

## Nervous Lab

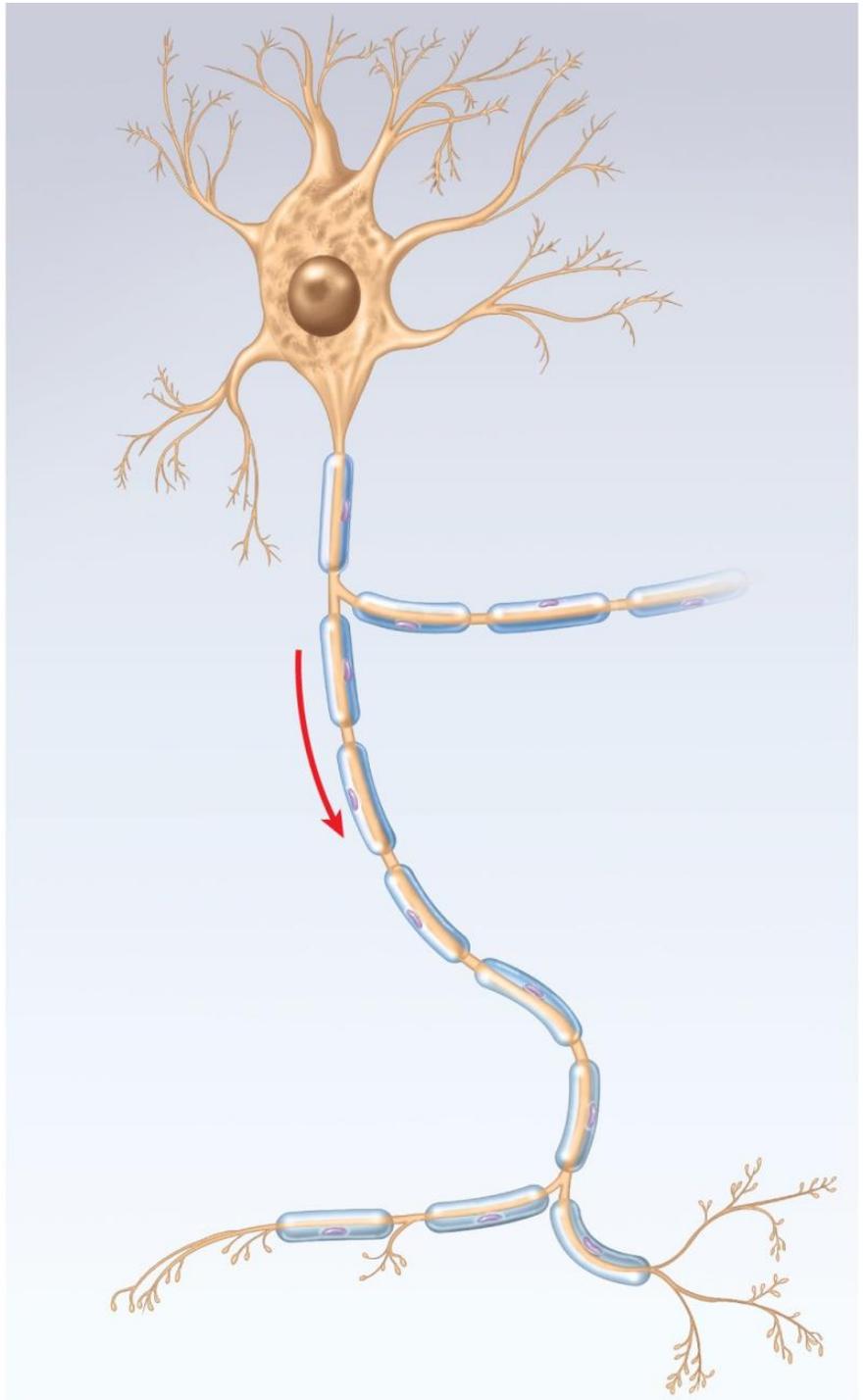
In this lab students will learn to identify structures of the nervous system (neuron, brain and spinal cord) and special senses (eye and ear). Use your textbook to identify and label the structures of the neuron, brain, spinal cord, eye and ear listed below. Watch the video on the Anatomy and Physiology website that is associated with this lab.

