

# Introduction

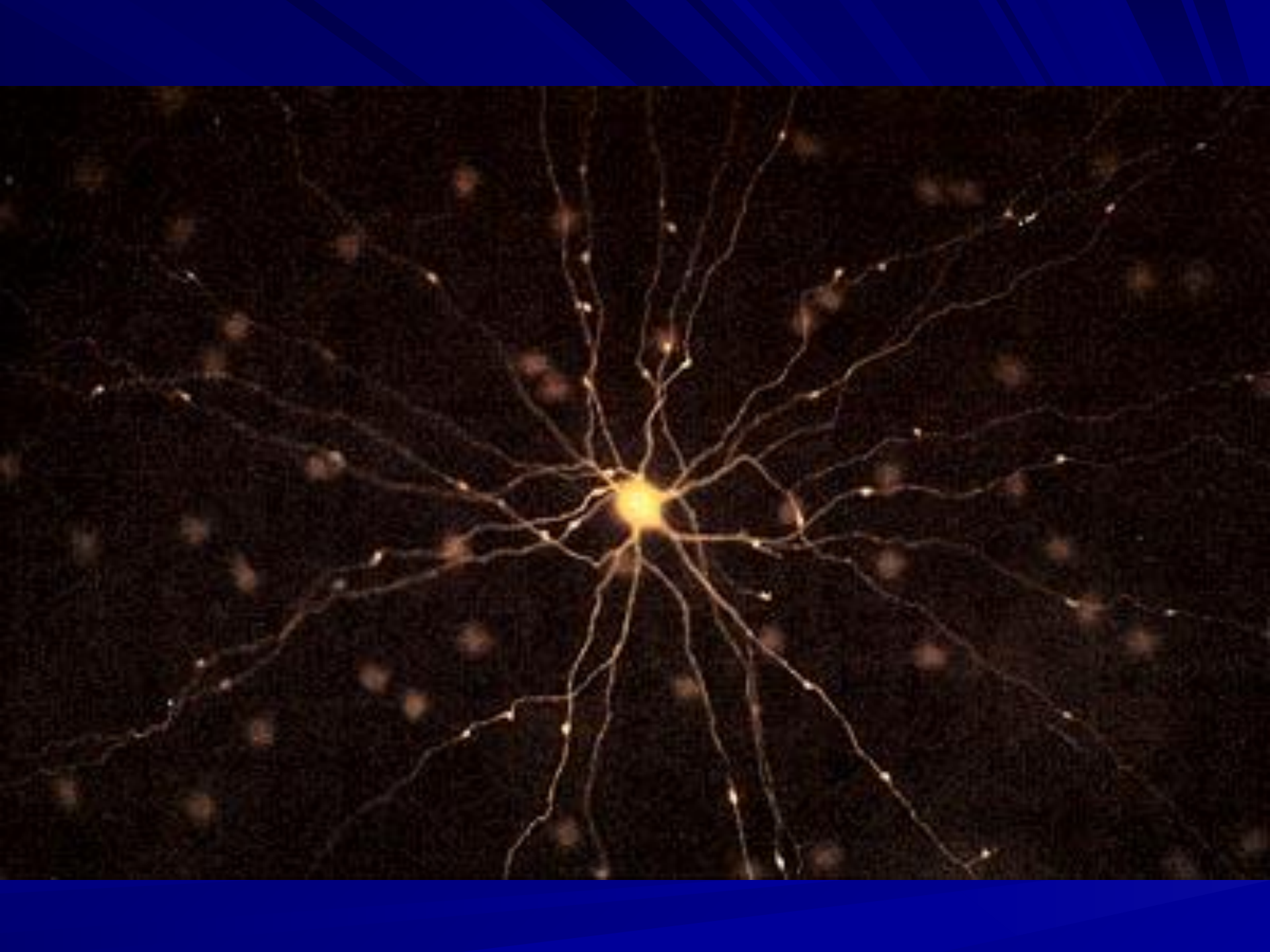
**Neuroscience** is a composite of several disciplines including

- neuroanatomy,
- neurophysiology,
- neurology,
- neuropathology,
- neuropharmacology,
- behavioral sciences,
- cell biology.



# *Methods for brain study*

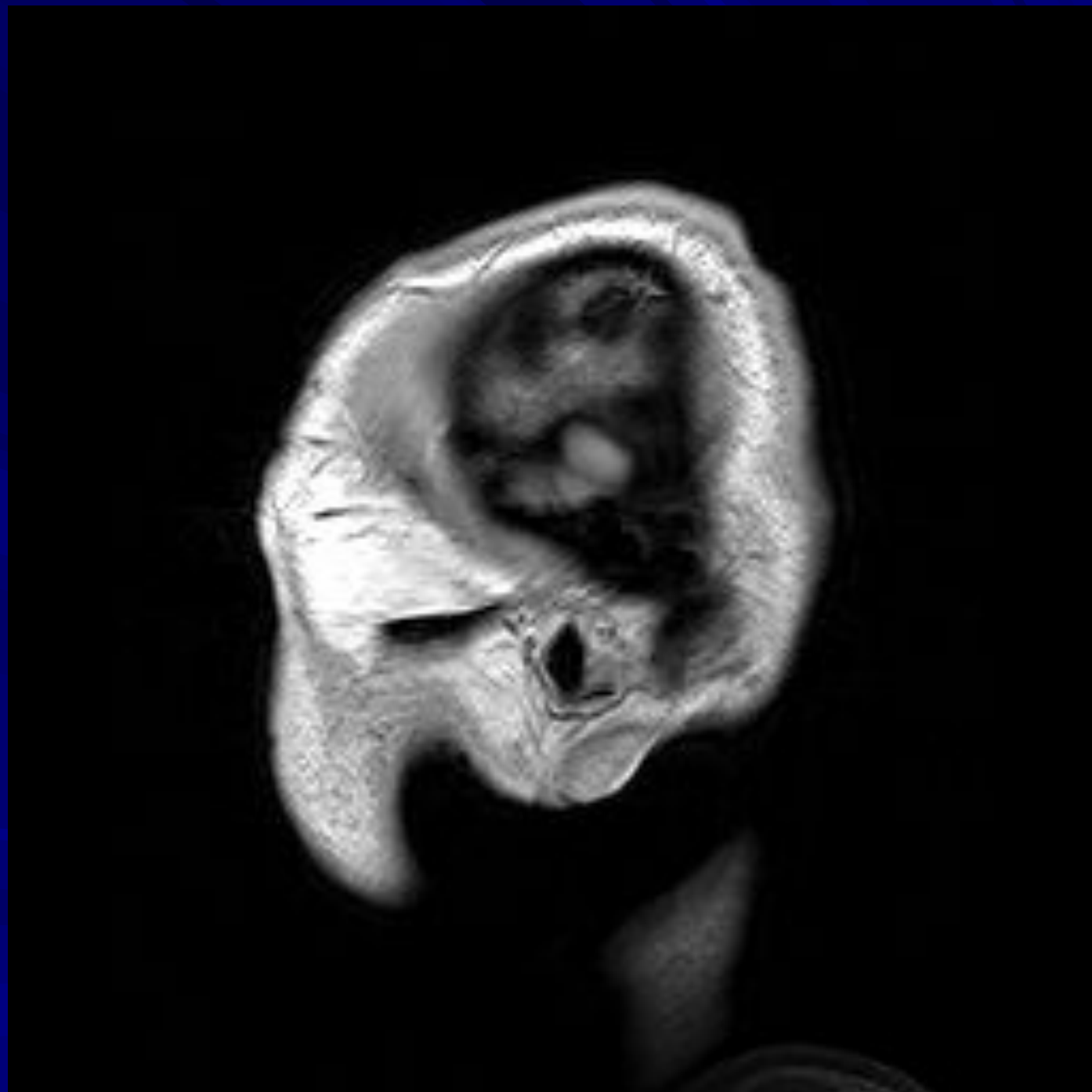
- Microscope
- Tomography (in vivo).
- EEG
- Biochemical methods
- Behavioral methods

