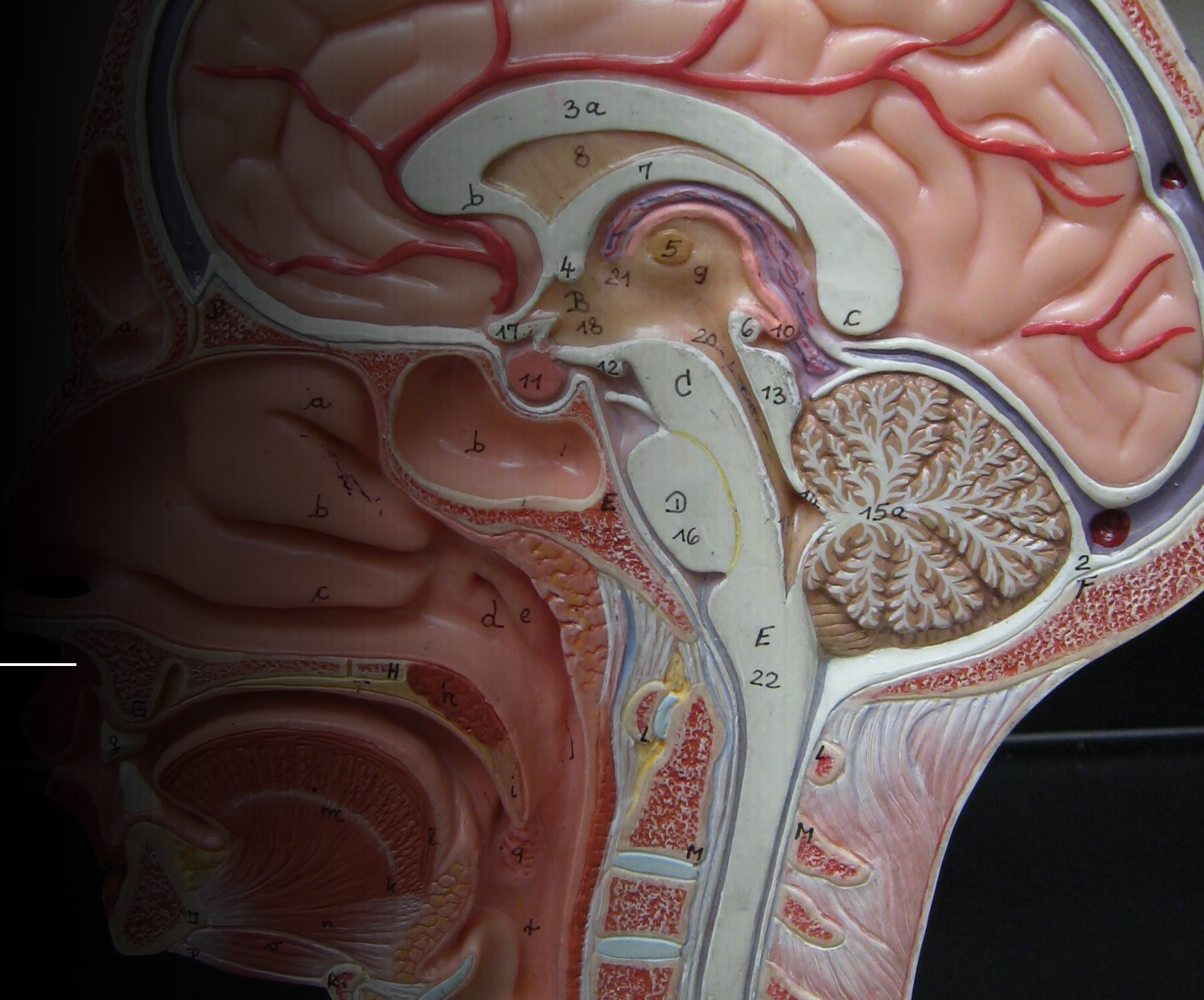
Lab Practical 4 Review Pictures

Nervous System



Chapters Reviewed

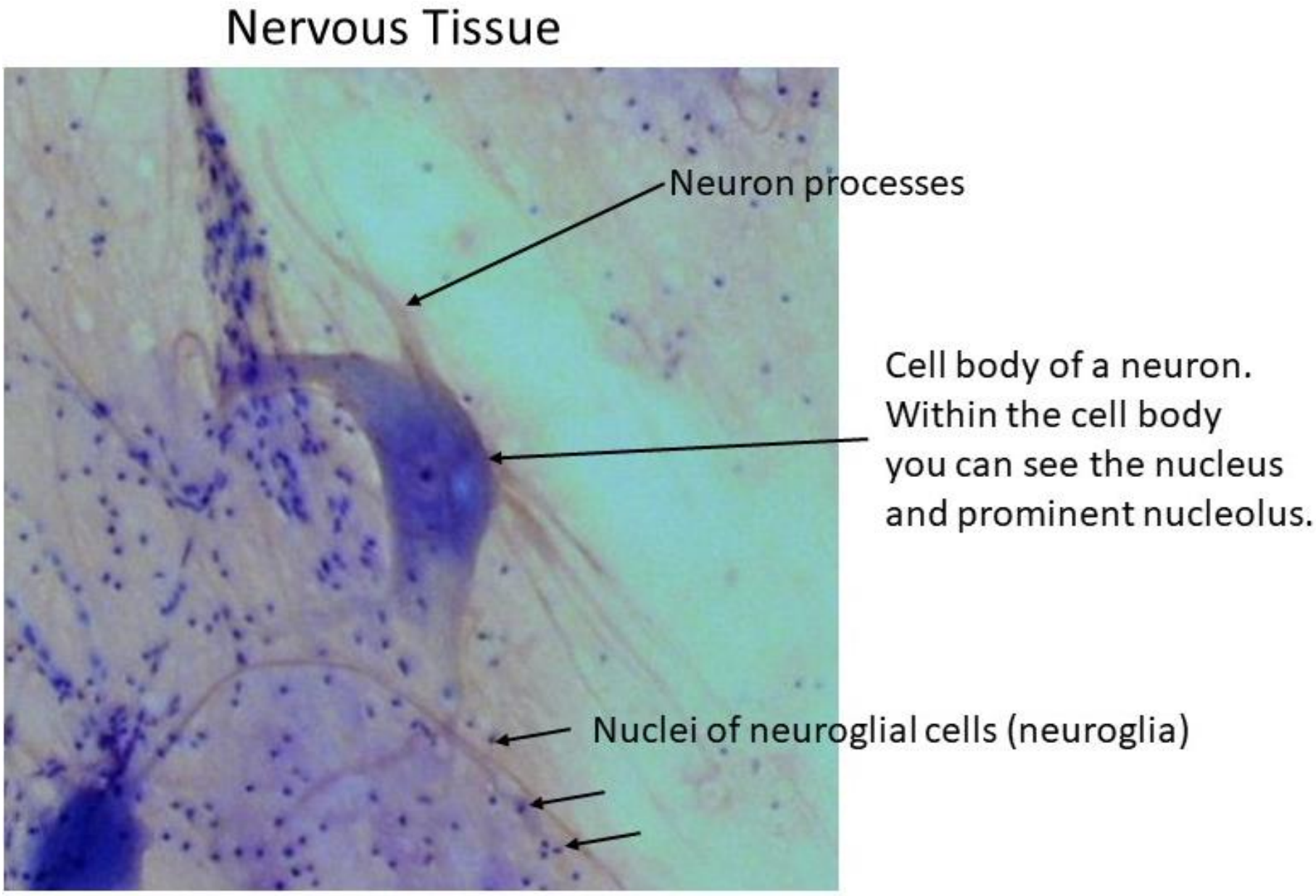
Nervous Tissue

Brain and Cranial Nerves

Spinal Cord and Spinal Nerves

- Study the picture of nervous tissue and the labeled models as part of your online lab experience in you are in the online anatomy class.
- Be familiar with these pictures and each label. These models are used for your lab exam if you are in the face-to-face class
- View Dr. Zimmerman's Dissection videos of the sheep brain and the labeled dissected brain. Know all the labels of the structures within this PowerPoint.
- Review Dr. Gannon's instructional videos over the nervous system models linked in your lab e-book. Be sure to study all organs and structures that are reviewed.
- Use the "slide show" and click on the boxes covering the labels on the self-quiz slides to reveal the name of the structure or you can click on the box and move it.

