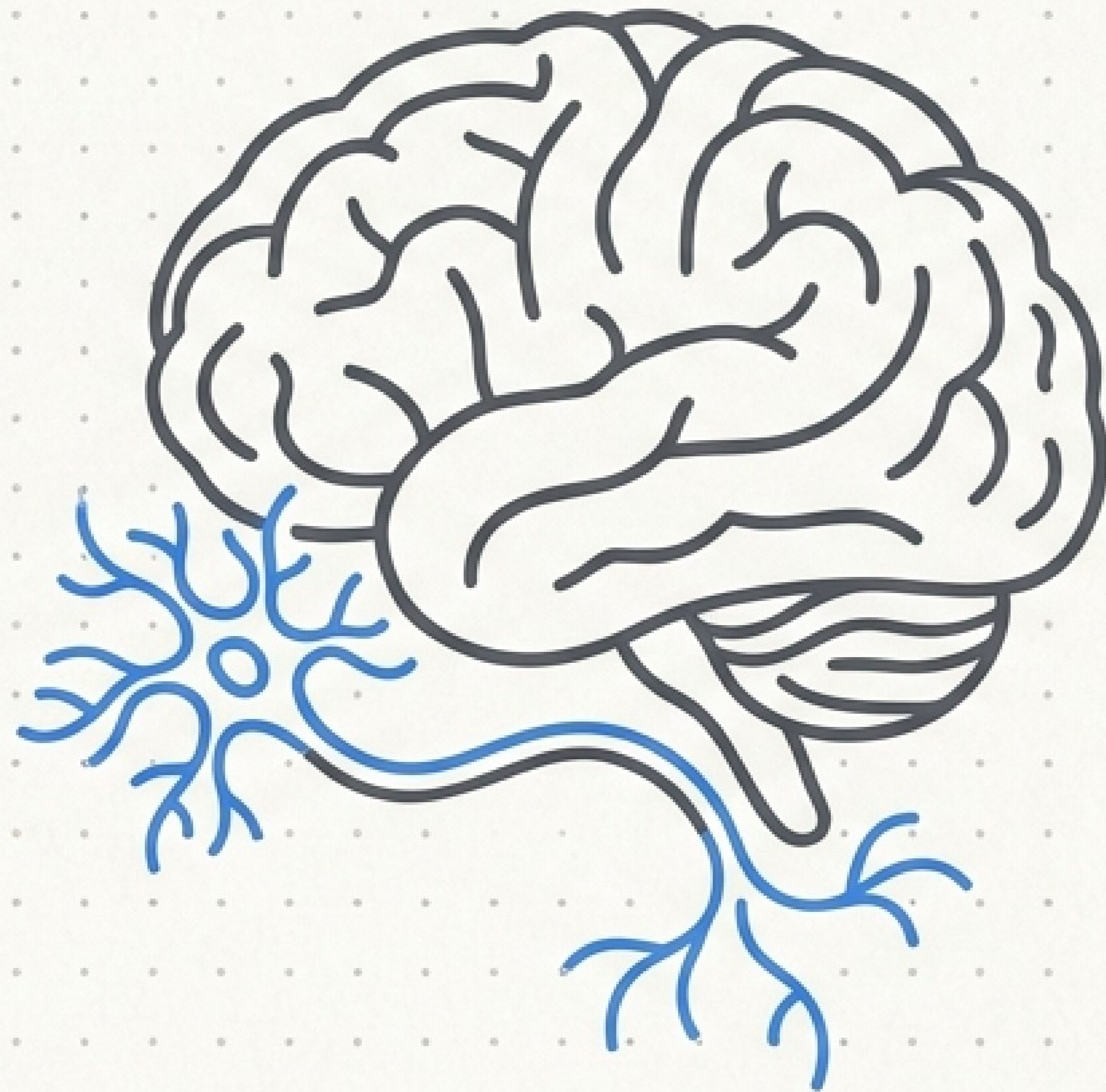