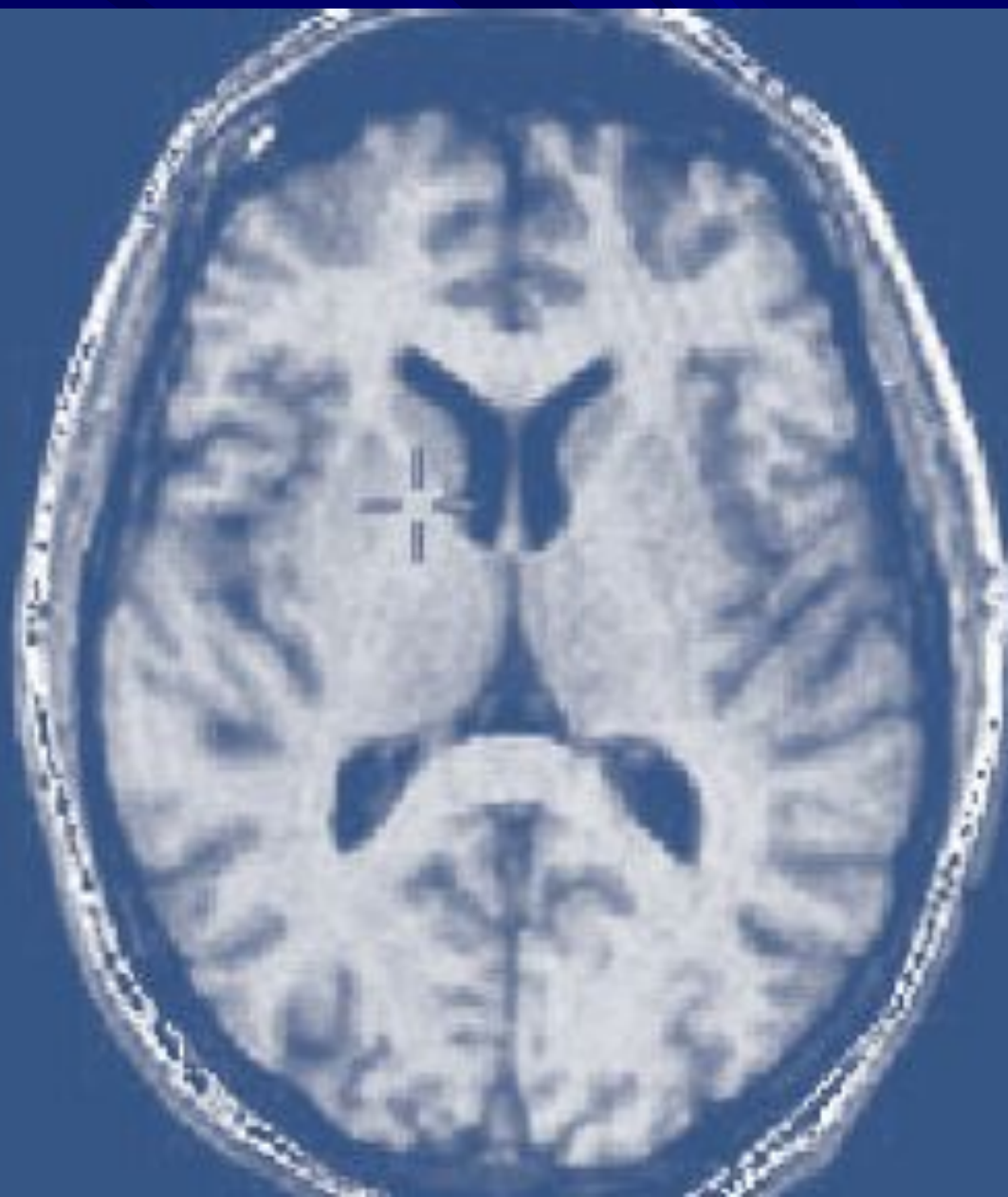




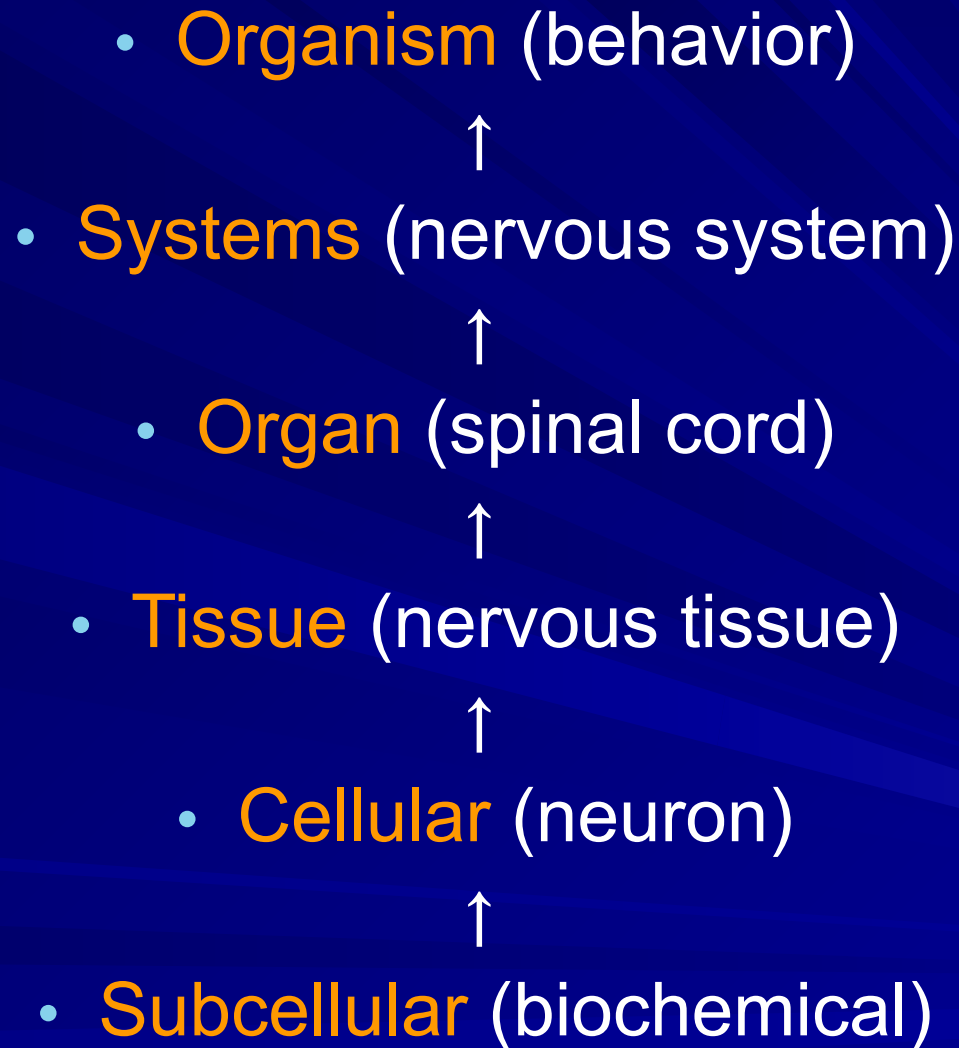








# Levels of study





# 4 kind of tissue

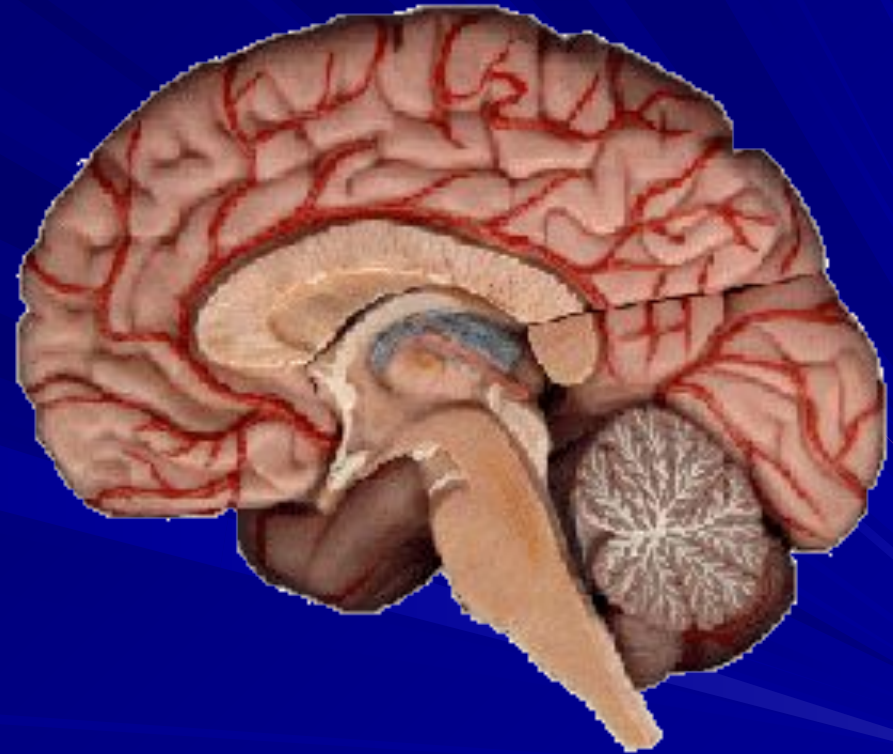
1. Epithelial tissue
2. Connective tissue (blood, bone)
3. Muscular tissue
4. Nervous tissue

# Systems

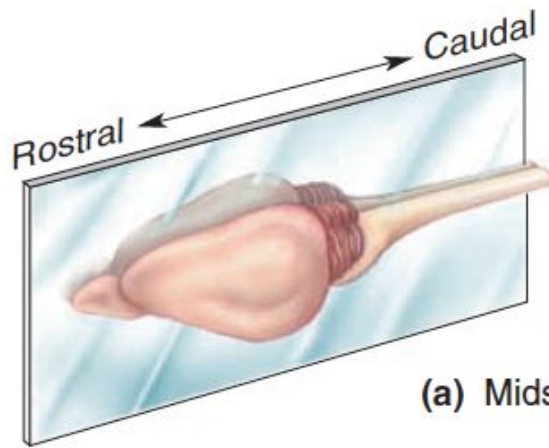
- digestive
- respiratory
- urinary
- reproductive
- nervous
- circulatory (vascular)
- immune