### Activity One: Nervous System and Special Senses

Please identify and label the following skeletal muscles listed below. Use your textbook to complete this activity.

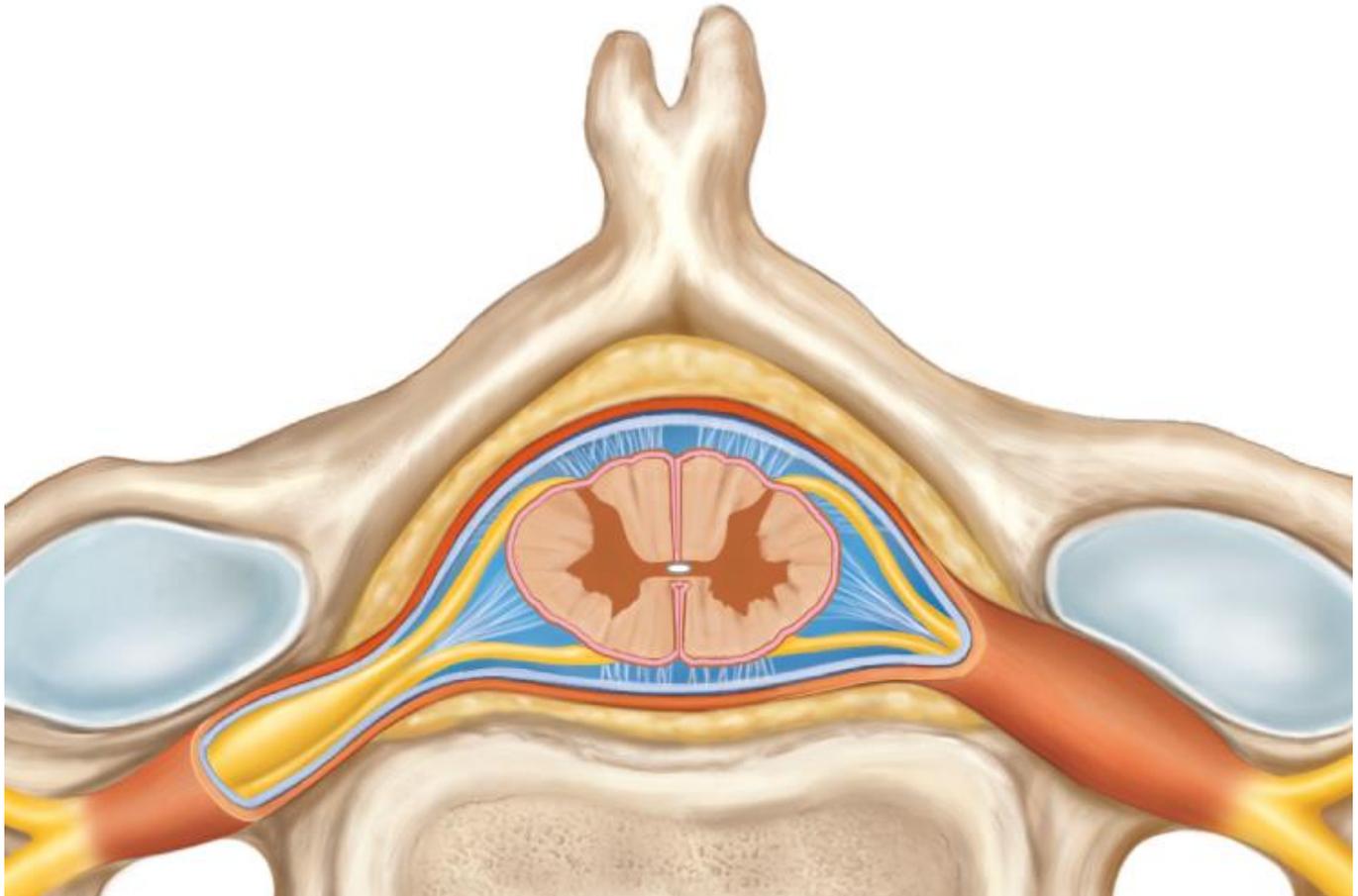
NEURON (Textbook: Figure 12.4 page 439)

