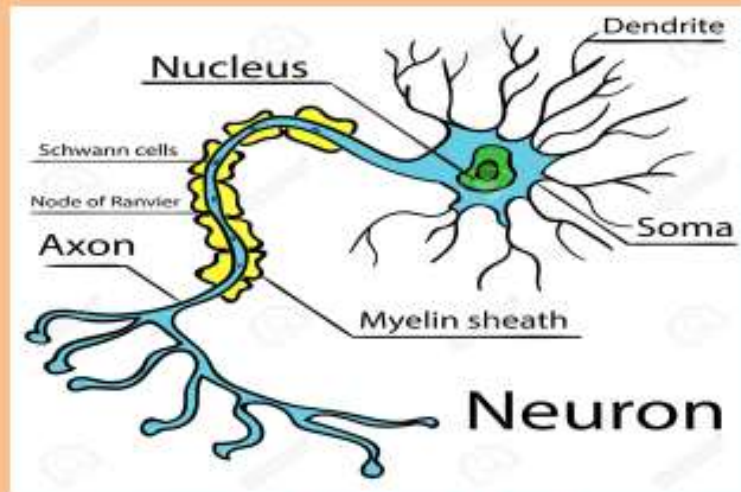


Power point Example

NEUROHEADWAY

Neuroscience Into Education

CELL NEUROSCIENCES



Cellular neuroscience is the study of neurons at the cellular level.

This includes **the morphology and physiological properties of individual neurons.**

LEVELS OF ORGANIZATION OF THE NERVOUS SYSTEM

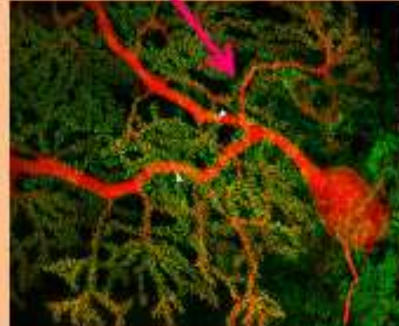
"The study of the nervous system is one of the sciences that is advancing more in recent years.

-It is important to understand the level of analysis being investigated.

-For this, up to five different groups have been described depending on their level of complexity:

MOLECULAR, CELLULAR, CONDUCTUAL AND COGNITIVE SYSTEMS.

Different techniques have been used to study activity at the cellular level.
For example: the **intracellular recording**, the **patch-clamp** and the Voltage fixation technique, pharmacology, confocal imaging, Molecular biology, among others.



Cellular Neuroscience has allowed us to study the different types of neurons, the functions of different neurons and their influence with other neurons, etc. In short, we understand how neurons work together.

PHYSIOLOGICAL AND NEUROCHEMICAL PROCESSES BETWEEN THE NEURONS

These processes explain how it works and how
Establish contacts between neurons (NEURO) and substances
Which allow them to connect to each other (CHEMICALS).

CELL NEUROSCIENCE

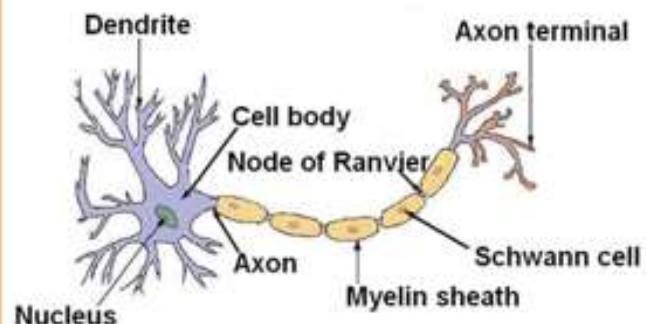
The parts of the neuron are:

Dendrites

Axon

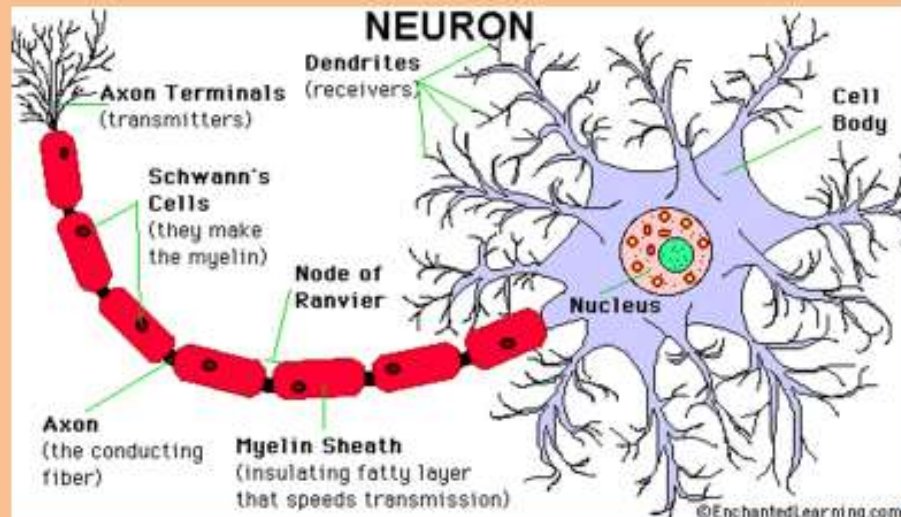
Cell body

Structure of a Typical Neuron



NEURONS

They receive information and lead it to the whole body.



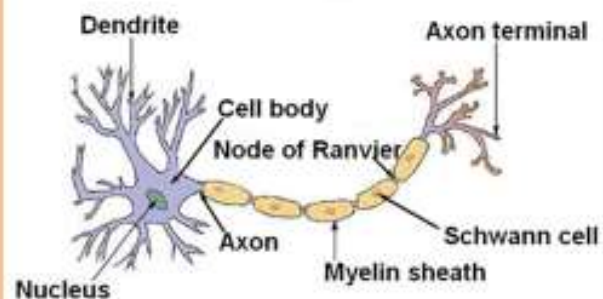
NEURON STRUCTURES

Dendrite: Receives information from environmental stimuli or from another cell.

Axons: Conduct the nerve impulses from the Soma or another cell.

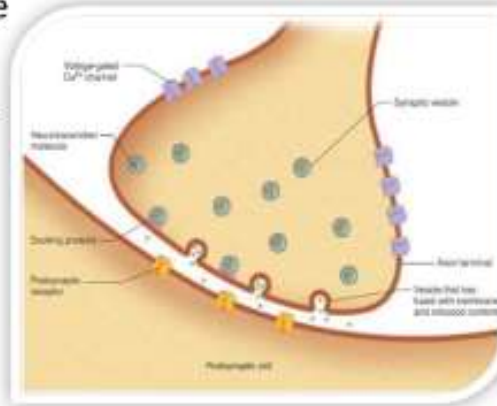
Cuerpos celulares (SOMA): Mantienen la integridad anatómica y funcional de la neurona. Producen las sustancias químicas mensajeras. En el soma nacen las dendritas y los axones.