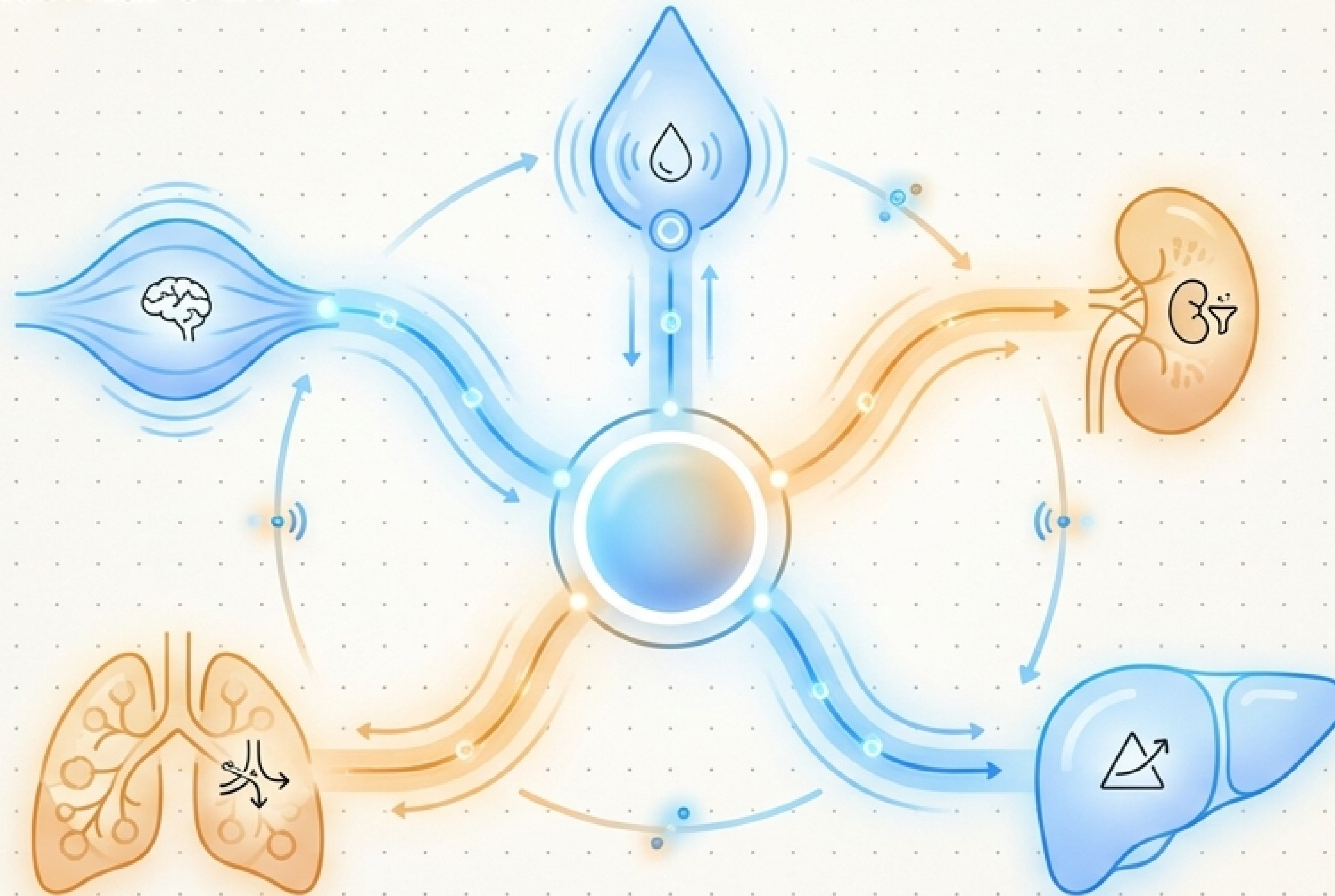