- Dendrites
- Soma
- Nucleus
- Axon hillock
- Axon
- Schwann cell
- Myelin sheath
- Neurilemma
- Node of Ranvier
- Terminal arborization
- Synaptic knob



SPINAL CORD (Textbook: Figure 13.2 page 477)

- \_\_ Spinal nerve
- \_\_ Posterior root
- \_\_ Posterior root ganglion
- \_\_ Anterior root
- \_\_ Central canal
- \_\_ White matter
- \_\_ Gray matter
  - \_\_ Posterior horns
  - \_\_ Anterior horns



BRAIN (Figure 14.1 & 14.2 pages 509 & 511)

\_\_ Cerebrum

- \_\_ Frontal lobe
- \_\_ Parietal lobe
- \_\_ Temporal lobe
- \_\_ Occipital lobe
- \_\_ Longitudinal fissure
- \_\_ Lateral sulcus
- \_\_ Corpus callosum
- \_\_ Gyri
- \_\_ Sulci

Diencephalon

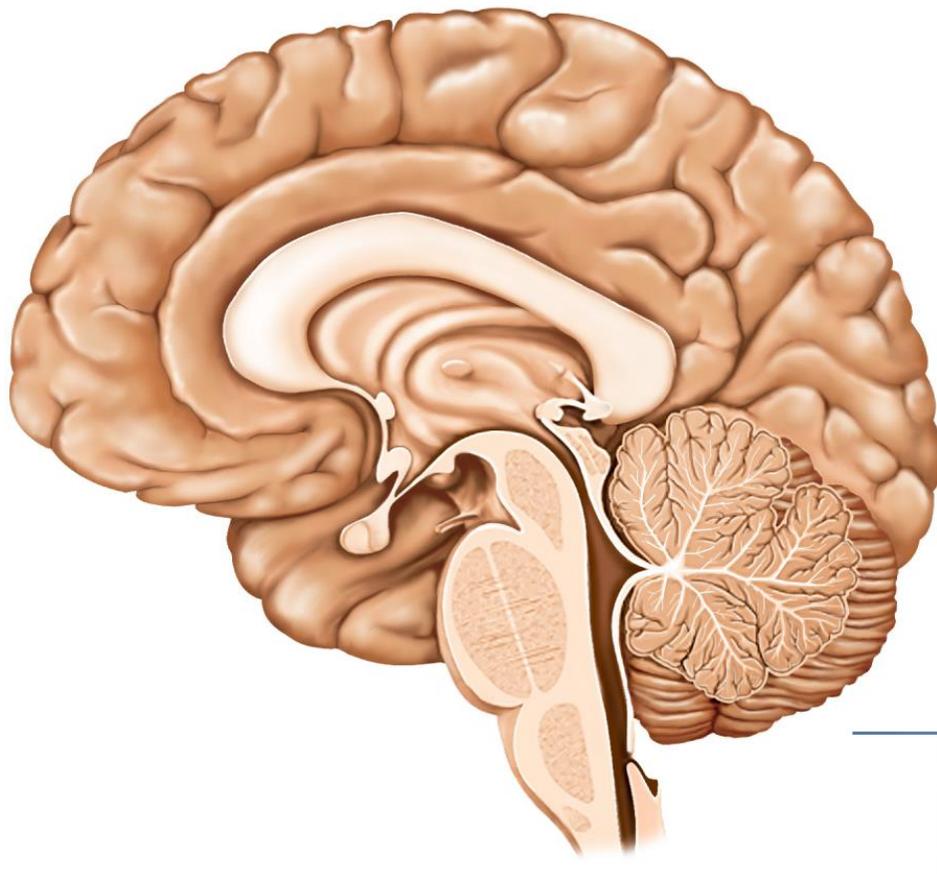
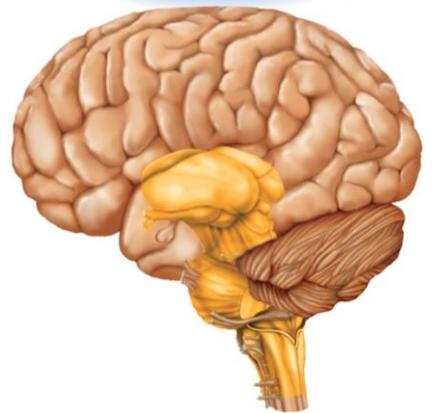
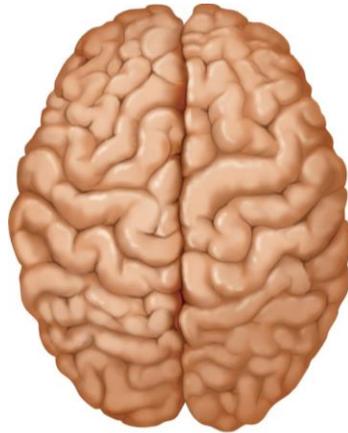
- \_\_ Thalamus
- \_\_ Hypothalamus