Histology Slide of Nervous Tissue



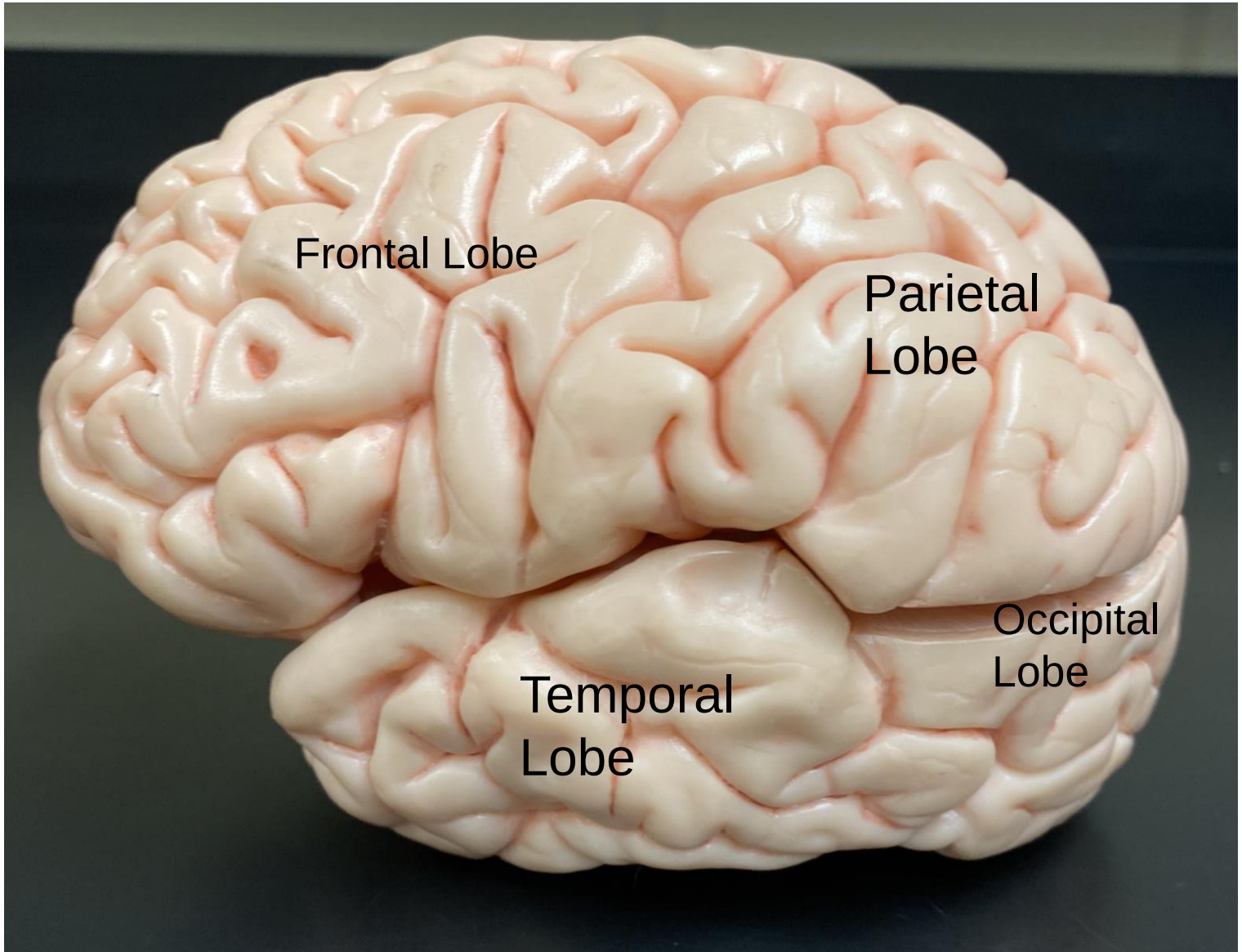
Brain and Cranial Nerves

External Structures and Regions of the Brain to Know

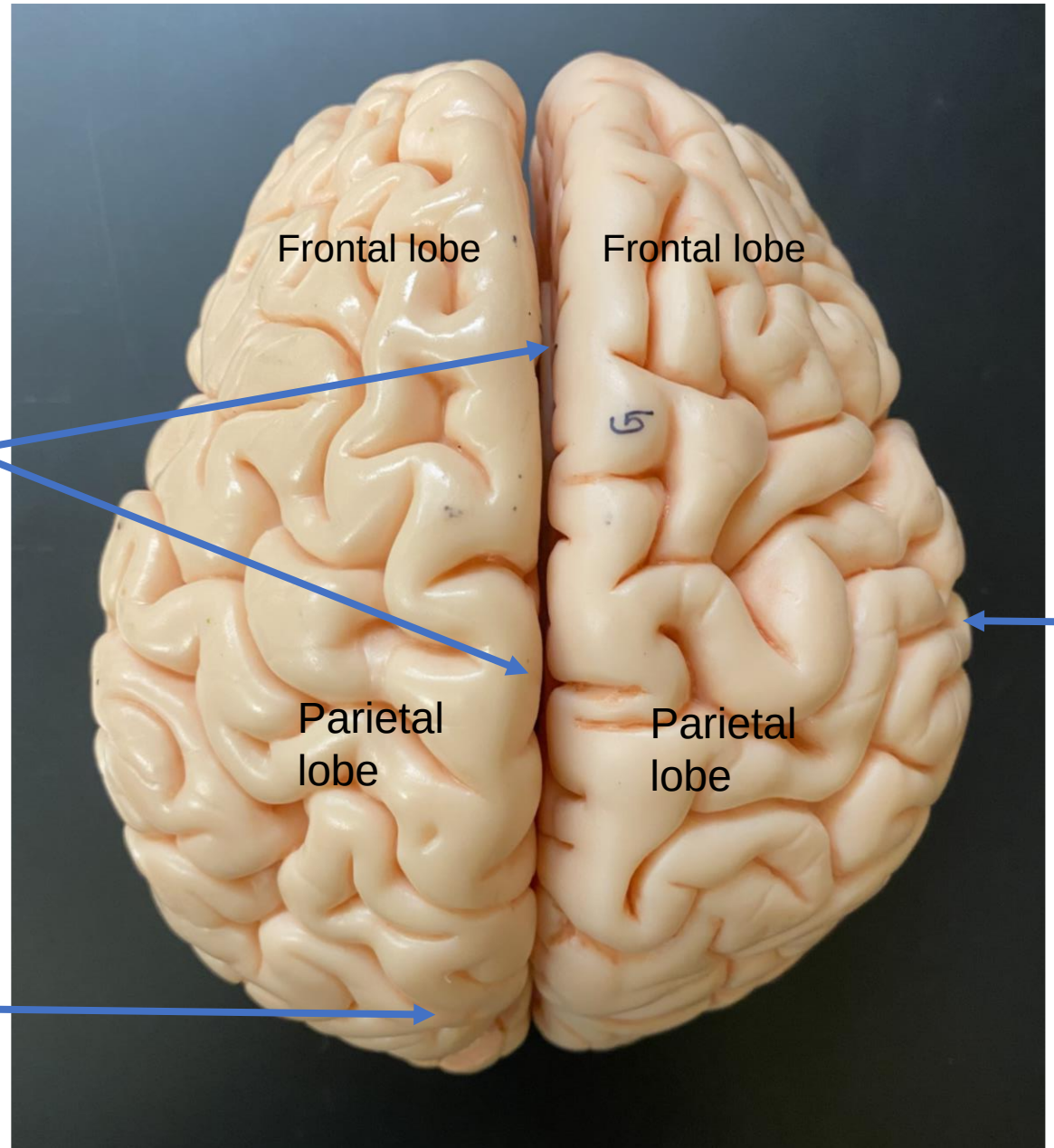
- Cerebrum
  - Occipital lobes
  - Frontal lobes
  - Postcentral gyrus
  - Temporal lobes
  - Central sulcus
  - Parietal lobes
  - Precentral gyrus
- Lateral sulcus
- Longitudinal fissure
- Optic chiasm
- Optic tract
- Olfactory bulbs
- Mammillary bodies
- Brain stem
  - Midbrain
    - Cerebral peduncles
  - Pons
  - Medulla oblongata
- Cerebellum

Lobes of the Cerebrum

See the figures of the cerebrum in the textbook showing the exact divisions of each lobe