Master Study Notes on Control and Coordination

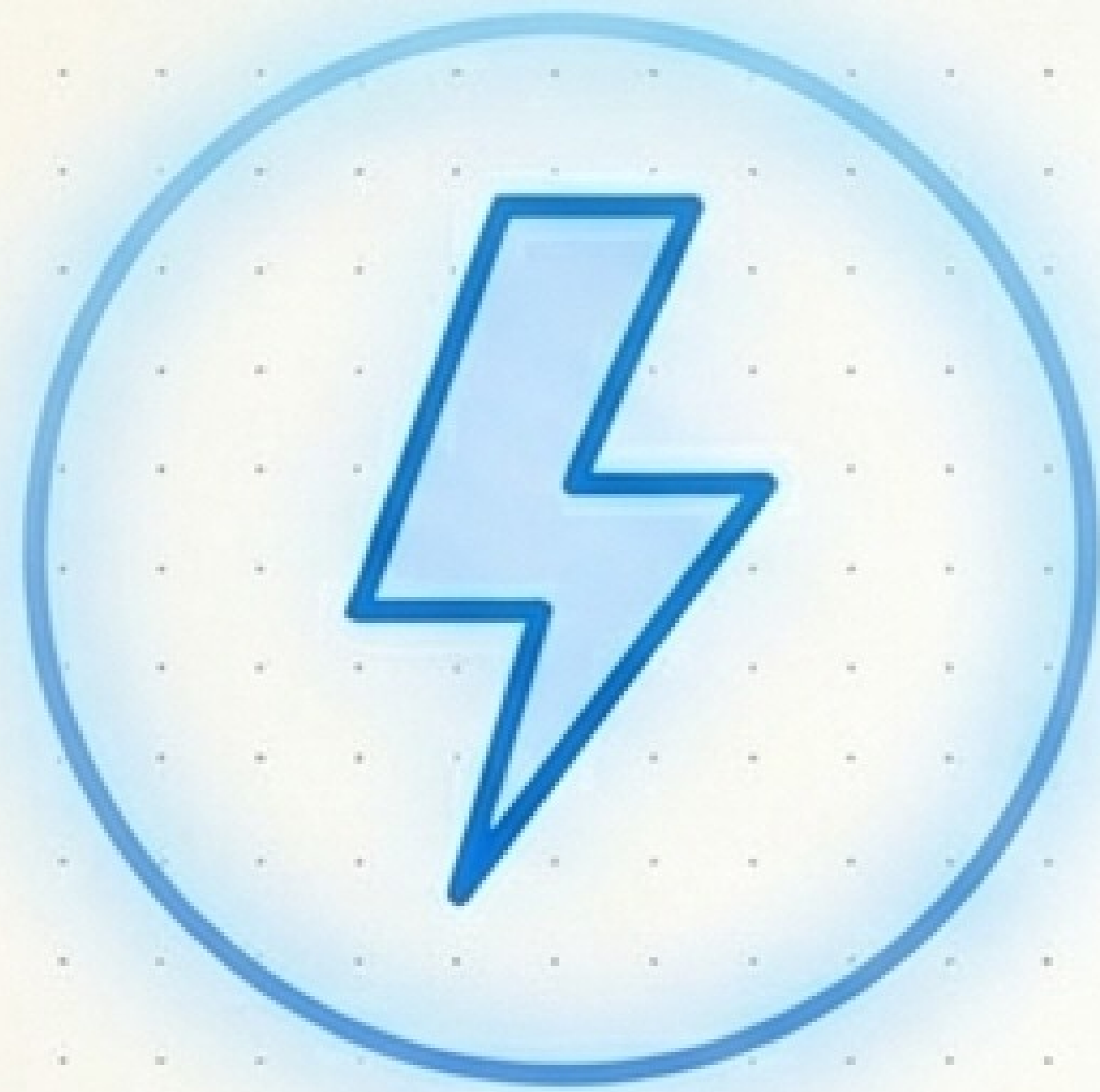


Harmonising the body's response to stimuli

Control and coordination allow body organs to work together and respond to internal and external stimuli.