Brain stem

- \_\_ Midbrain
- \_\_ Pons
- \_\_ Medulla oblongata

\_\_ Cerebellum

\_\_ Pituitary gland (not part of the nervous system)



EAR (Textbook: Figure 16.11 page 594)

Outer ear

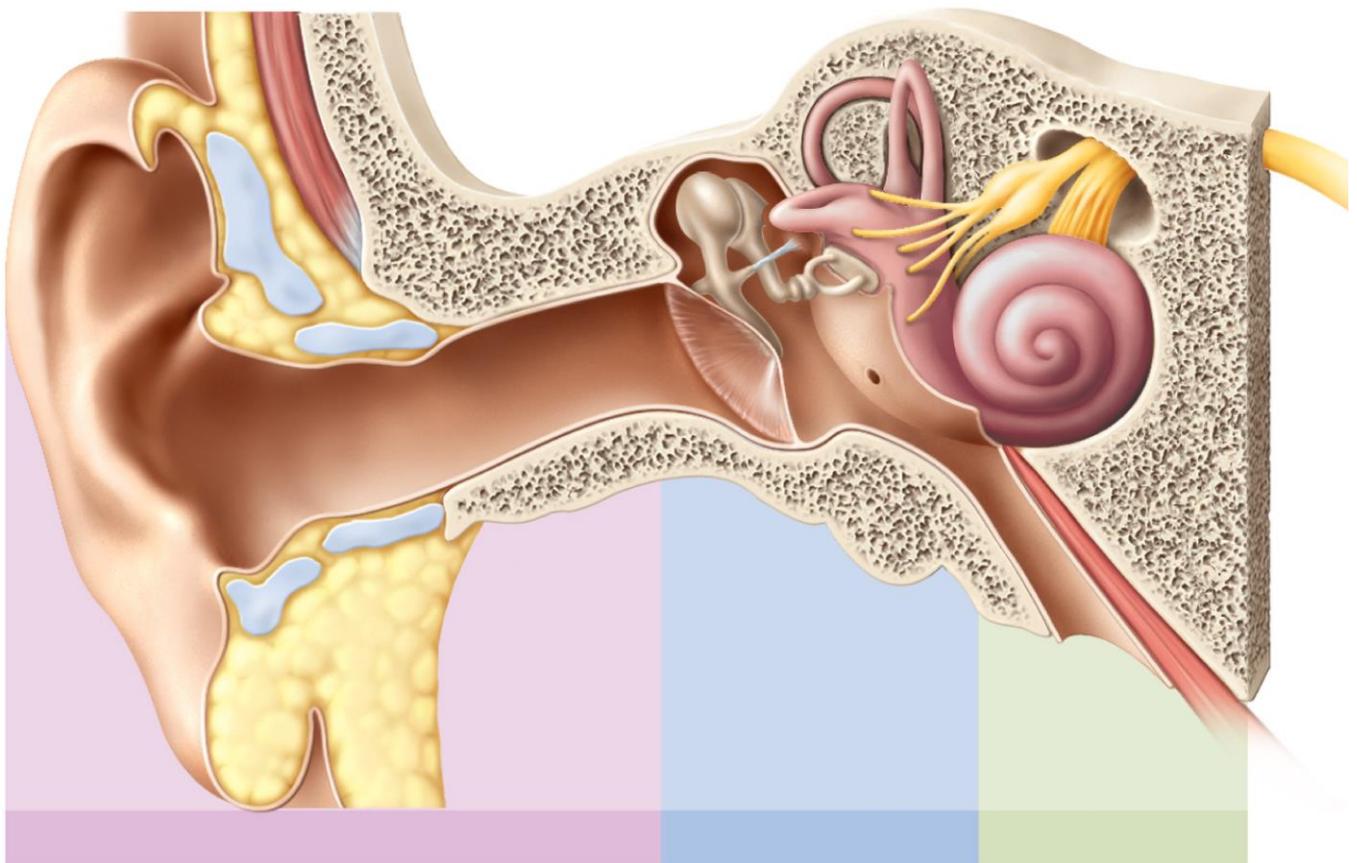
- Auricle
- Auditory canal

Middle ear

- Tympanic membrane
- Ossicles
  - Malleus
  - Incus
  - Stapes
- Auditory tube (also known as the Eustachian tube)