Cerebrum Superior View

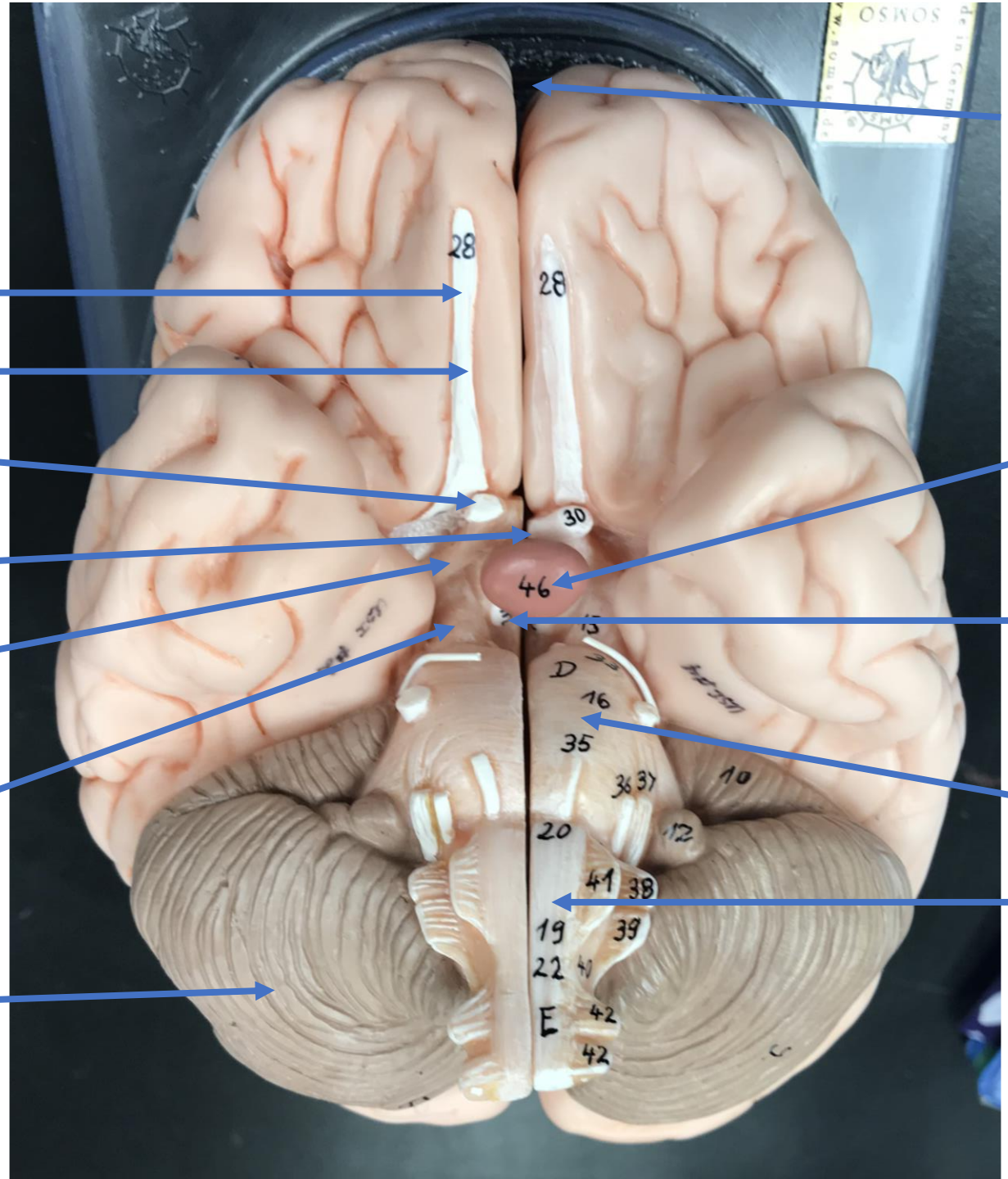


Longitudinal fissure- separating the left and right cerebral hemispheres

Temporal lobe

Occipital lobe

The Brain
Inferior View



Olfactory bulbs

Olfactory tract

Optic nerve II

Optic chiasm

Optic tract

Cerebral peduncles of midbrain

Cerebellum

Longitudinal fissure

Pituitary gland

Mammillary bodies (one is hidden behind pituitary gland)

Pons

Medulla oblongata

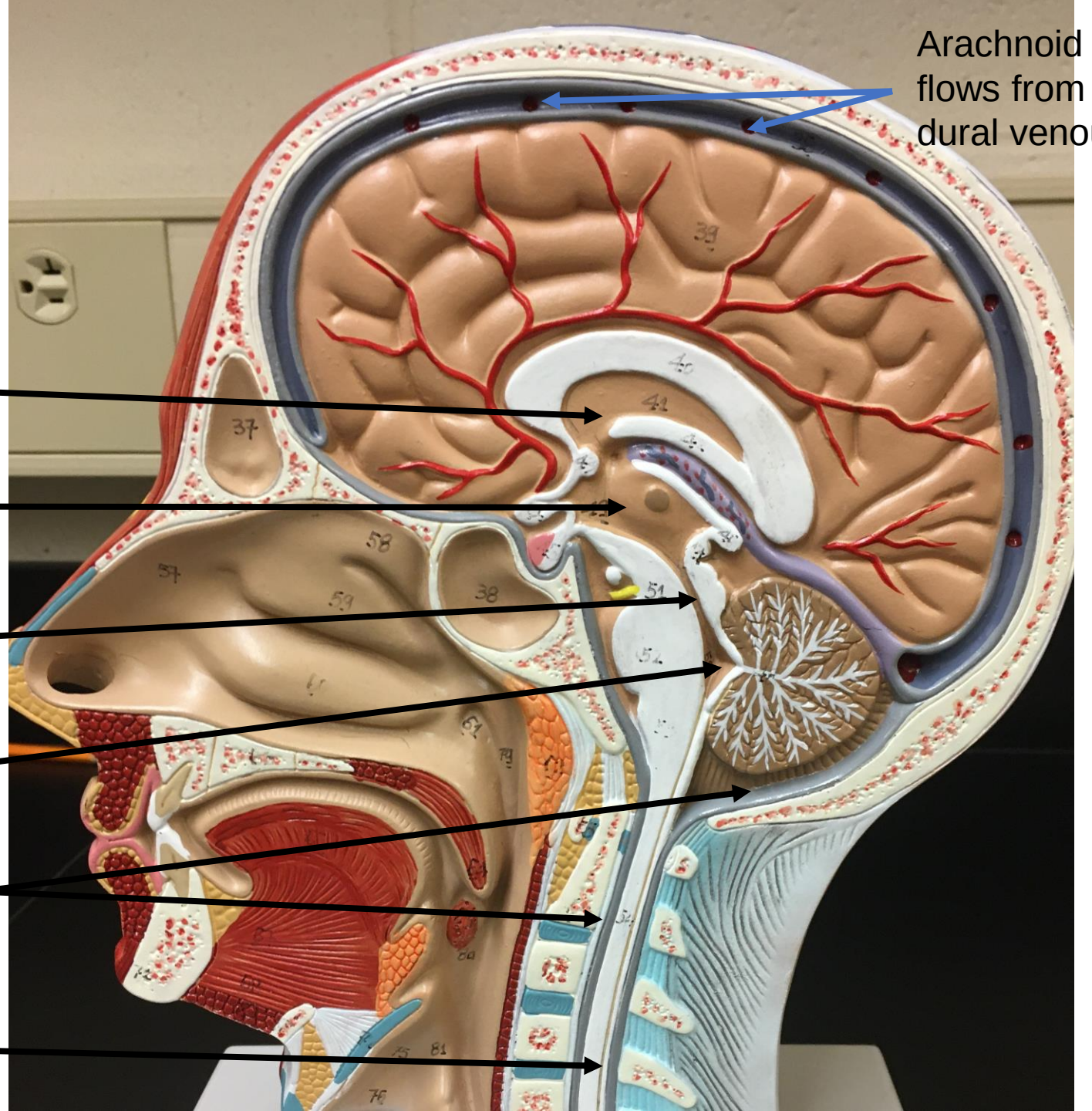
Ventricles of the Brain

- Lateral ventricles
- Third ventricle
- Fourth ventricle

- Cerebral aqueduct

- Surrounds choroid plexus
  - Lateral ventricles
- Surrounds thalamus
  - Third ventricle
- Juts into cerebellum
  - Fourth ventricle
- Connects third and fourth ventricle
  - Cerebral aqueduct