# Different views of the brain

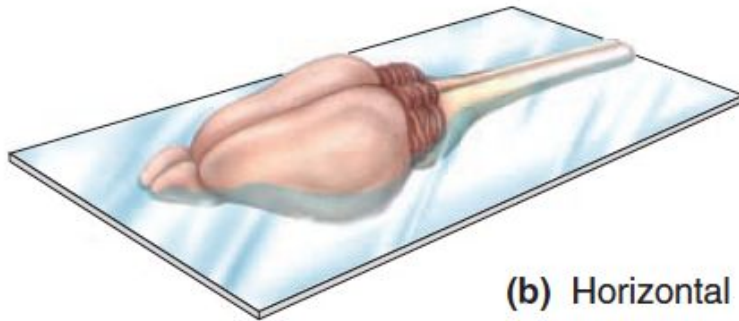
Lateral view of the brain



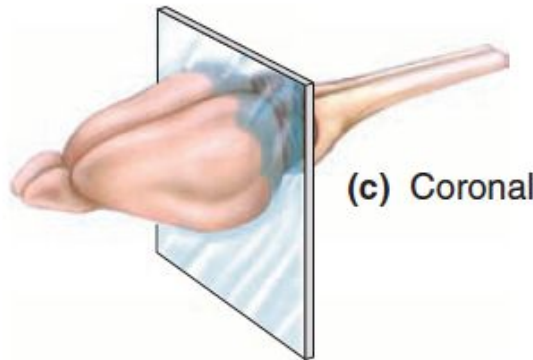
Inner view of the brain



(a) Midsagittal