Two distinct systems govern the body



Nervous System

controls quick responses
using nerve impulses.

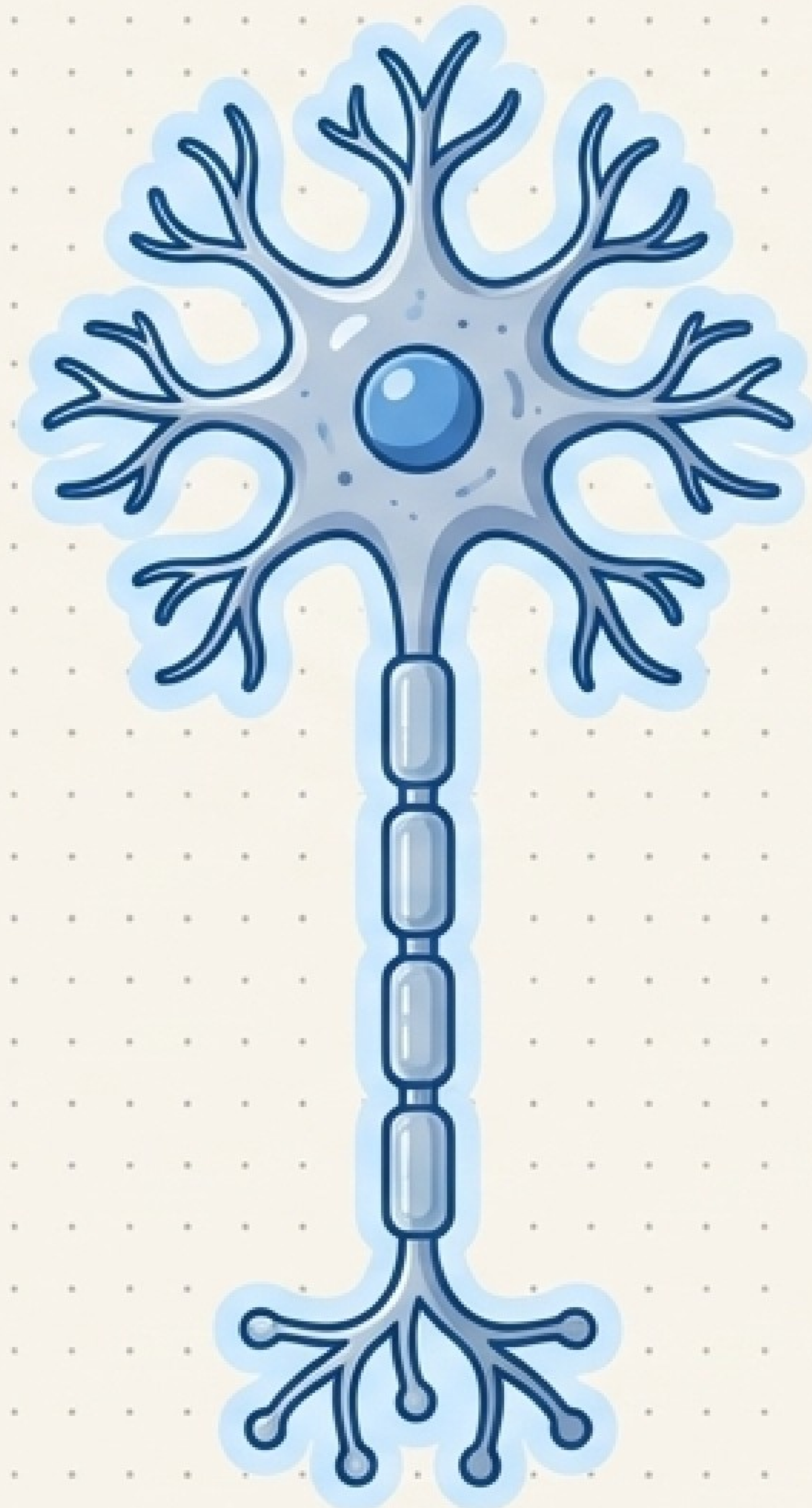


Endocrine System

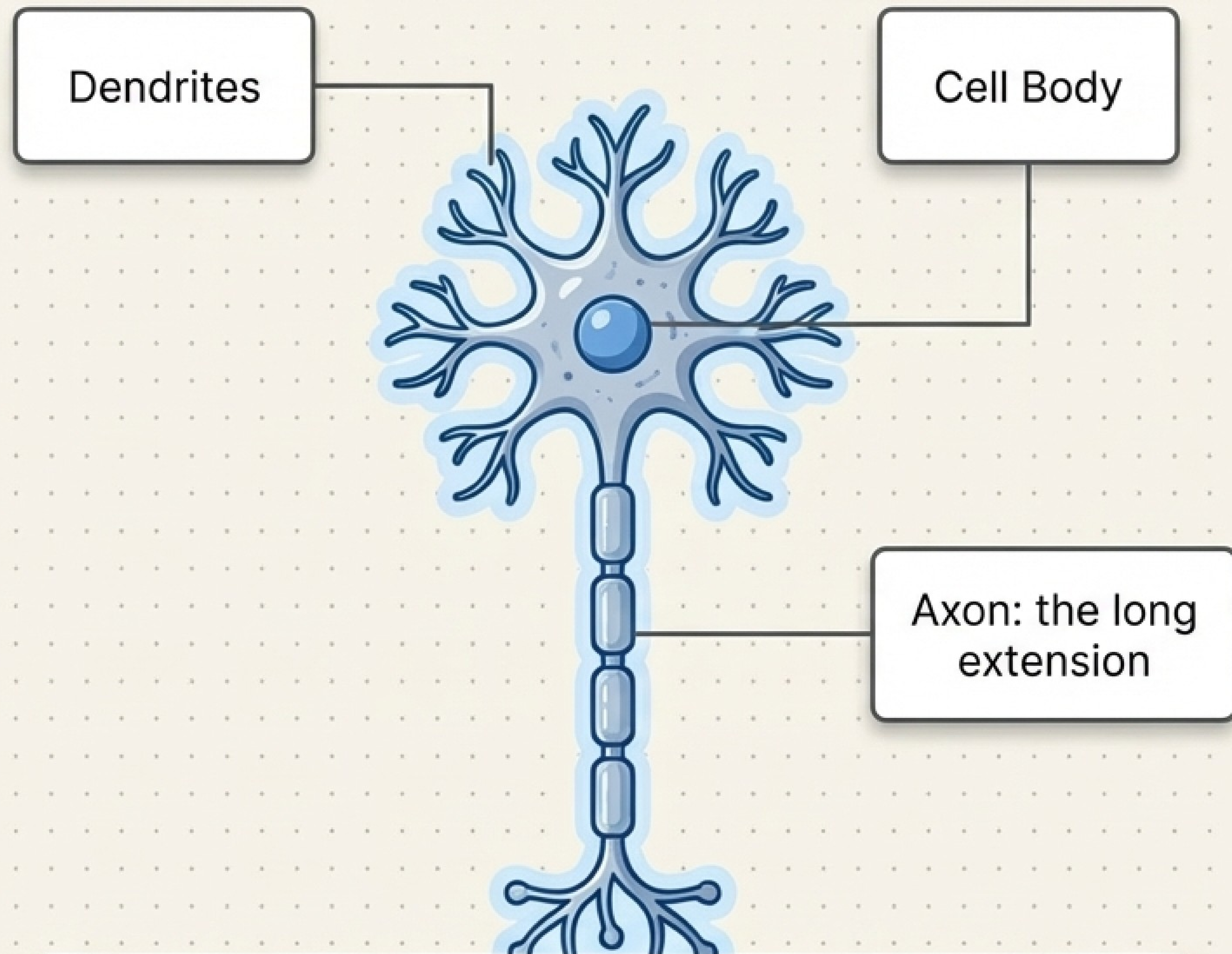
controls slow responses
using hormones.