Ventricles of the Brain



Arachnoid villi- CSF fluid flows from ventricles into the dural venous sinus

Lateral ventricles

Area of the third ventricle

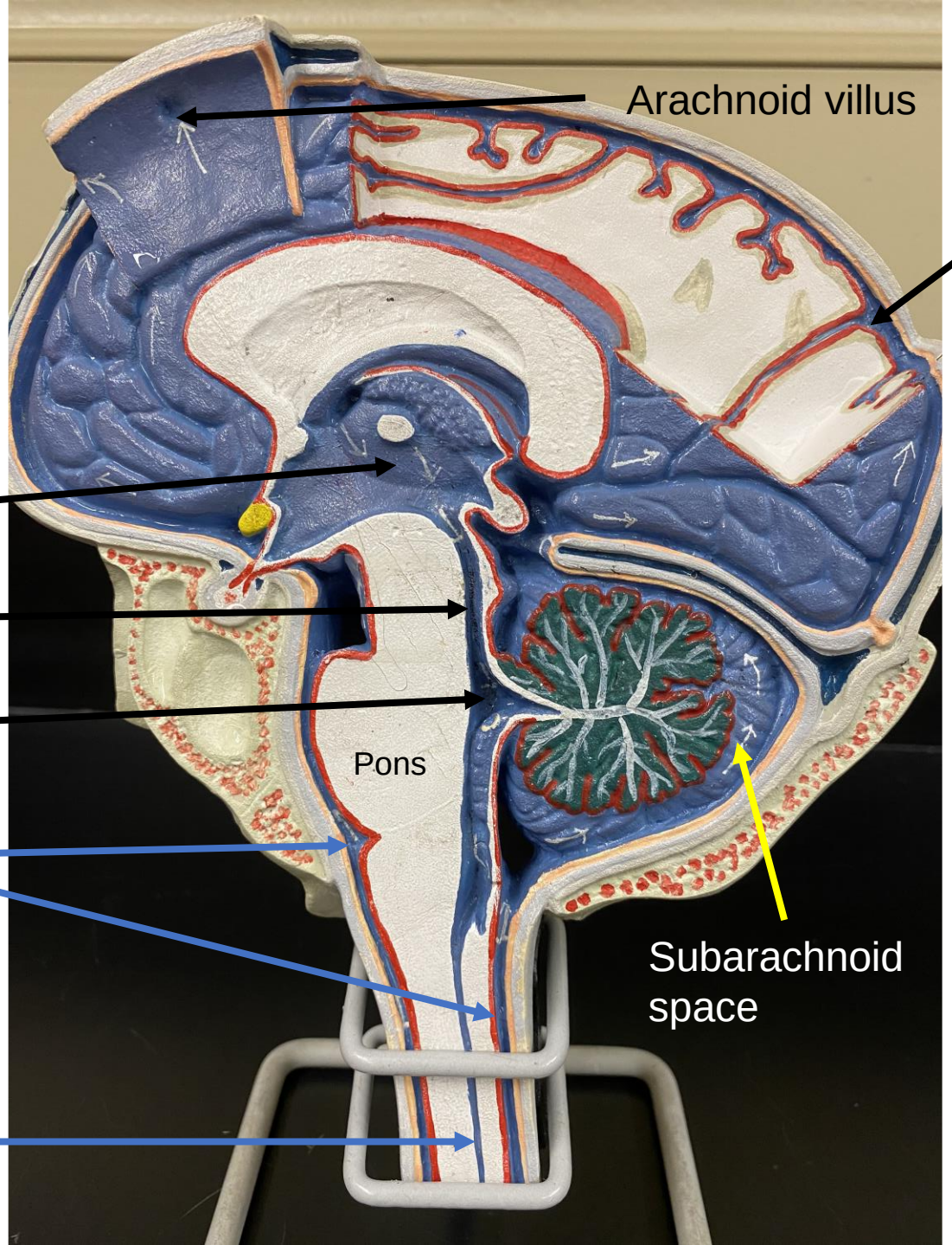
Cerebral aqueduct

Fourth ventricle

Subarachnoid space

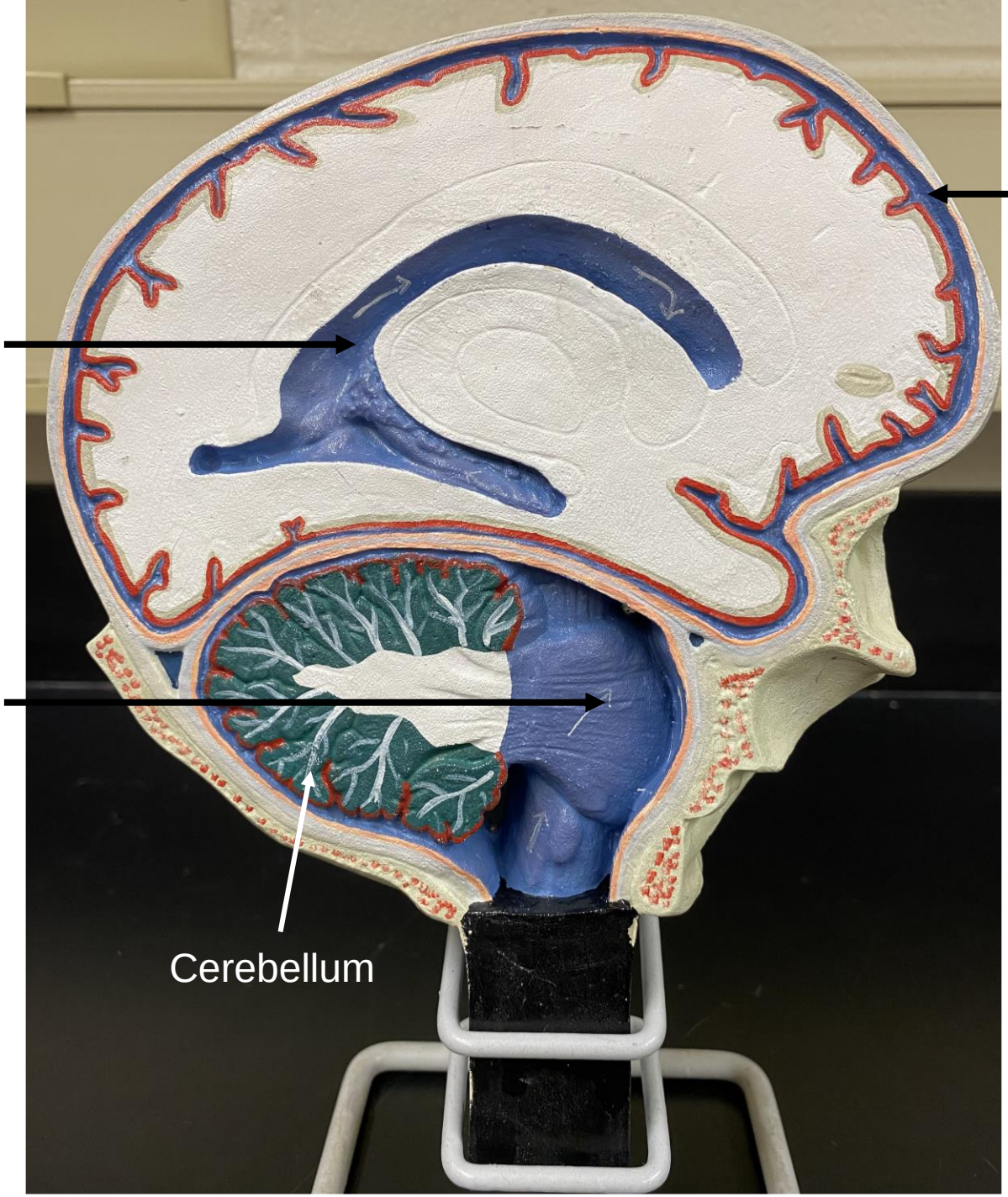
Spinal canal

Ventricles of the Brain Know CSF Circulation

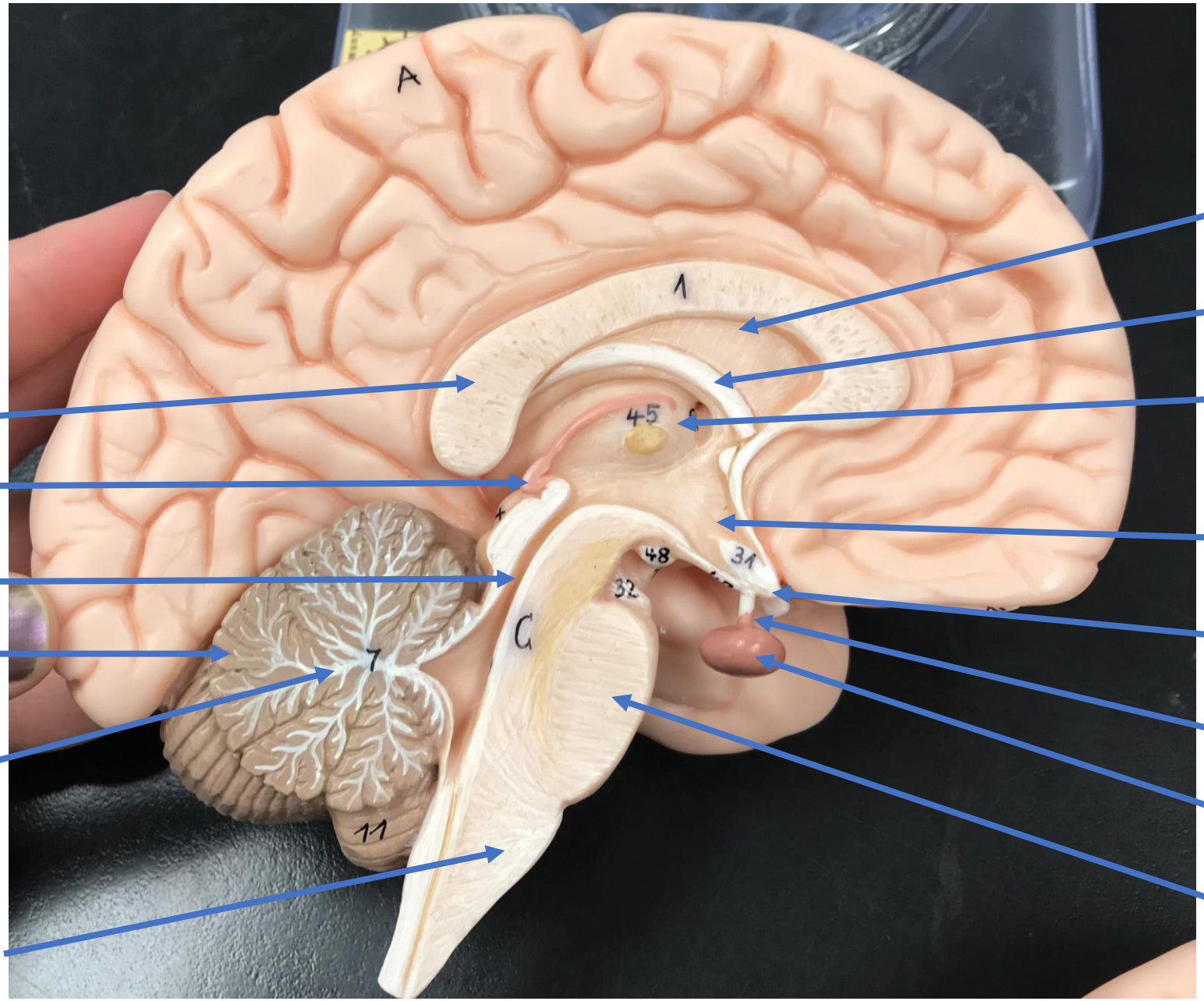


CSF fluid circulates in the blue colored areas:
Lateral ventricles to interventricular foramen into the Third ventricle then through the Cerebral aqueduct into the Fourth ventricle then flows through the lateral and median apertures to the Subarachnoid space

