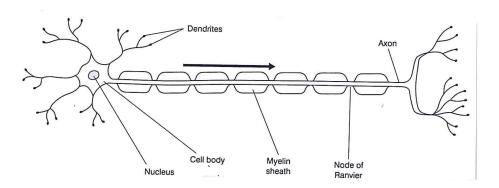
Structure of a motor neuron

- Cell body contains a nucleus and large amounts of R.E.R. grouped to form Nissl's granules (associated with the production of proteins and neurotransmitters).
- **Dendrites** small extensions of the cell body that carry nerve impulses towards the cell body.
- Axon a single long fibre that carries nerve impulses away from the cell body.
- Many axons are myelinated due to being surrounded by Schwann cells which protect and provide insulation:
 - The Schwann cells wrap themselves around the axon many times, building up layers of their membranes around the axon; the membranes contain a lot of **myelin** (a lipid) and form the insulating **myelin sheath** around the axon.
 - O The space between adjacent Schwann cells lacks myelin, forming gaps every 2-3 μm long, called **nodes of Ranvier** which occur every 1-3 mm in humans.



Direction of impulse (from dendrites to axon)