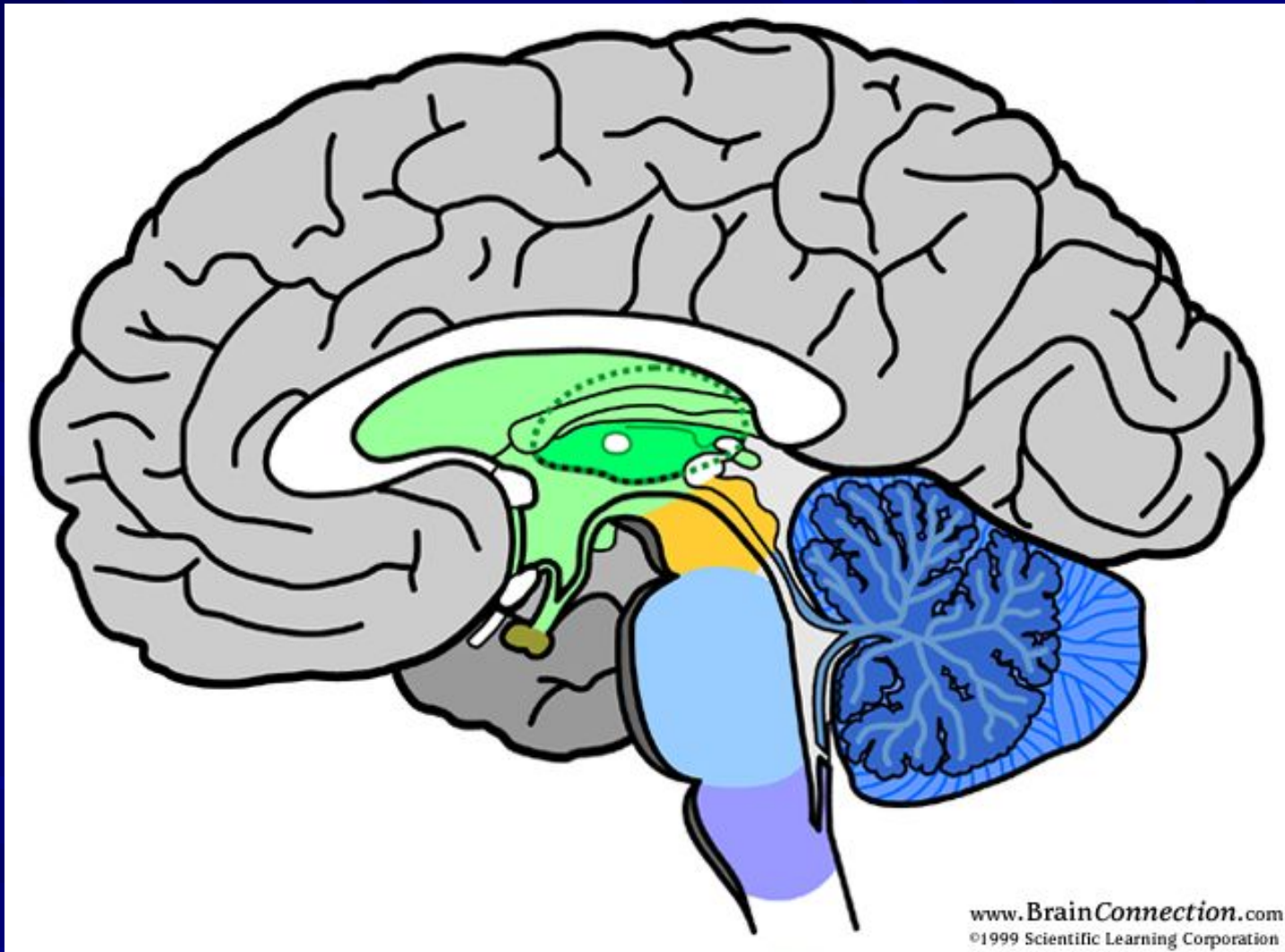
(b) Horizontal



(c) Coronal

# Anatomical planes of section

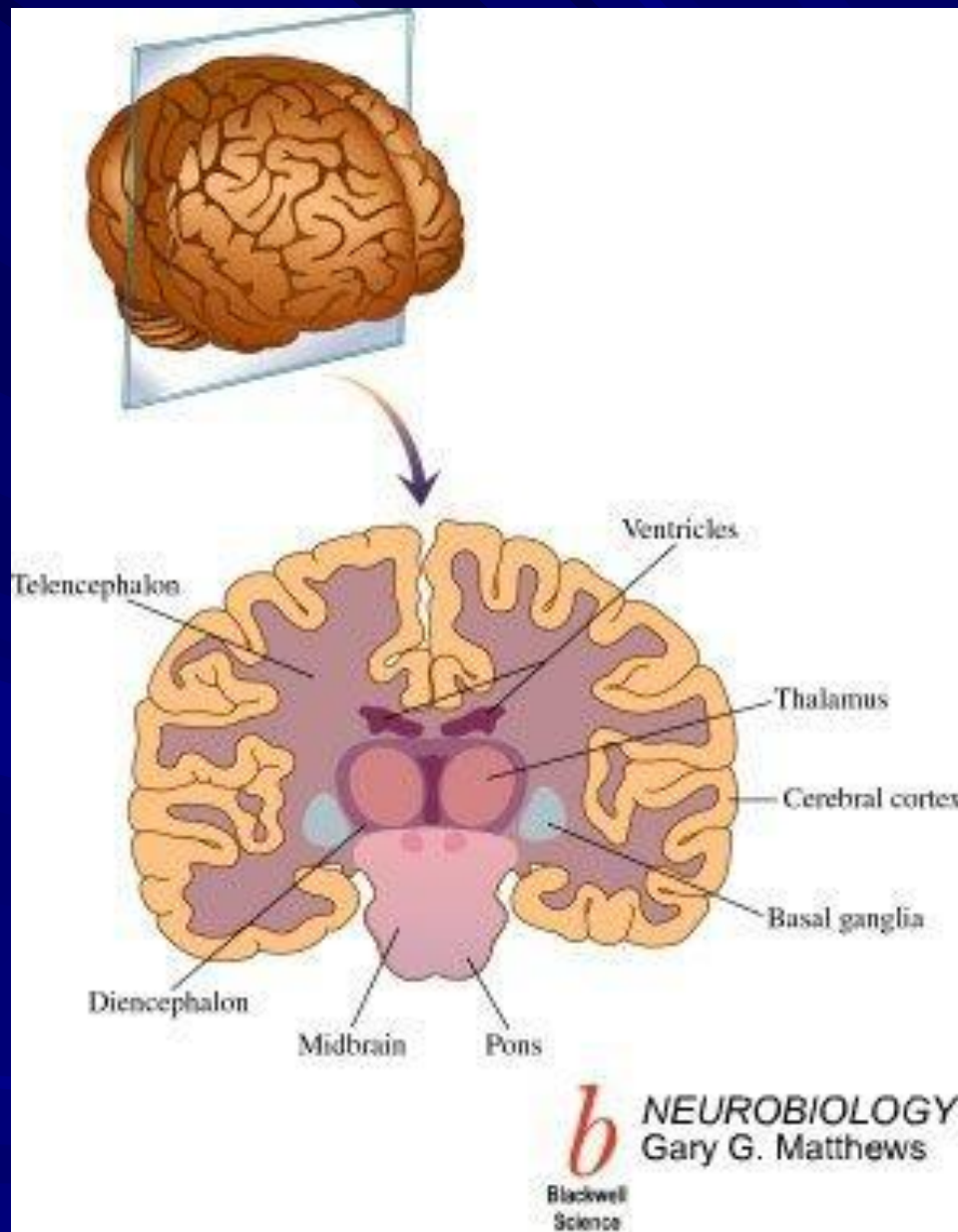
# Anatomical planes of section



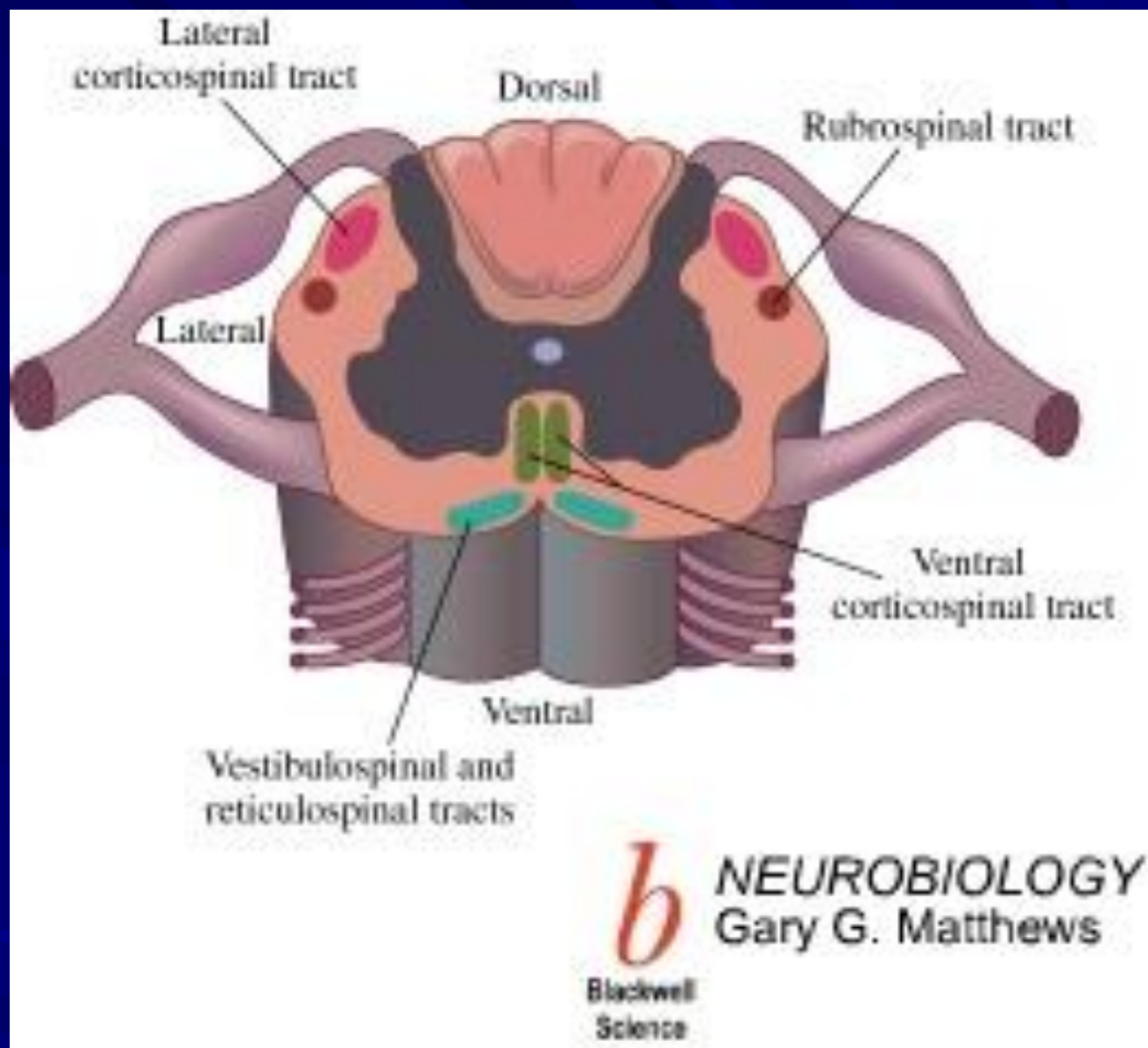