Structure of a Typical Neuron

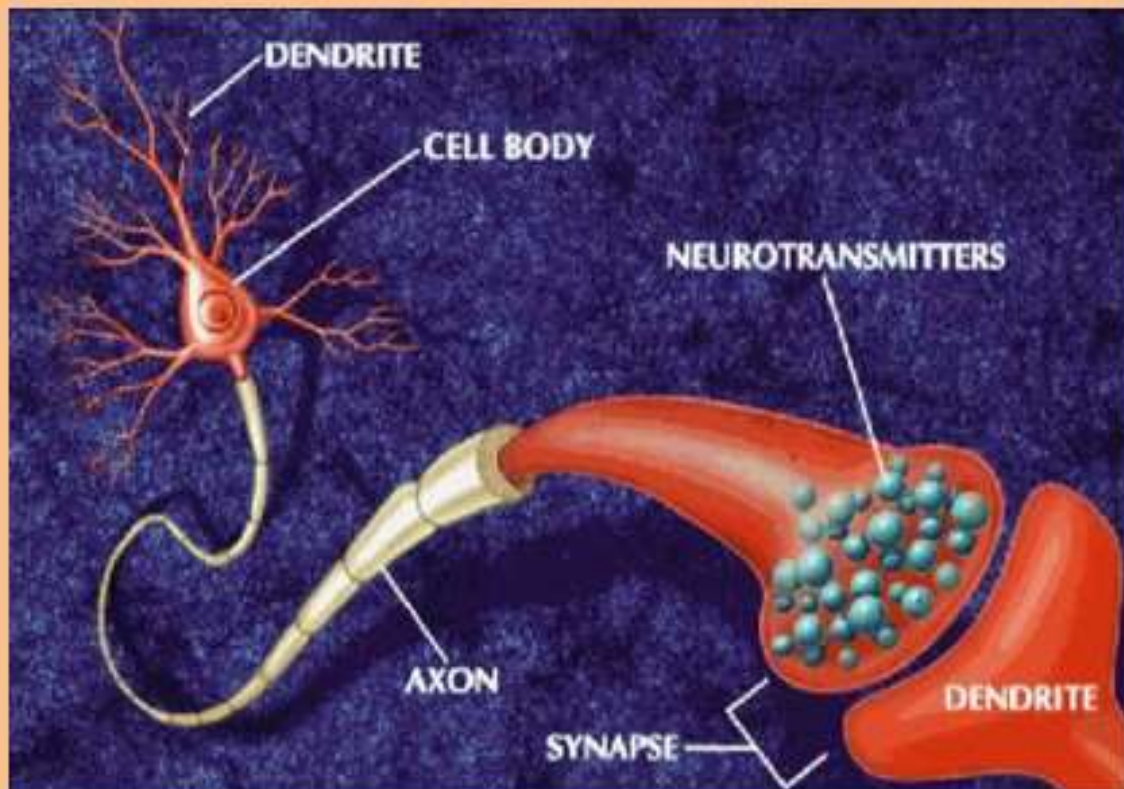


DEFINITION:

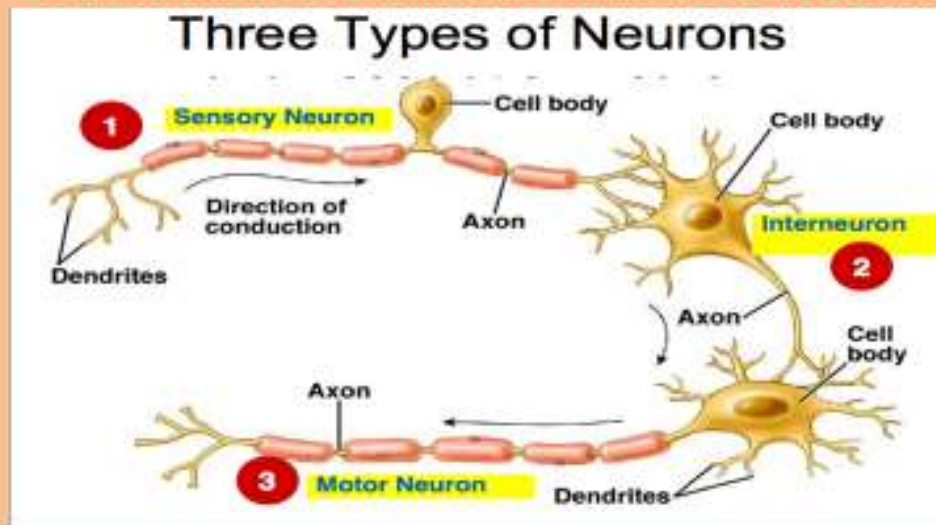
Neurotransmitters are the chemical substances which are responsible for transmission of an impulse through a synapse.



Schematic diagram of synapse



CLASSIFICATION OF NEURONES ACCORDING TO THEIR FUNCTION



1-SENSITIVE NEURONS (AFERENTS): receive sensory stimulation (pain, pressure, temperature, etc.) at the level of their dendritic terminations and drive impulses towards the S.N.C for processing.

2-MOTOR NEURONS (EFERENTES): are located in S.N.C. And its axon leaves the S.N.C driving the impulses towards the effector organs (that produce a response): muscles, glands, other neurons, etc.

3- INTERNEURONAS: are neurons that interconnect sensory neurons with motor, are also located among other interneurons forming neural circuits.