

Ask Weber

Nervous System 2 (Topic 11)

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Central Nervous System 2



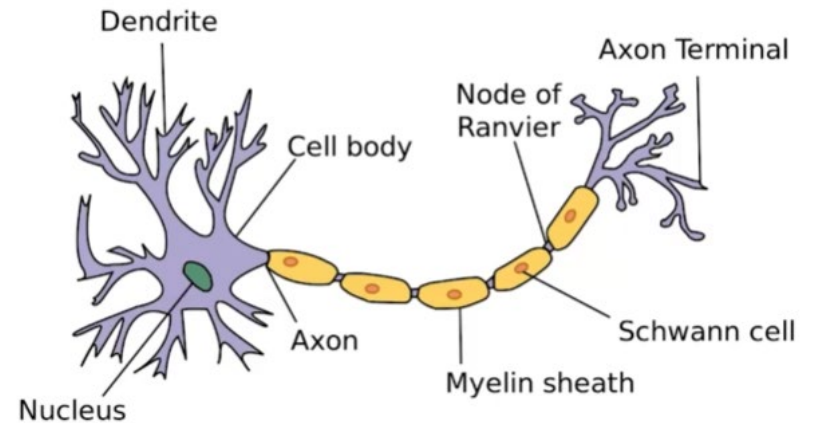
THE UNIVERSITY OF
SYDNEY

The neurone

Draw a neuron and label its components

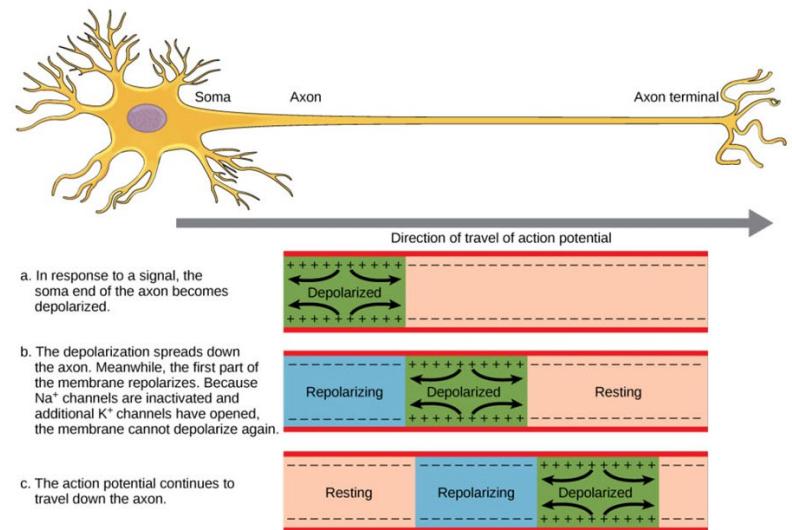
What component of the neuron:

- Accepts information?
- Integrates information?
- Transmits information?



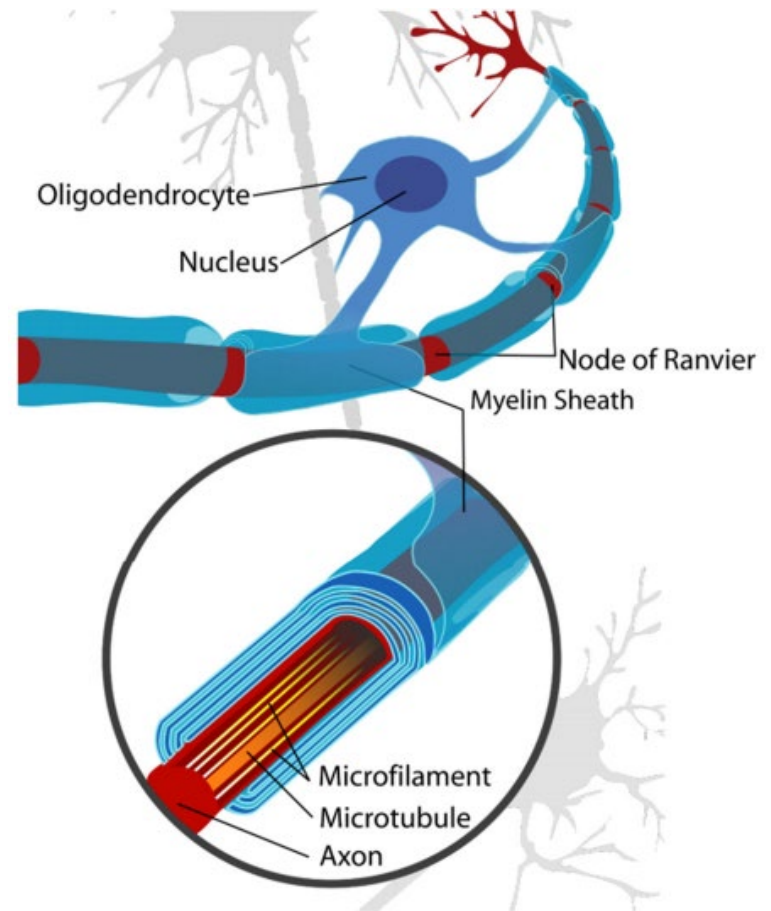
Action potentials

Describe the process in which an action potential travels down a neuron



Describe the function of the oligodendrocyte / Schwann cell in nerve conduction

- Forms the myelin sheath around neurons, insulates axons and results in nodes of ranviers which allows jumping of action potentials



Synaptic transmission

What final electrolyte/ion is responsible for the release of neurotransmitters into the synaptic cleft?

- Ca^{2+}

Neostigmine is a drug which inhibits the acetylcholinesterase (the enzyme which remove acetylcholine from the synaptic cleft). If ACh is responsible for activation of a muscle, what would the addition of neostigmine likely do?

- Likely increase free ACh in the neuromuscular junction, resulting in muscle hyperactivity; clinically used in anaesthesia to reverse an NMJ blocking agent (rocuronium)

Nerve stimulation

Describe the concept of an EPSP/IPSP in the context of neuronal action potentials