Midsagittal plane of section





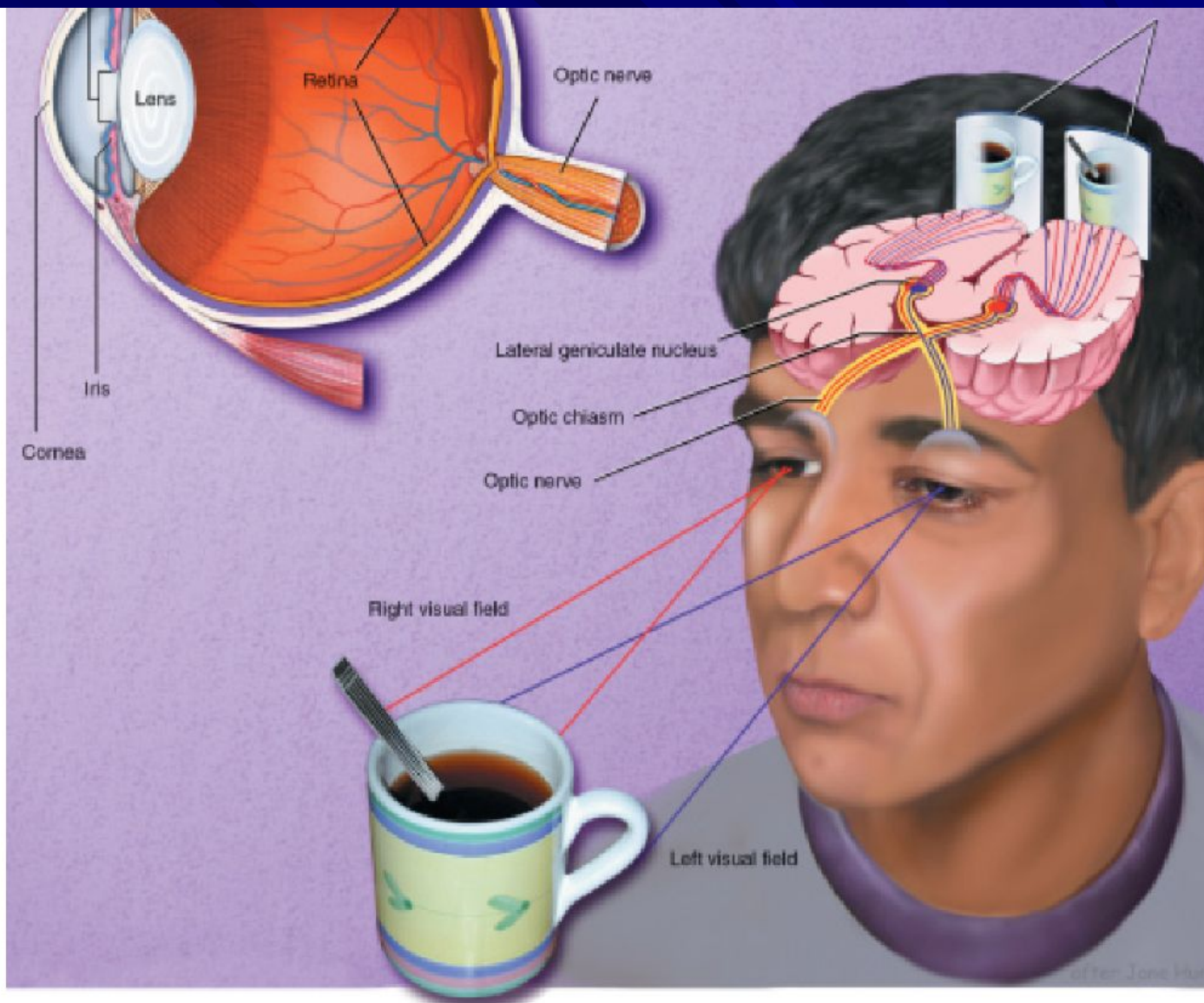


Frontal plane of section

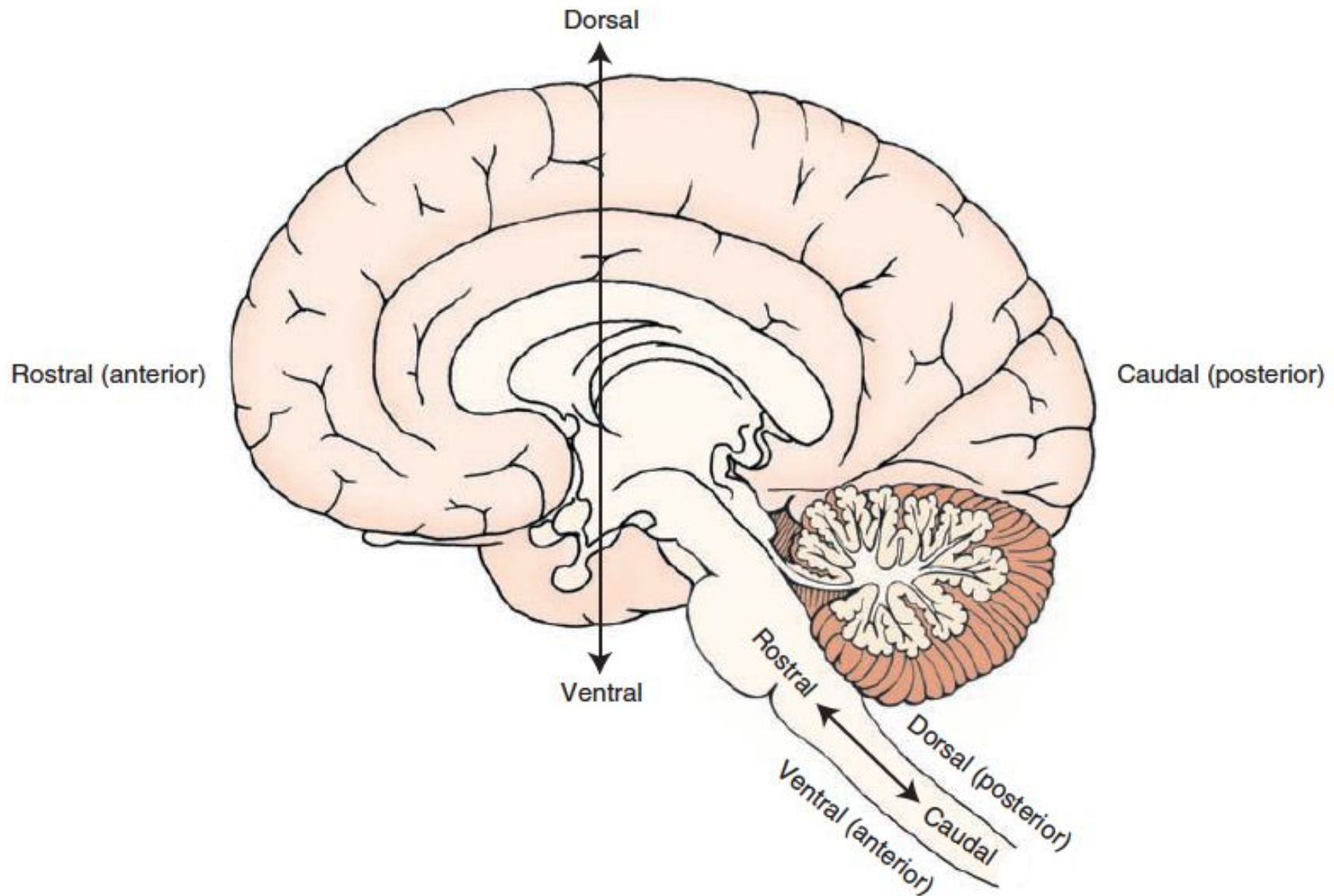


Horizontal plane of section