Ventricles of the Brain



Internal Structures of the Brain and Ventricles



Corpus callosum

Pineal gland

Cerebral aqueduct

Cerebellum

Arbor Vitae of Cerebellum (white matter)

Medulla oblongata

Septum pellucidum

Fornix

Thalamus

Hypothalamus

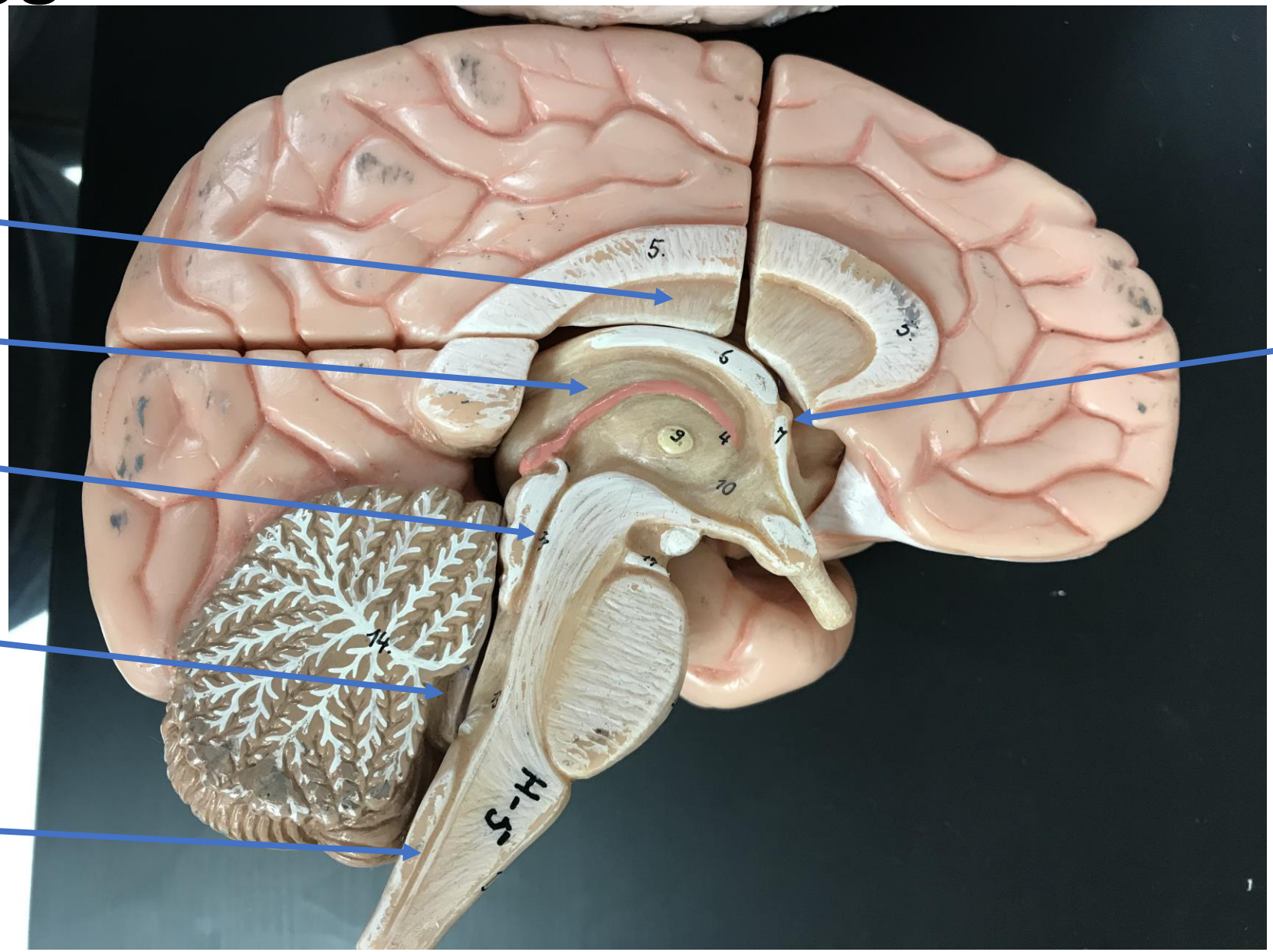
Optic chiasm

Infundibulum

Pituitary gland

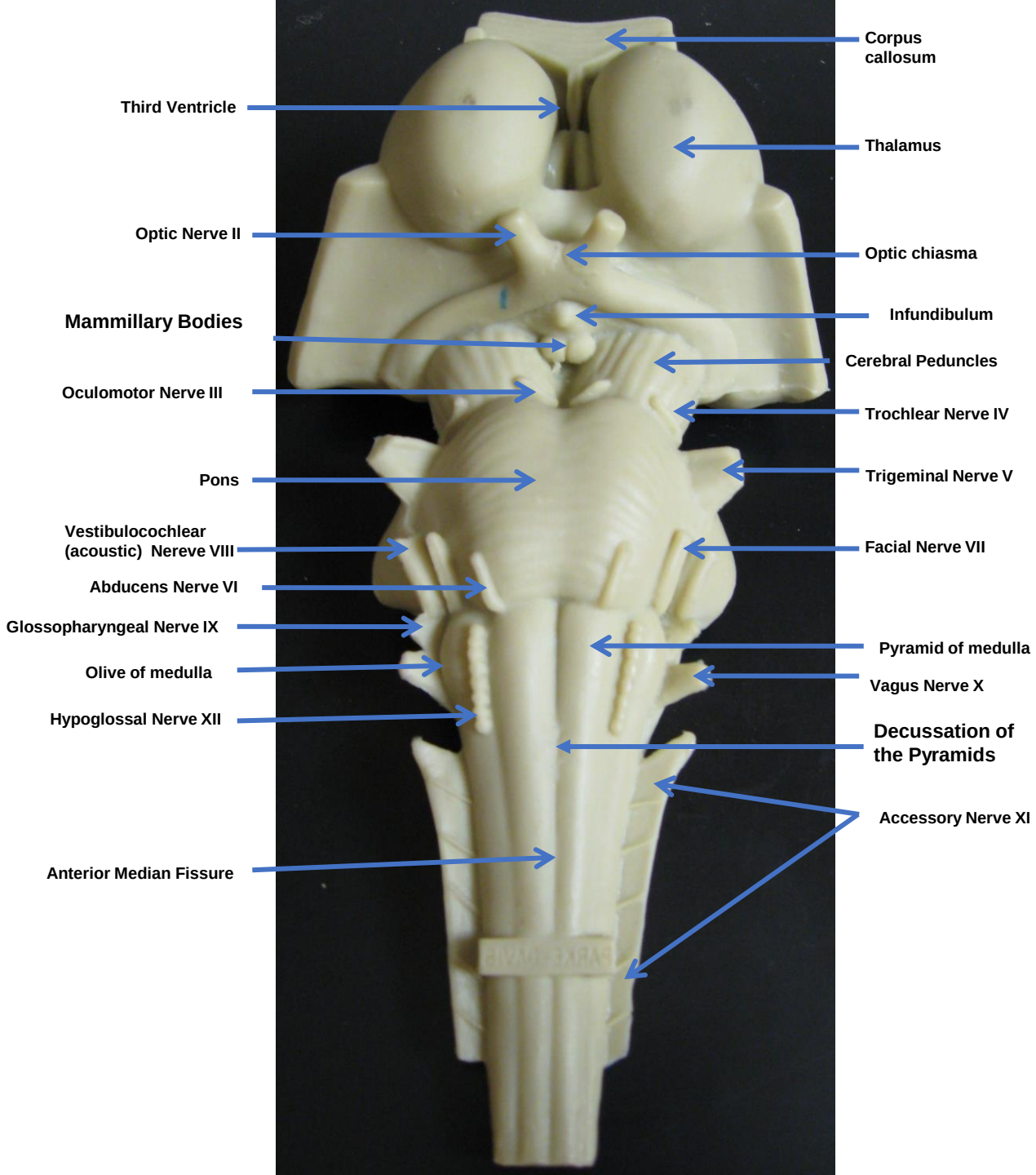
Pons

Ventricles

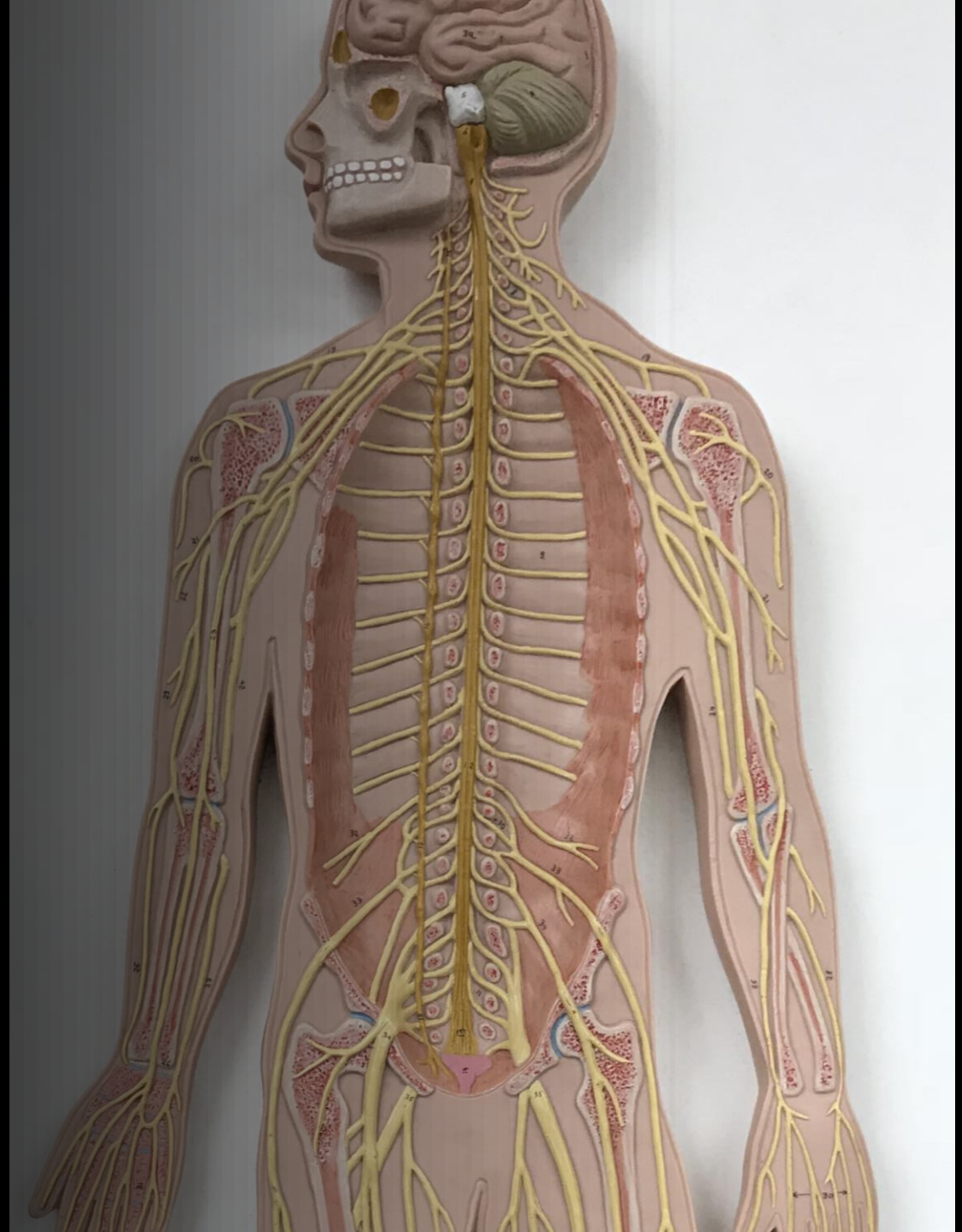

Lateral ventricle
Third ventricle
Cerebral aqueduct
Fourth ventricle
Central canal
Interventricular foramen (be able to identify this formamen)
5.
3.
6
9
4
7
10
14.