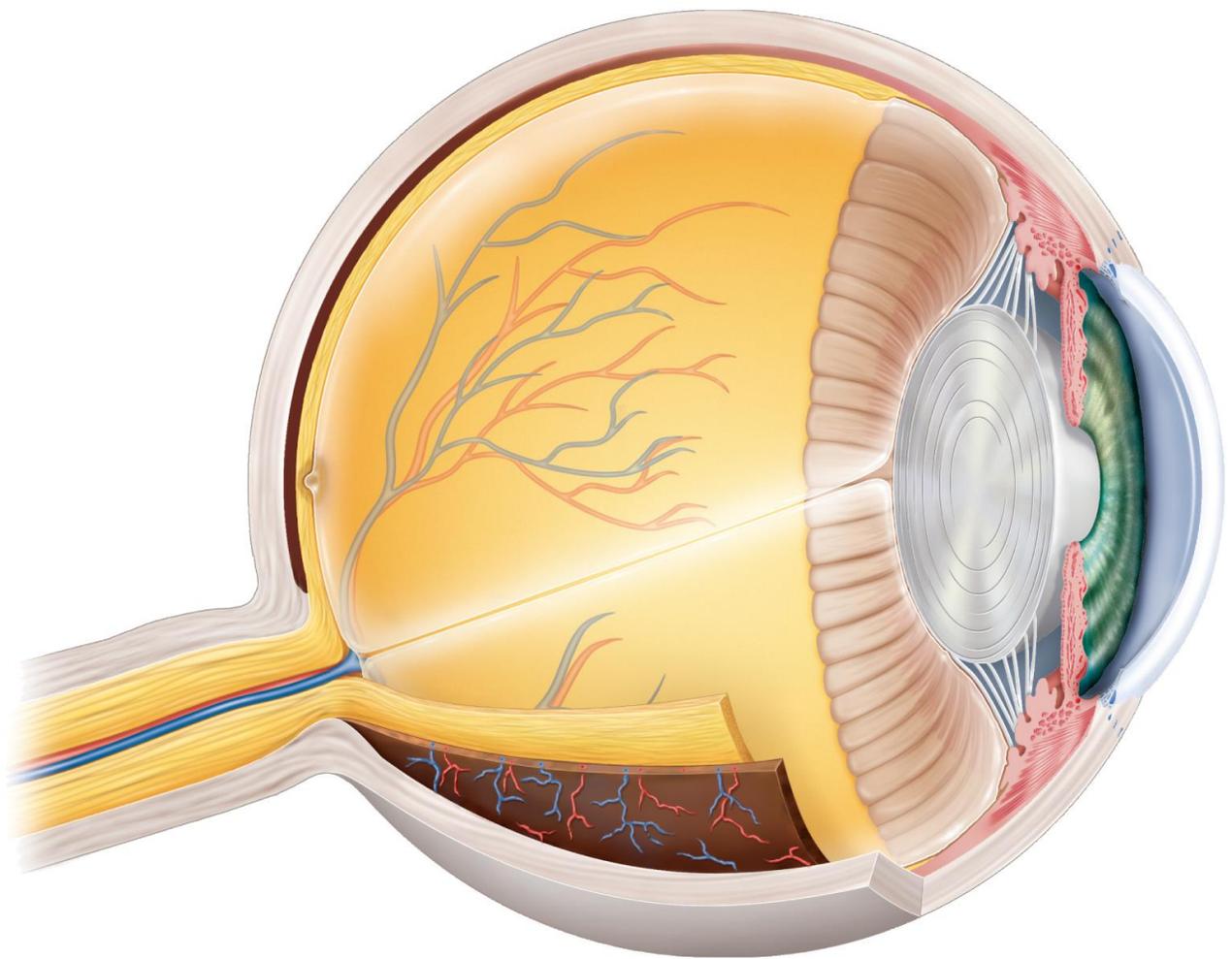
Inner ear

- Cochlea
- Cochlear nerve
- Semicircular ducts
- Vestibule
- Vestibular nerve



EYE (Figure 16.25 page 609)

- Cornea
- Iris
- Pupil
- Lens
- Suspensory ligaments
- Ciliary body
- Vitreous body
- Retina
- Optic disc
- Optic nerve
- Choroid
- Sclera



## Activity Two: Nervous System and Special Senses (Model)

Please identify and label the following structures of the neuron, spinal cord, brain, eye and ear (same as above) on the models below. Watch the Nervous Lab Video on the Anatomy and Physiology Website to help you complete this activity.

### NEURON

- Dendrites
- Soma
- Nucleus
- Axon hillock
- Axon
- Schwann cell
- Myelin sheath
- Neurilemma
- Node of Ranvier
- Terminal arborization
- Synaptic knob







# BRAIN

## — Cerebrum

- Frontal lobe
- Parietal lobe
- Temporal lobe
- Occipital lobe
- Longitudinal fissure
- Lateral sulcus
- Corpus callosum
- Gyri
- Sulci