The basic unit of the nervous system

The Neuron



Anatomy of a single neuron



Together, these components transmit nerve impulses.

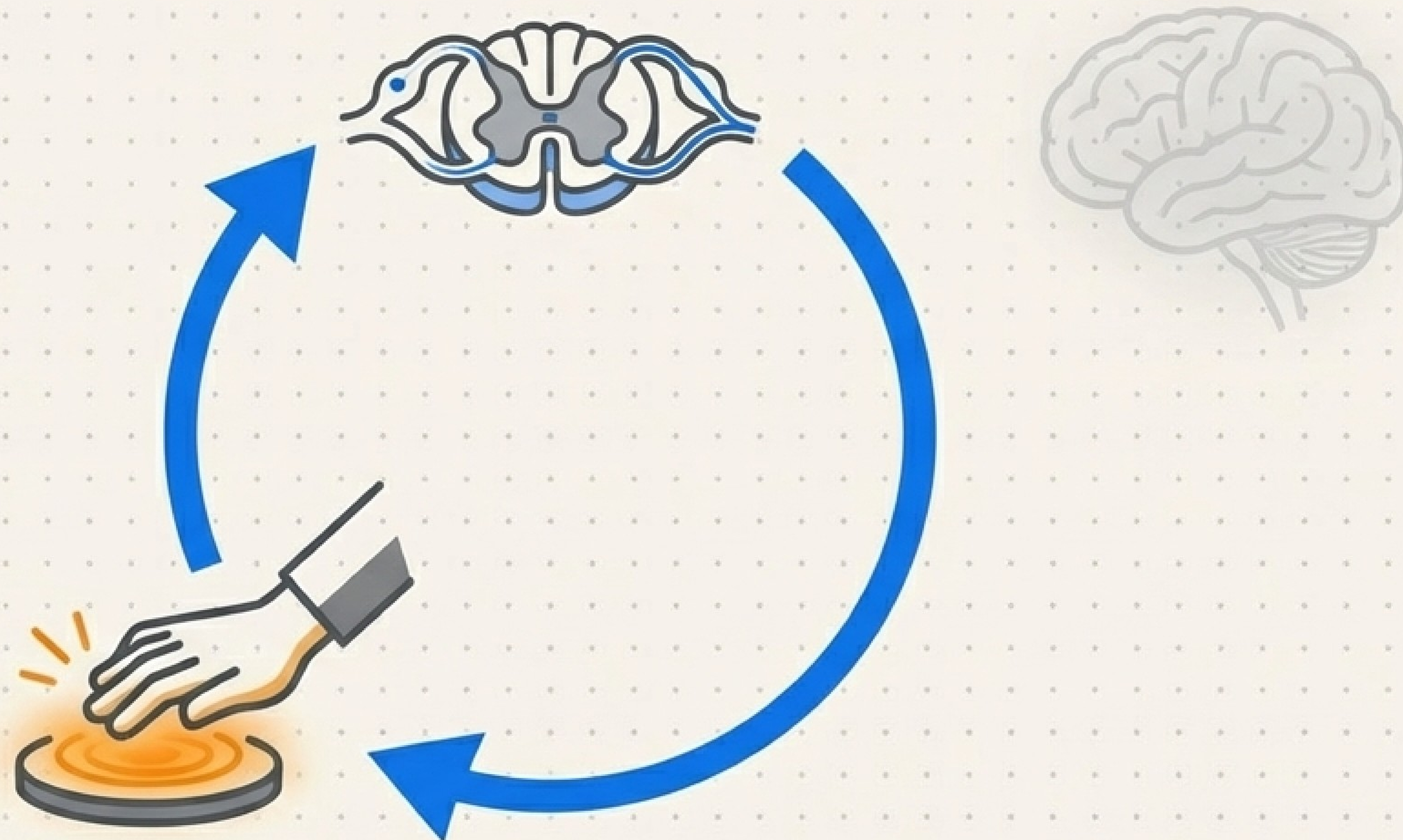
Rapid and automatic responses

A reflex action is a rapid automatic response to a stimulus.