Cranial nerves

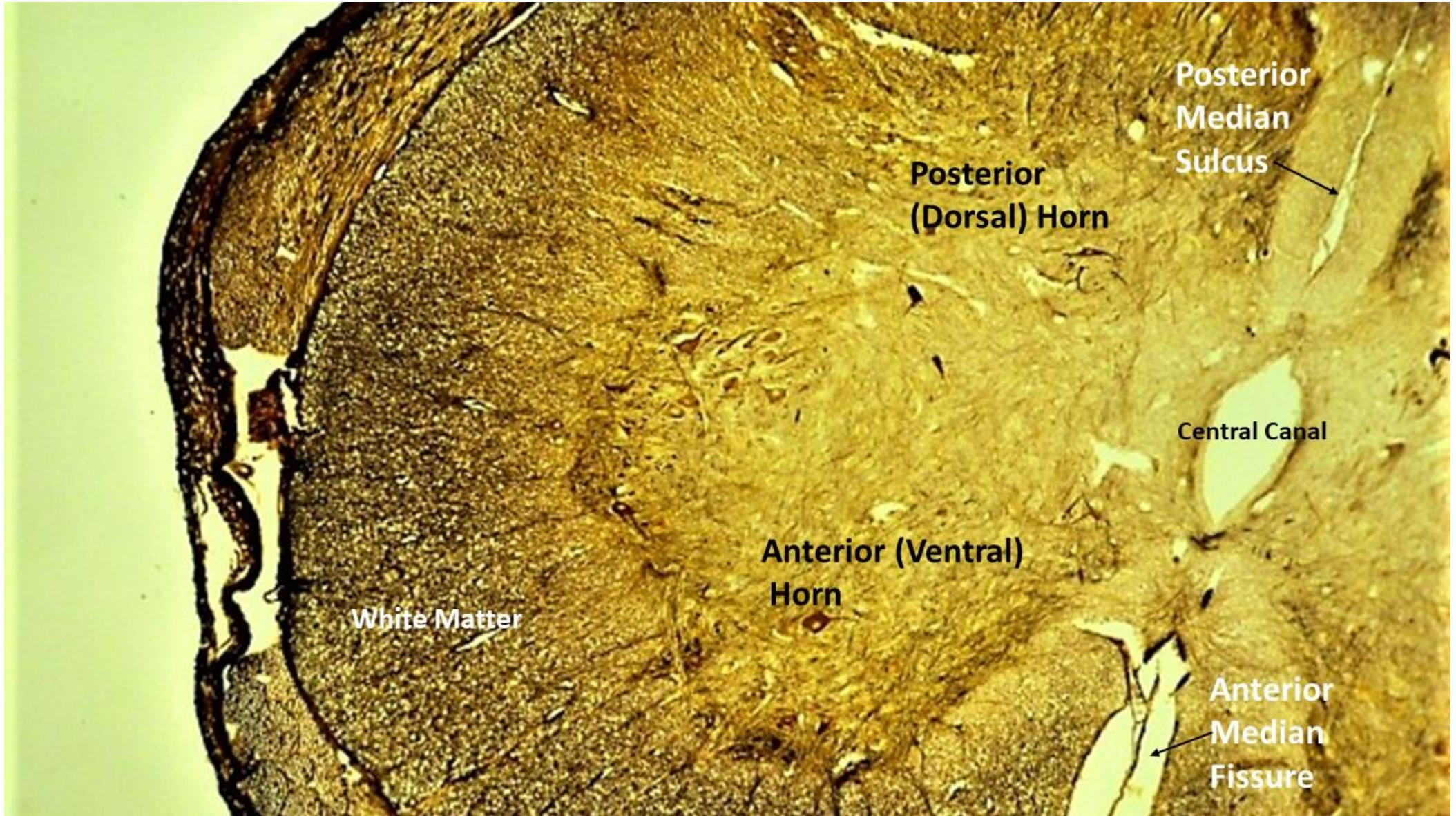
Cranial Nerves



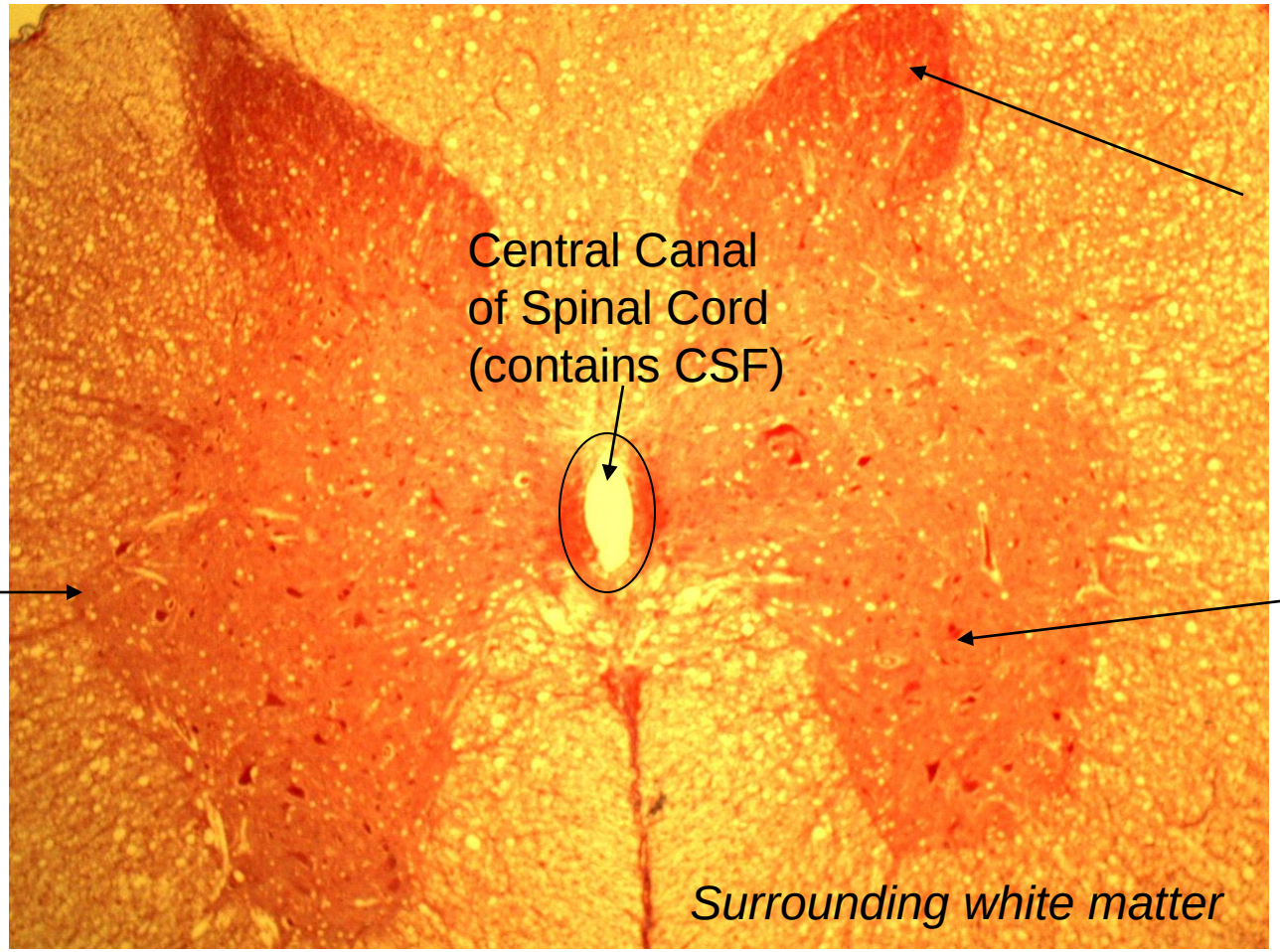
Spinal Cord and Spinal Nerves



