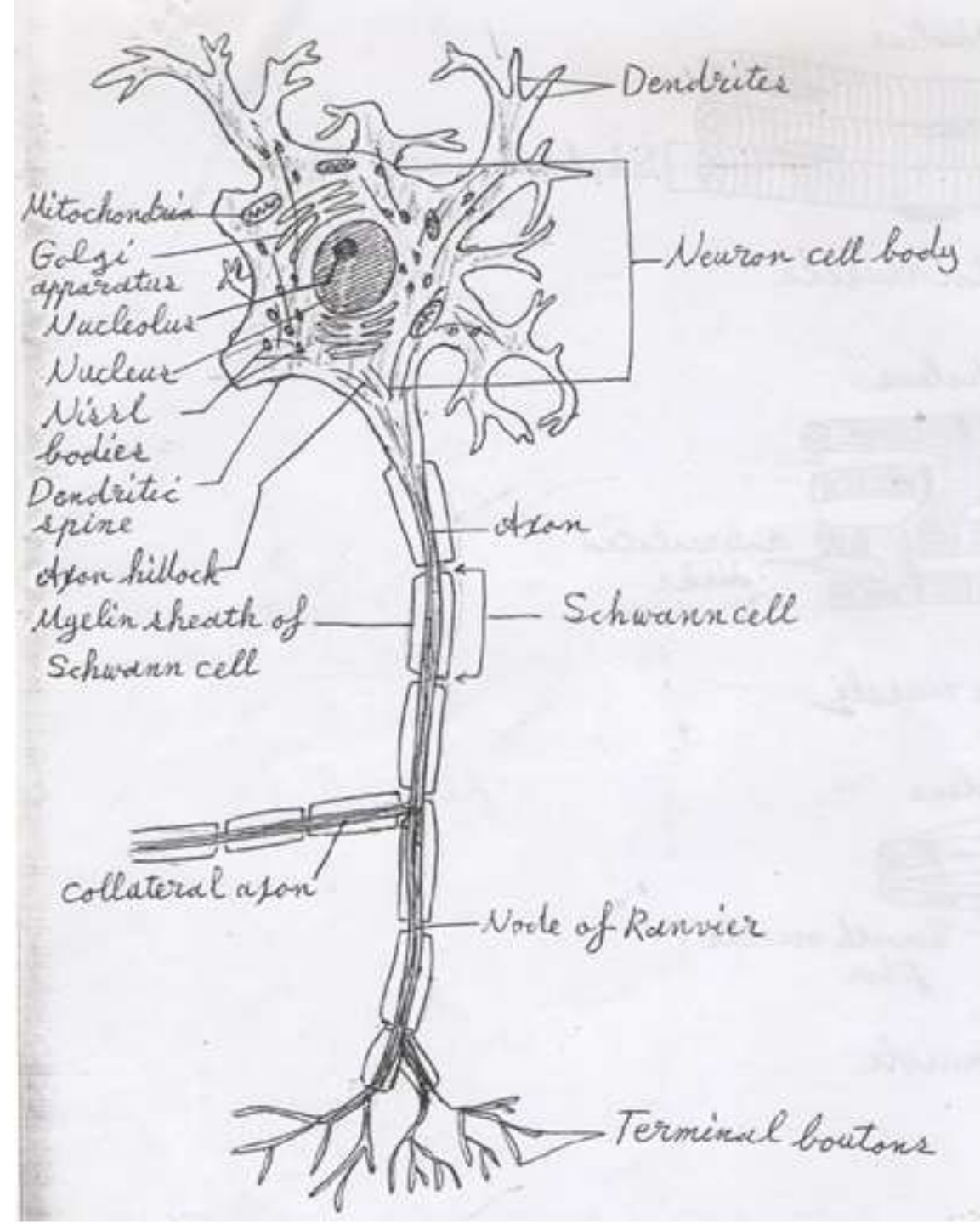
Nervous tissue :-

- Nervous tissue, which contains nerve cells called neurons, is present in the brain and spinal cord.
- Nerve cells, or neurons are responsible for the reception, transmission and processing of stimuli; the triggering of certain cell activities and the release of neurotransmitters and other informational molecules.