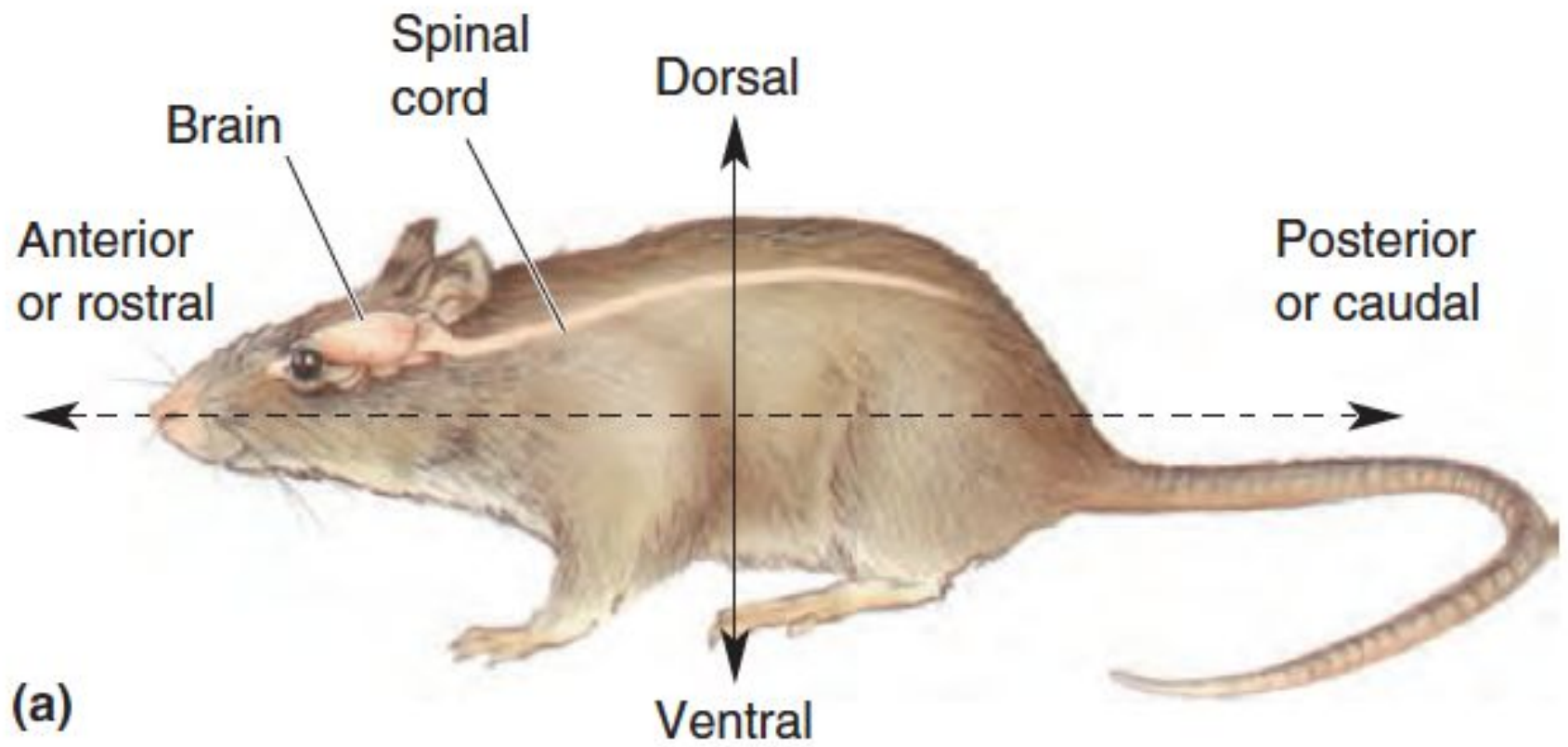


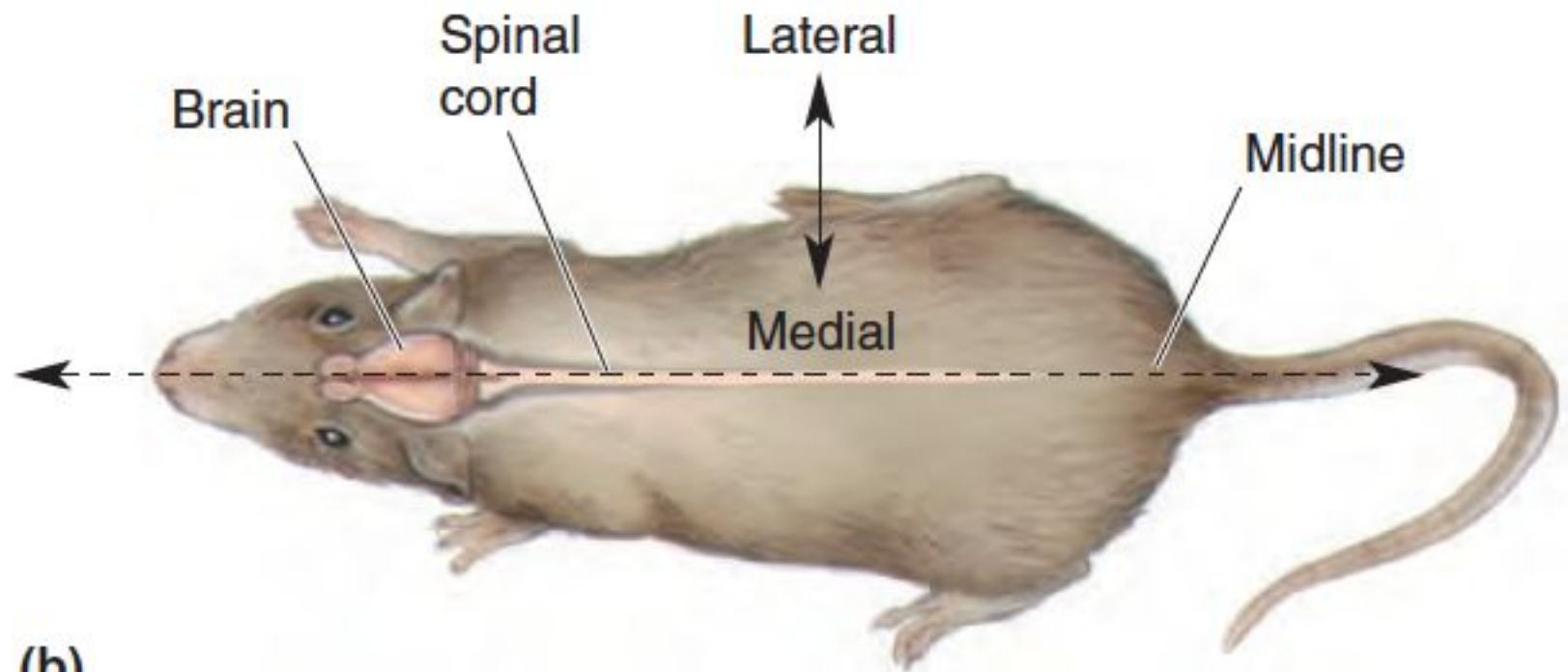


Horizontal plane of section



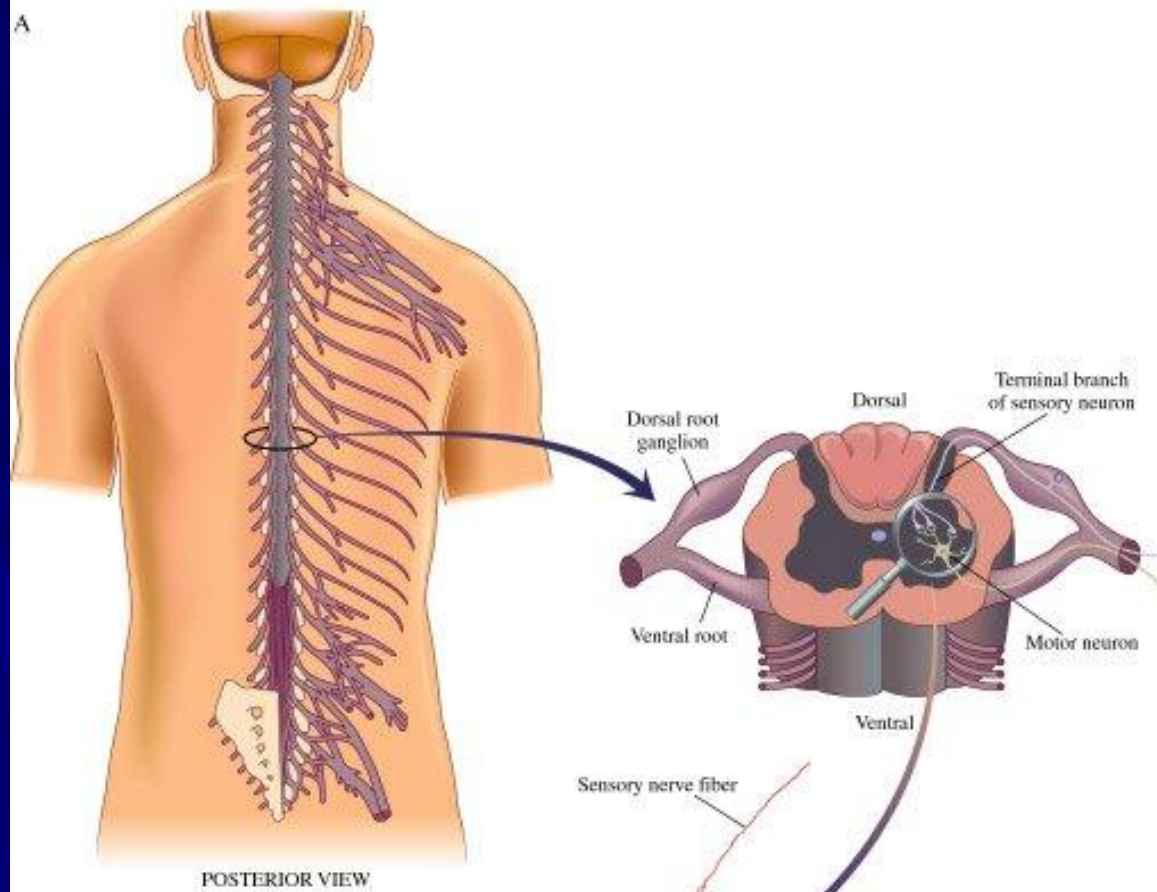




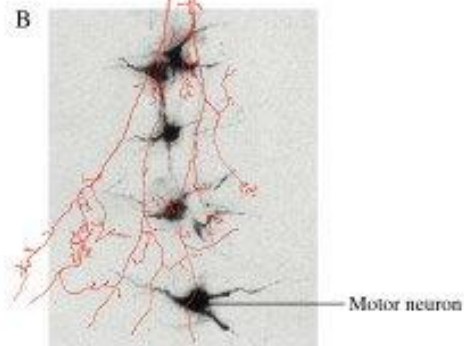


(b)