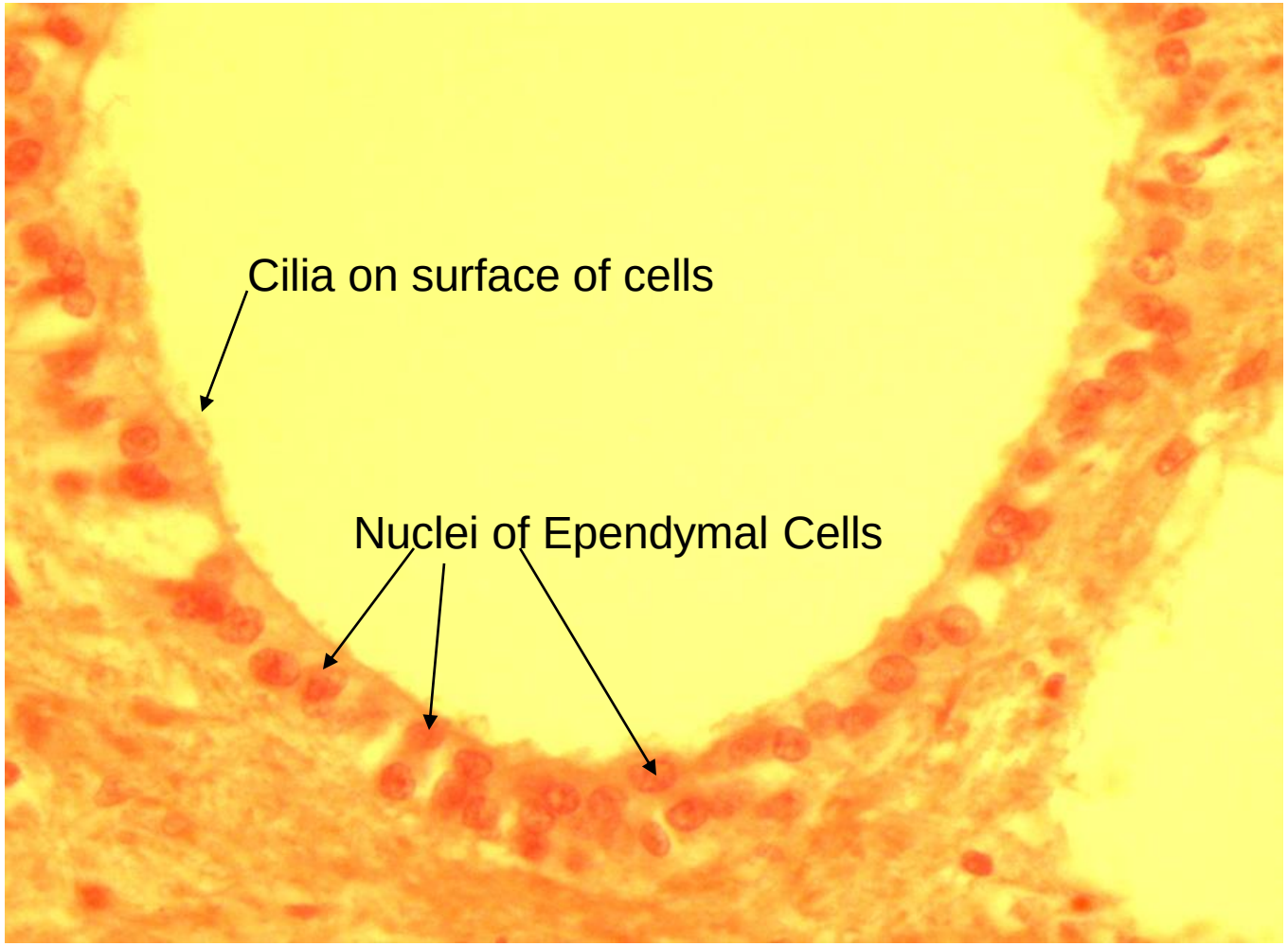
Cross Section of Spinal Cord



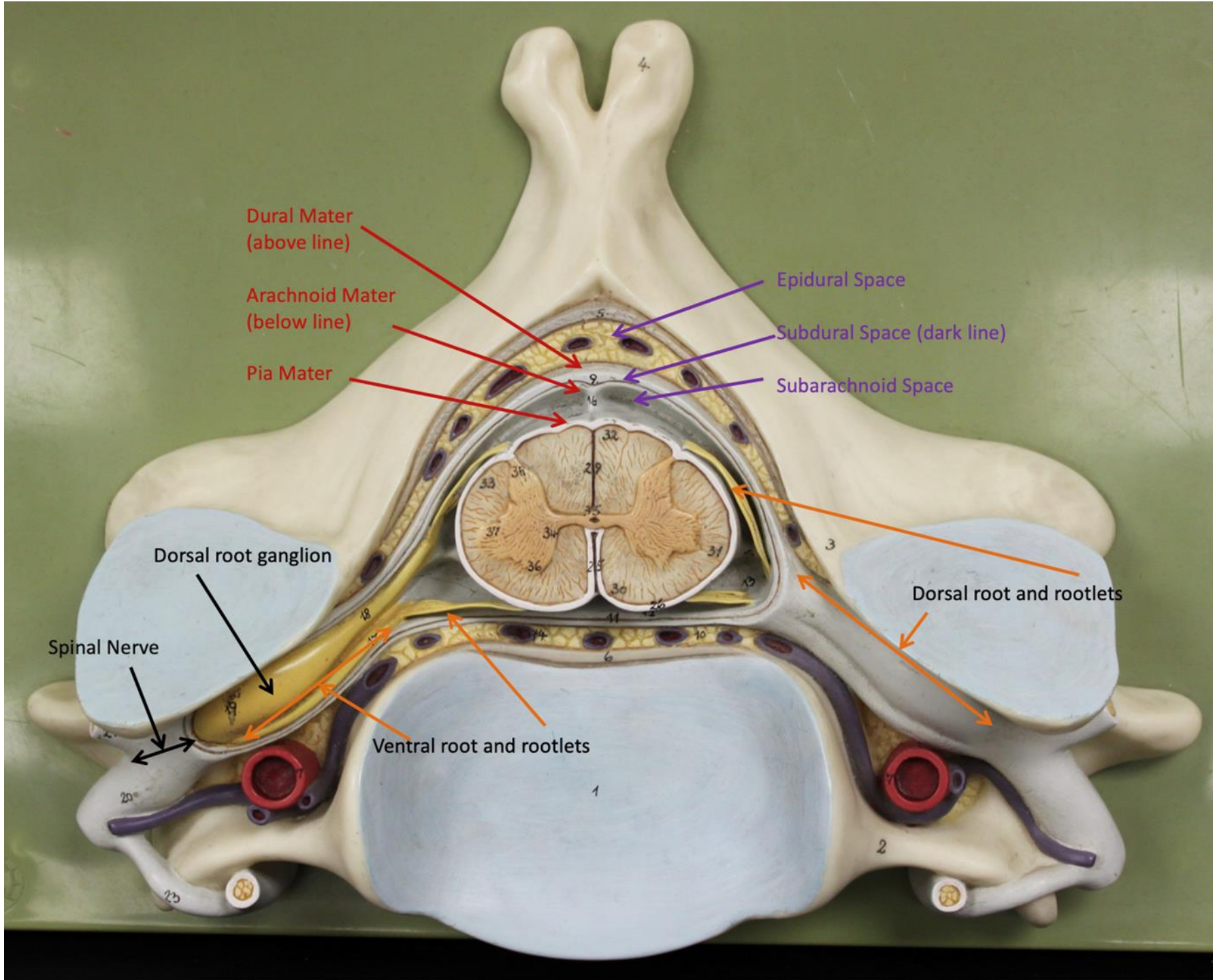
Cross Section of Spinal Cord