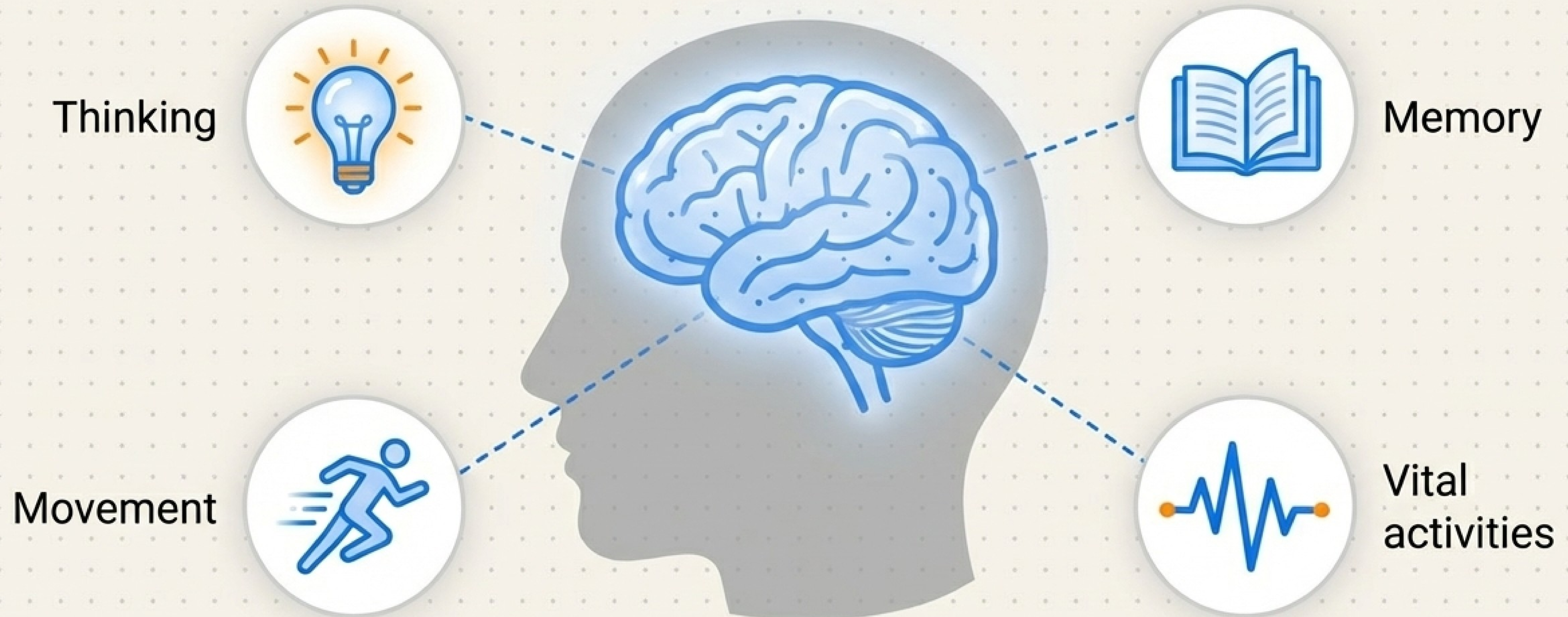
Tracing the reflex arc

The pathway followed by this rapid response is called a reflex arc.
Reflex actions are controlled directly by the Spinal cord.