## Diencephalon

- Thalamus
- Hypothalamus

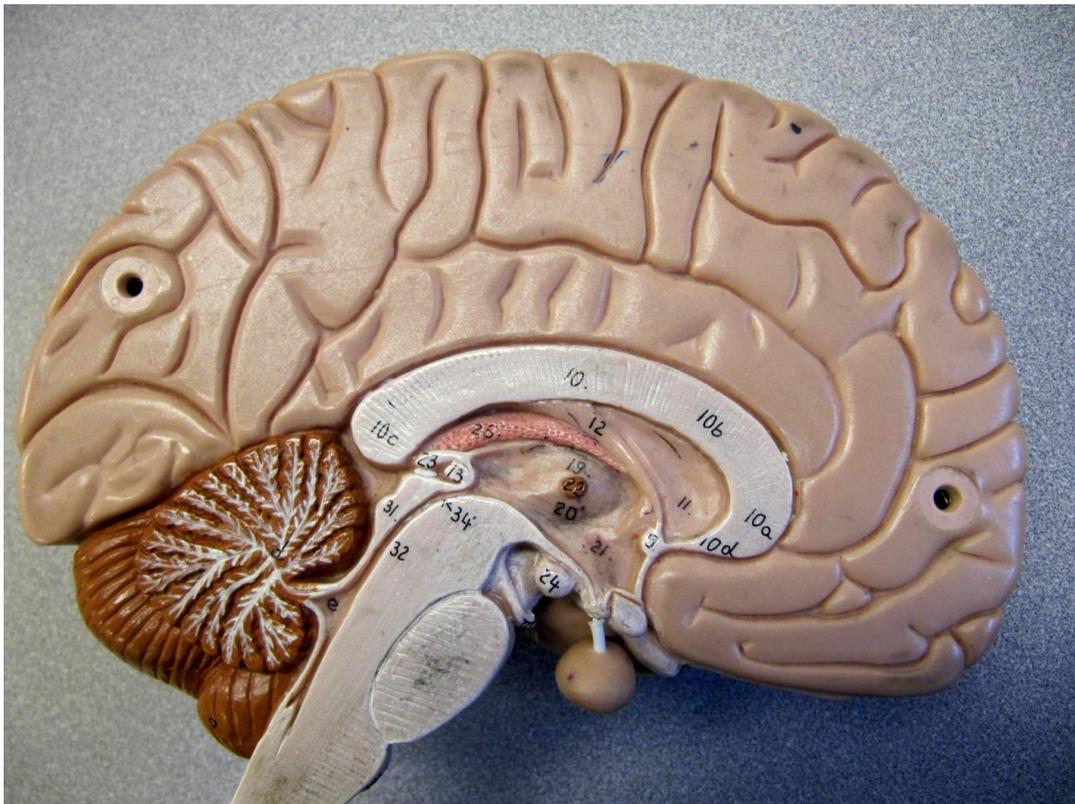
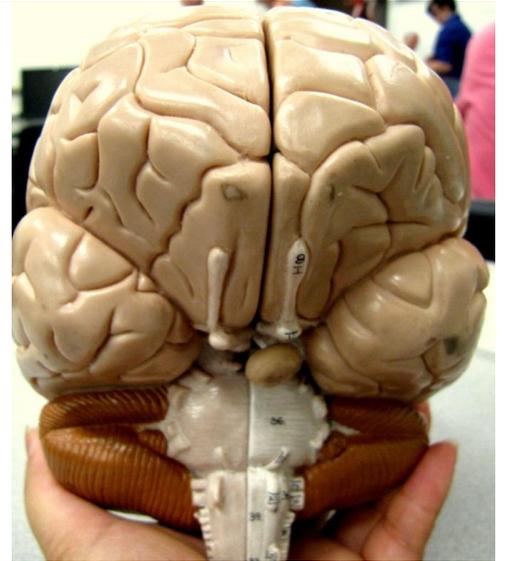
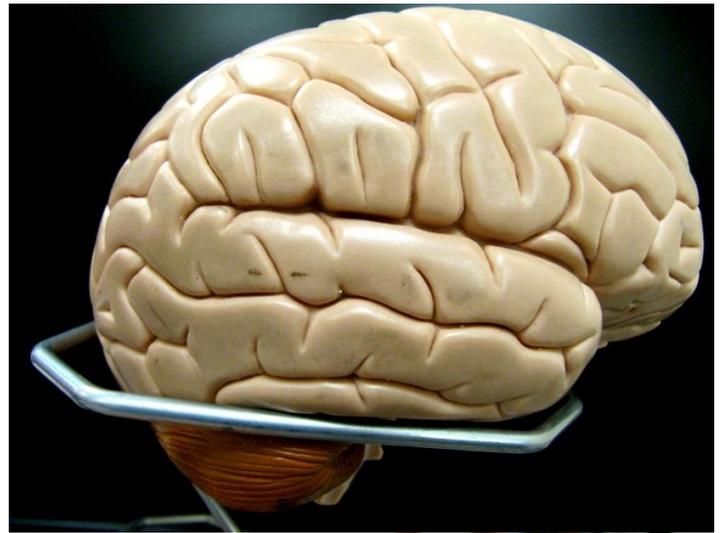
## Brain stem

- Midbrain
- Pons
- Medulla oblongata

## — Cerebellum

## — Pituitary gland

(not part of the nervous system)