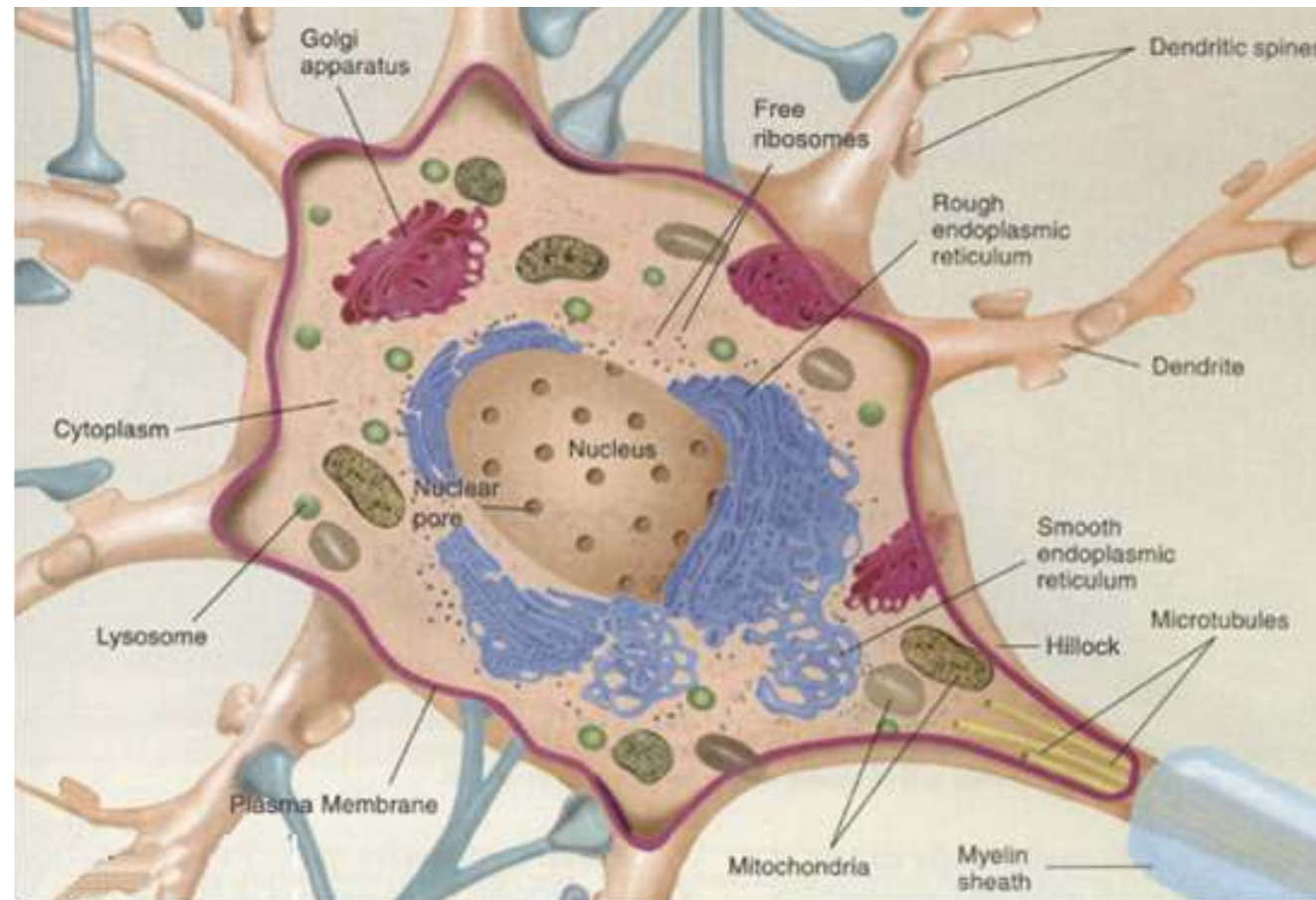


Motor neurons consist of 3 parts:-

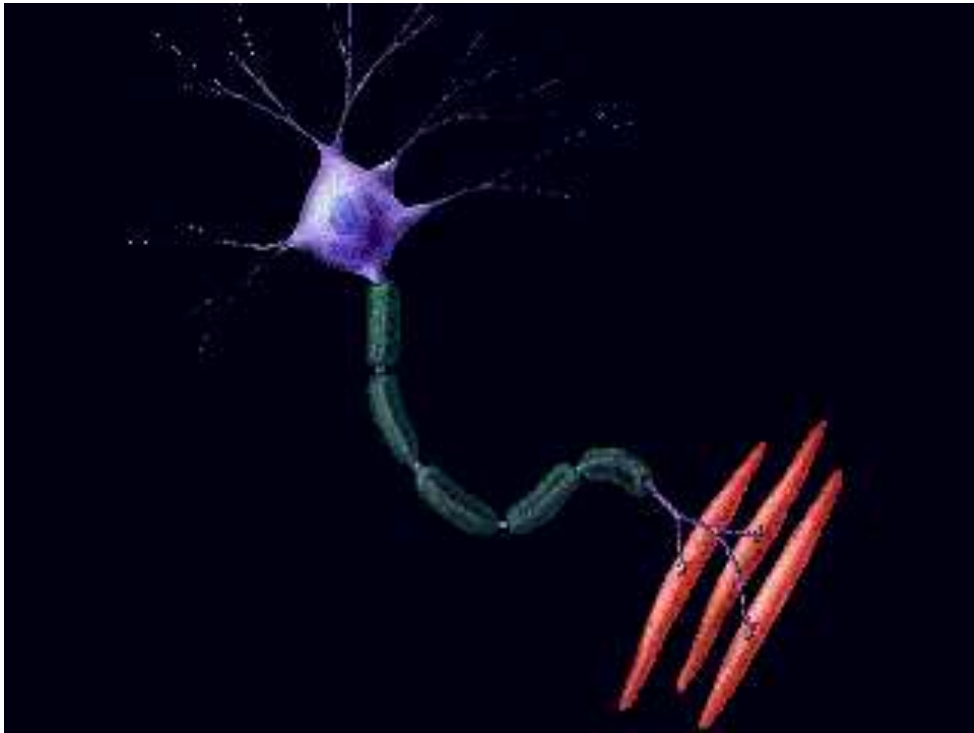
1. The dendrites:- Which are multiple elongated processes specialized in receiving stimuli from the environment, sensory epithelial cells, or other neurons.



2. the cell body or perikaryon:-Which is the trophic center for the Whole nerve cell and is also receptive to stimuli.



3. The axon:-Which is a single process specialized in generating or conducting nerve impulses to other cells (nerve, muscle, and gland cells). Axon may also receive information from other neurons; this information mainly modified transmission of action potential to other neurons.



According to the size and shape of their processes, most neurons can be placed in one of the following categories :-

- **1-Multipolar neurons:** Which have more than two cell processes, one process being axon and the others dendrites.
- **2-Bipolar neurons:** Which have one dendrite and one axon.
- **3-Pseudounipolar neurons:** Which have a single process that is close to the perikaryon and divides into two branches. The process then forms a T shape with one branch extending to a peripheral ending and other toward the central nervous system (CNS).