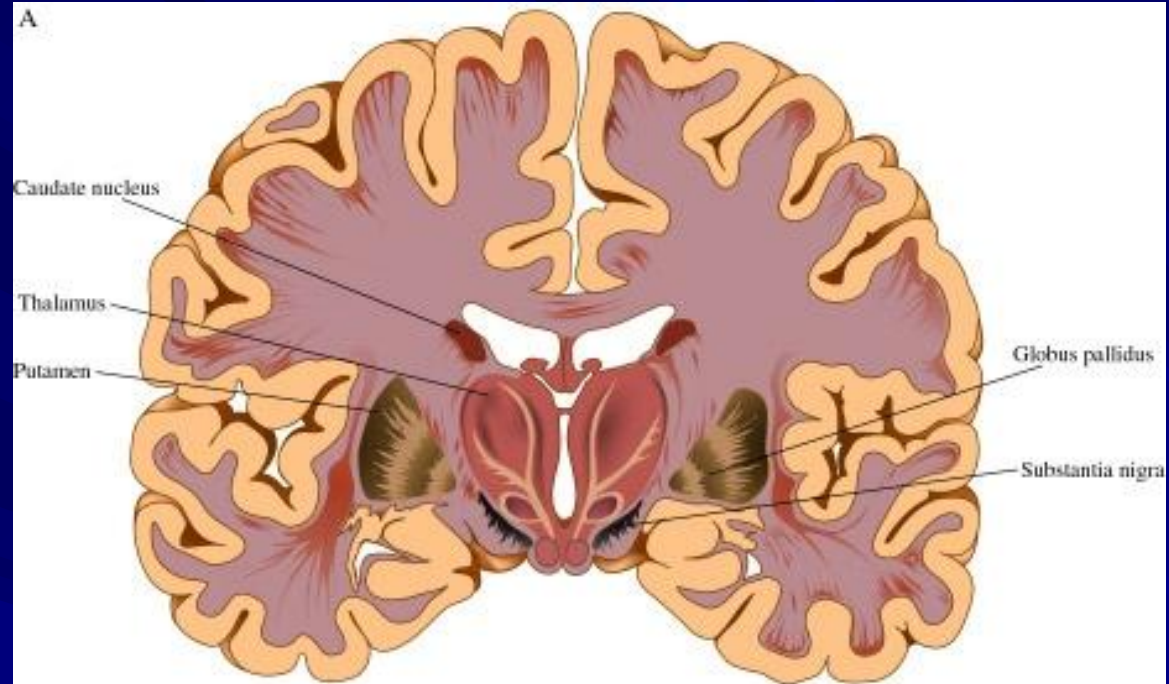
A



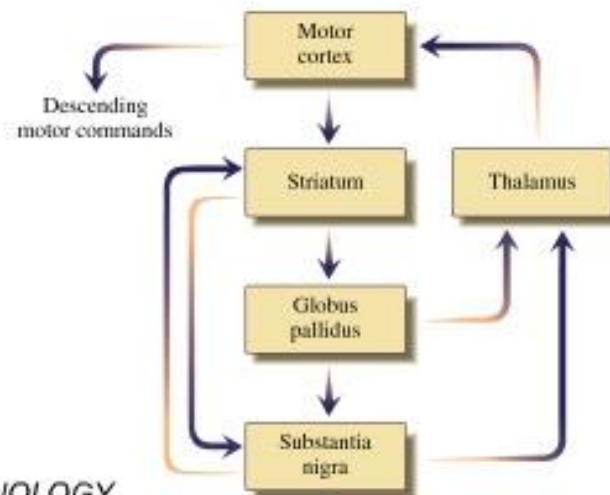
B



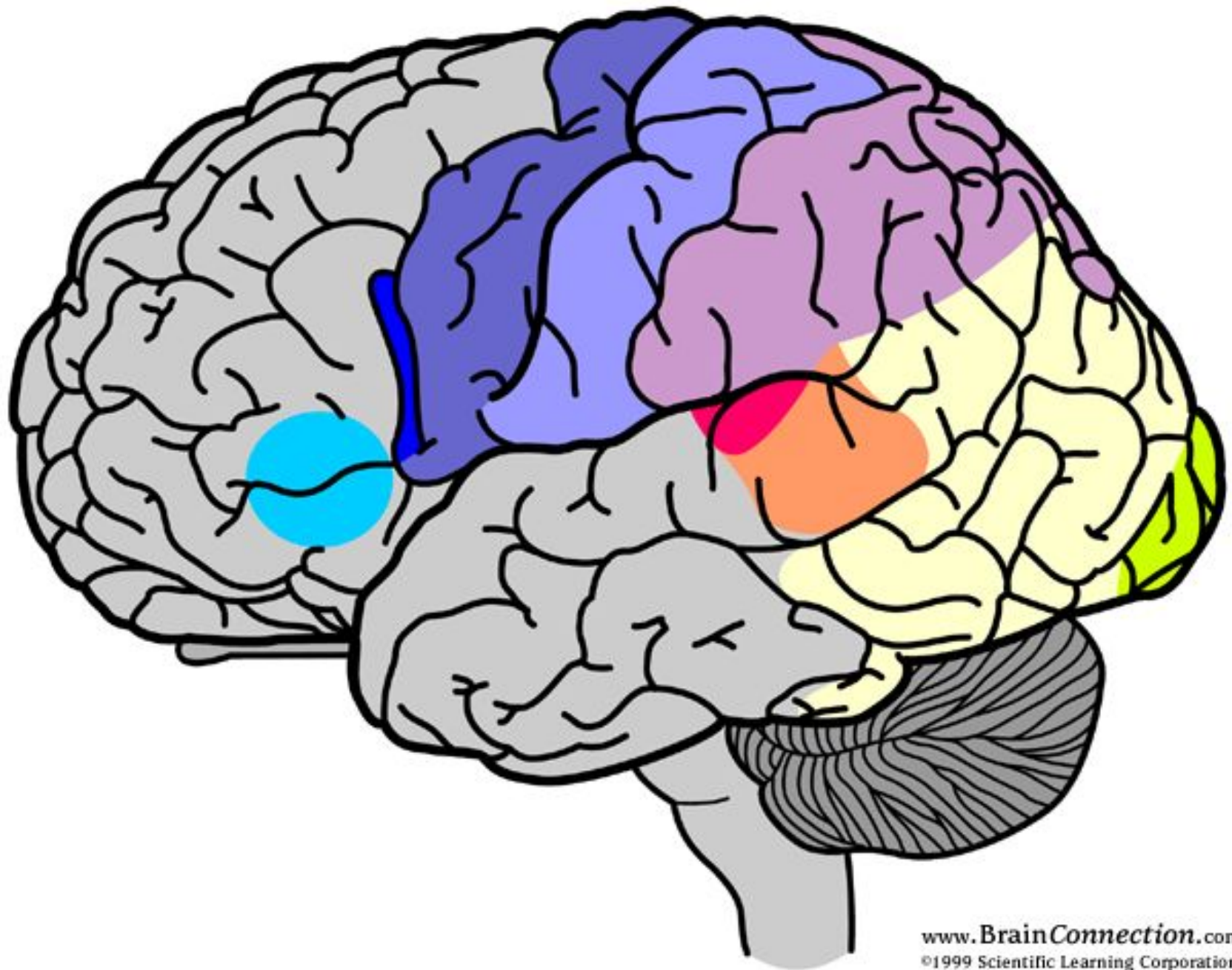
A



B









# Overview of the Nervous System

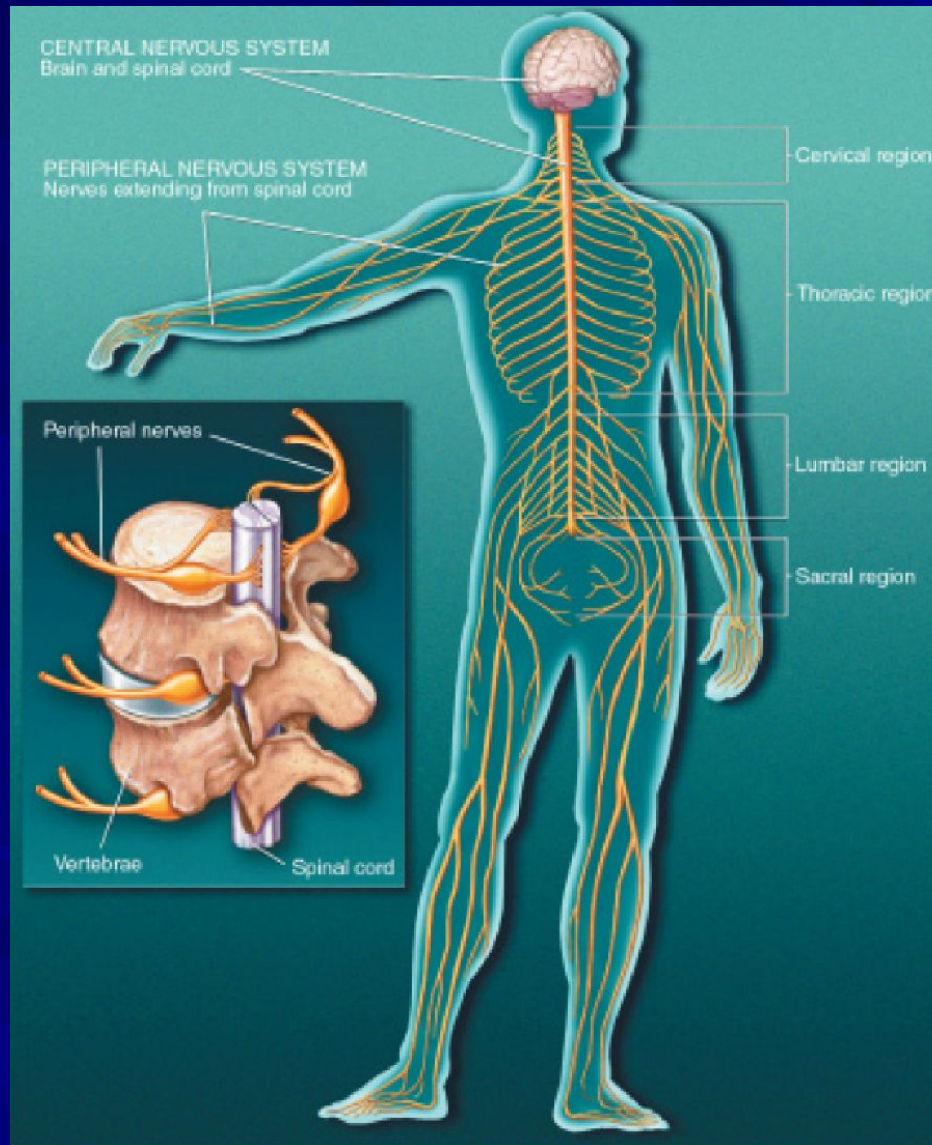
## The Central Nervous System (CNS)

- spinal cord
- brain

## The Peripheral Nervous System (PNS)

- spinal and cranial nerves
- sensory receptors
- nerve ganglia

# Overview of the Nervous System



# Functional subdivisions of the nervous system

## **The somatic nervous system**

- innervates mainly skeletal muscles and the receptors

## **The autonomic nervous system**

- innervates smooth muscles and glands

**autonomic nervous  
system**

```
graph TD; A[autonomic nervous system] --> B[parasympathetic]; A --> C[sympathetic]
```

**parasympathetic**

**sympathetic**