## EAR

### Outer ear

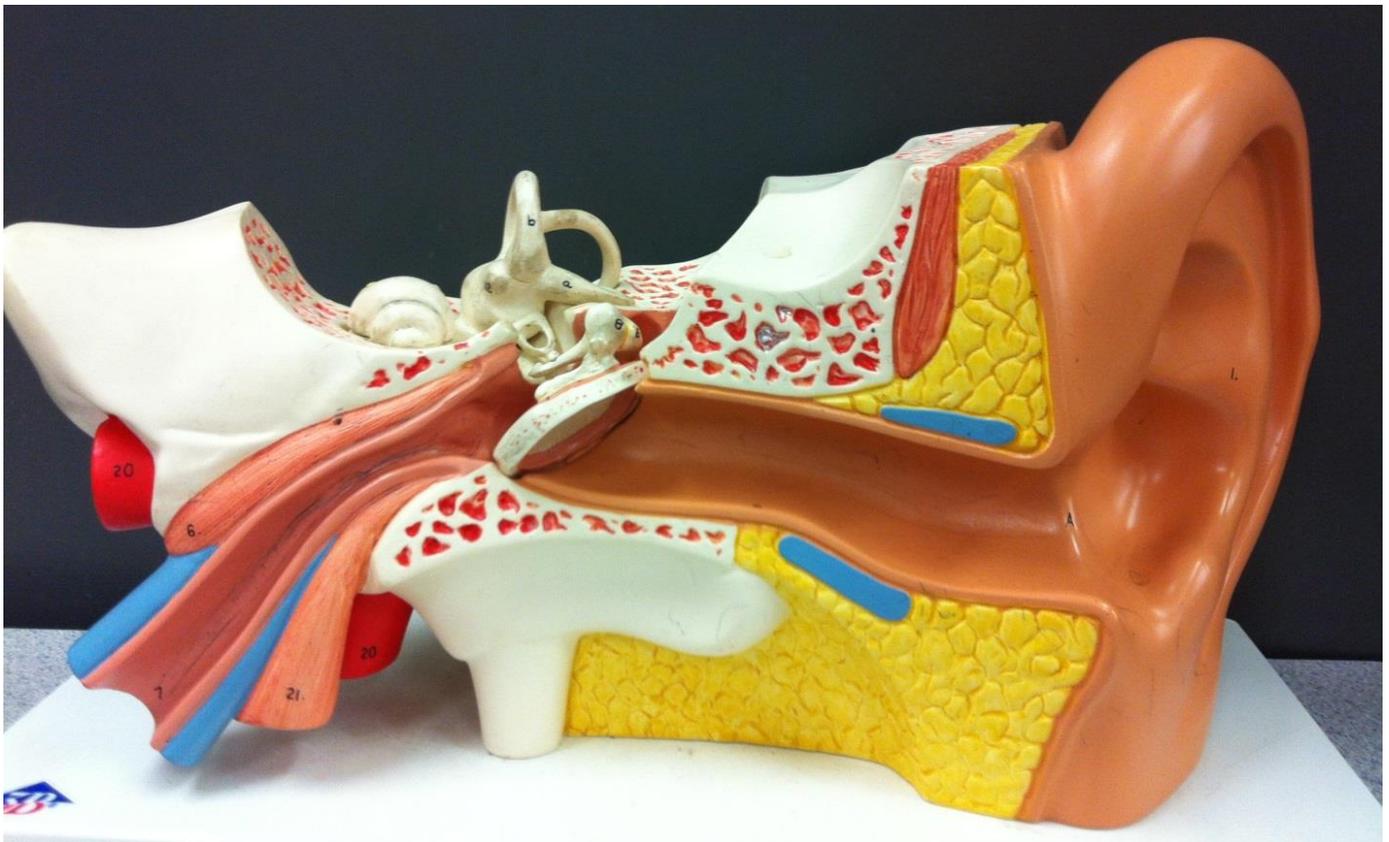
- \_\_ Auricle
- \_\_ Auditory canal

### Middle ear

- \_\_ Tympanic membrane
- \_\_ Ossicles
  - \_\_ Malleus
  - \_\_ Incus
  - \_\_ Stapes
- \_\_ Auditory tube (also known as the Eustachian tube)

### Inner ear

- \_\_ Cochlea
- \_\_ Cochlear nerve
- \_\_ Semicircular ducts
- \_\_ Vestibule
- \_\_ Vestibular nerve



## EYE

- \_\_ Cornea
- \_\_ Iris
- \_\_ Pupil
- \_\_ Lens
- \_\_ Suspensory ligaments
- \_\_ Ciliary body
- \_\_ Vitreous body
- \_\_ Retina
- \_\_ Optic disc
- \_\_ Optic nerve
- \_\_ Choroid
- \_\_ Sclera