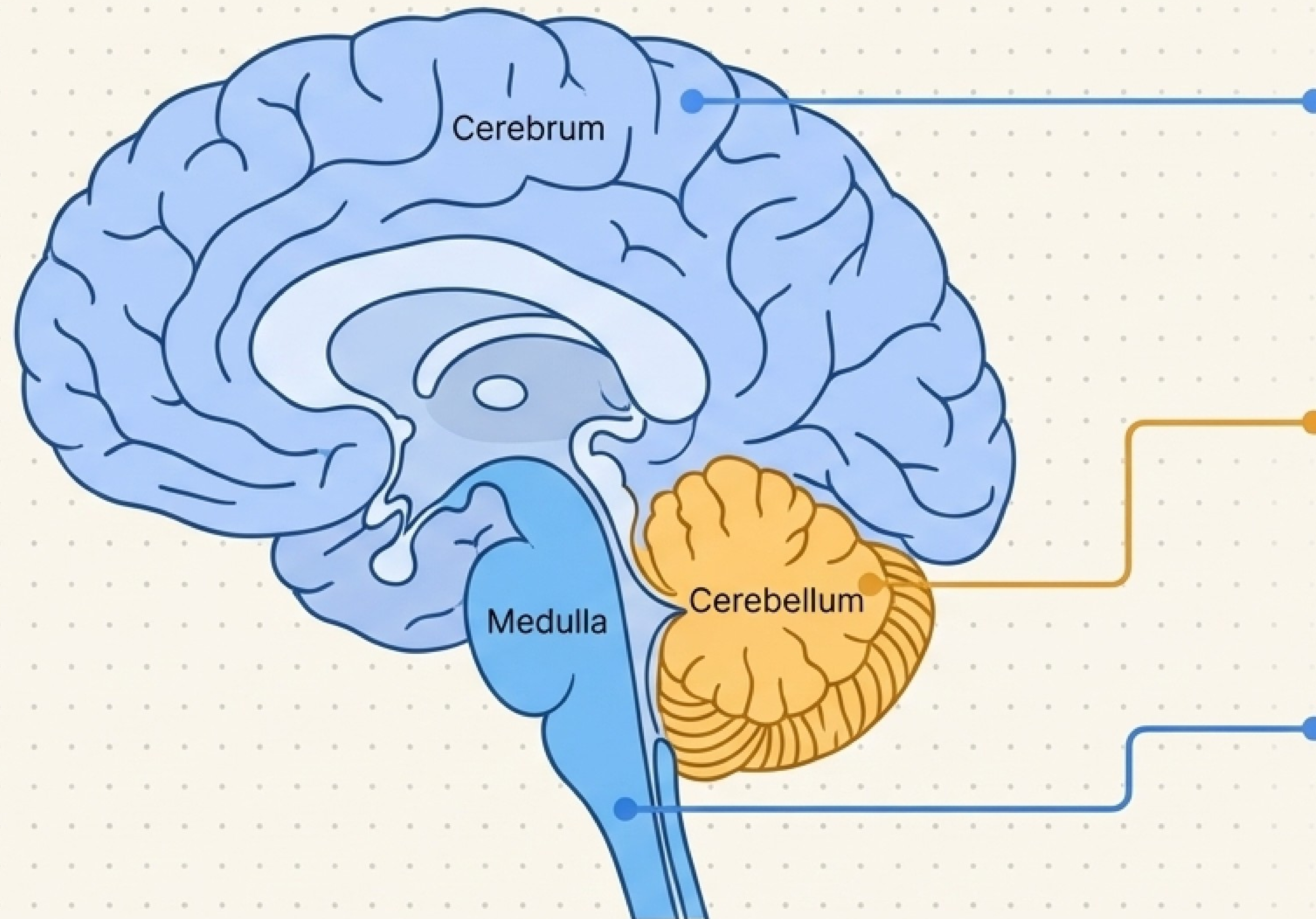


The central command centre

The brain controls thinking, memory, movement, and vital activities.



Mapping the functional zones of the brain



Cerebrum: Thinking, intelligence, and voluntary actions.



Cerebellum: Balance and coordination.



Medulla: Breathing and heartbeat.

Time for a knowledge check

Lock in your understanding with quick-fire active recall.



Quick-fire revision

What is the basic unit of the nervous system?

Neuron.

Which part of the body controls reflex actions?

Spinal cord.

Continue your active recall

Which part of the brain controls balance?

Cerebellum.

What is the long extension of a neuron called?

Axon.