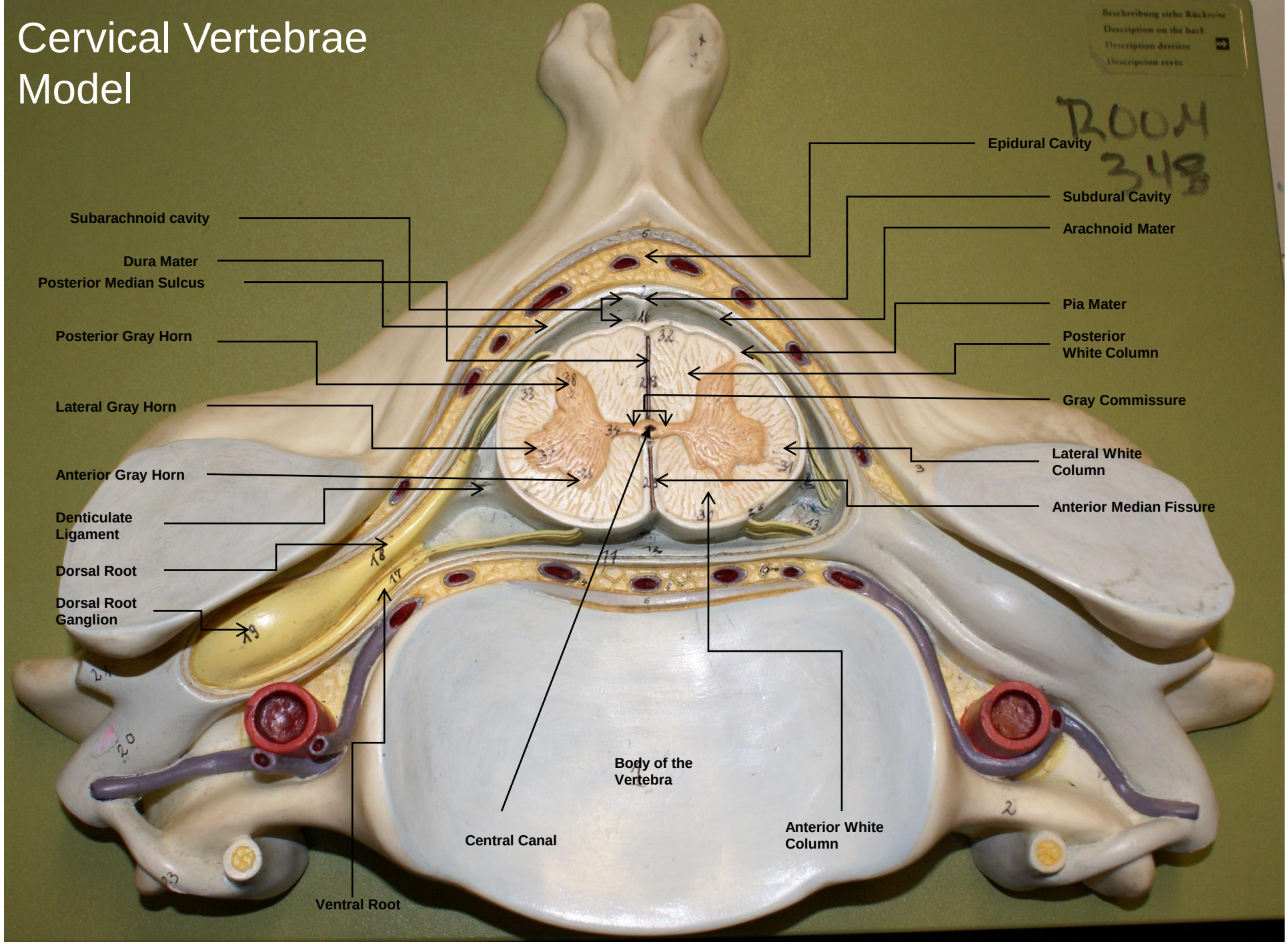
Central Canal High Magnification



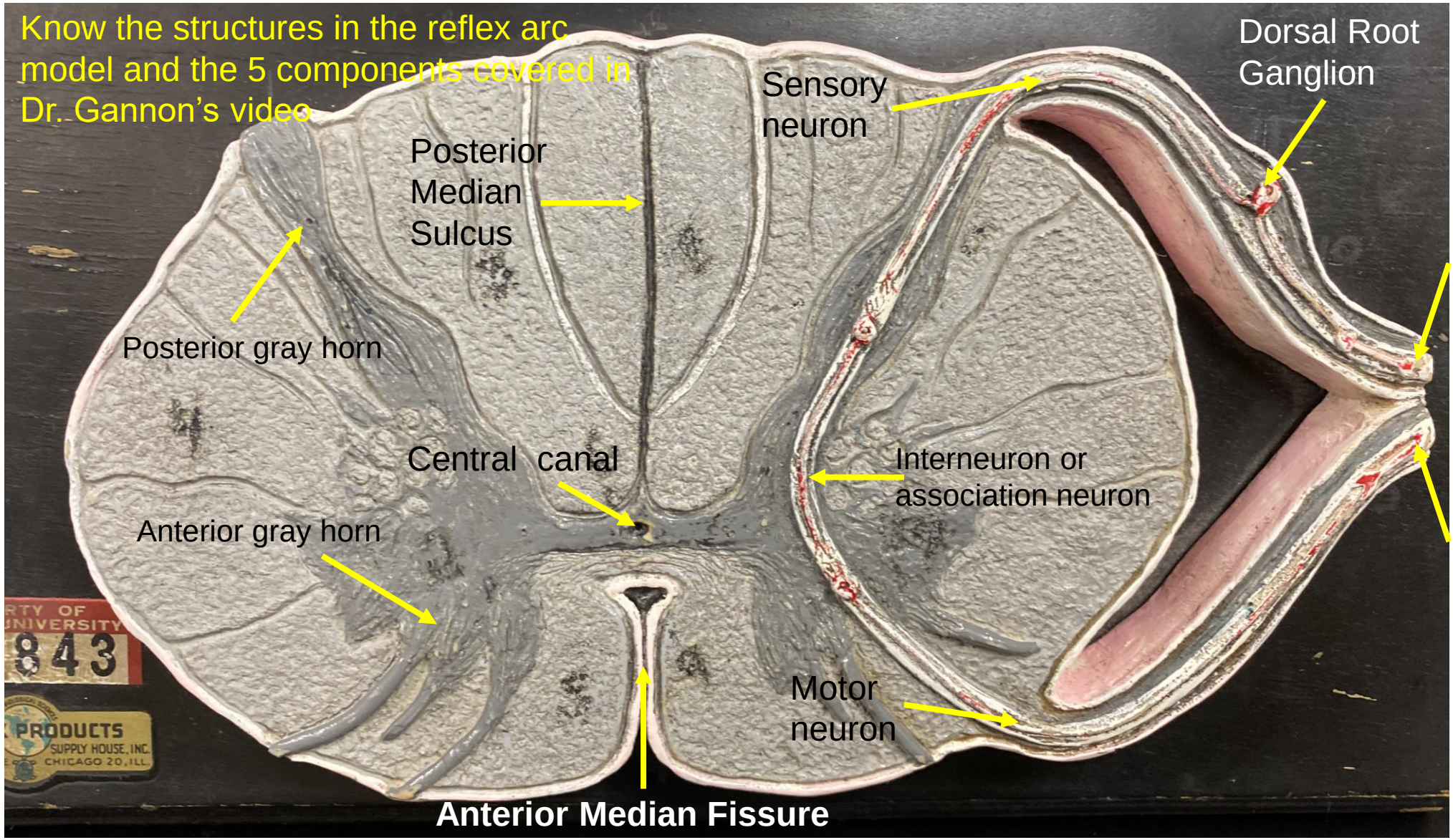
Overview of the Cervical Vertebrae Model



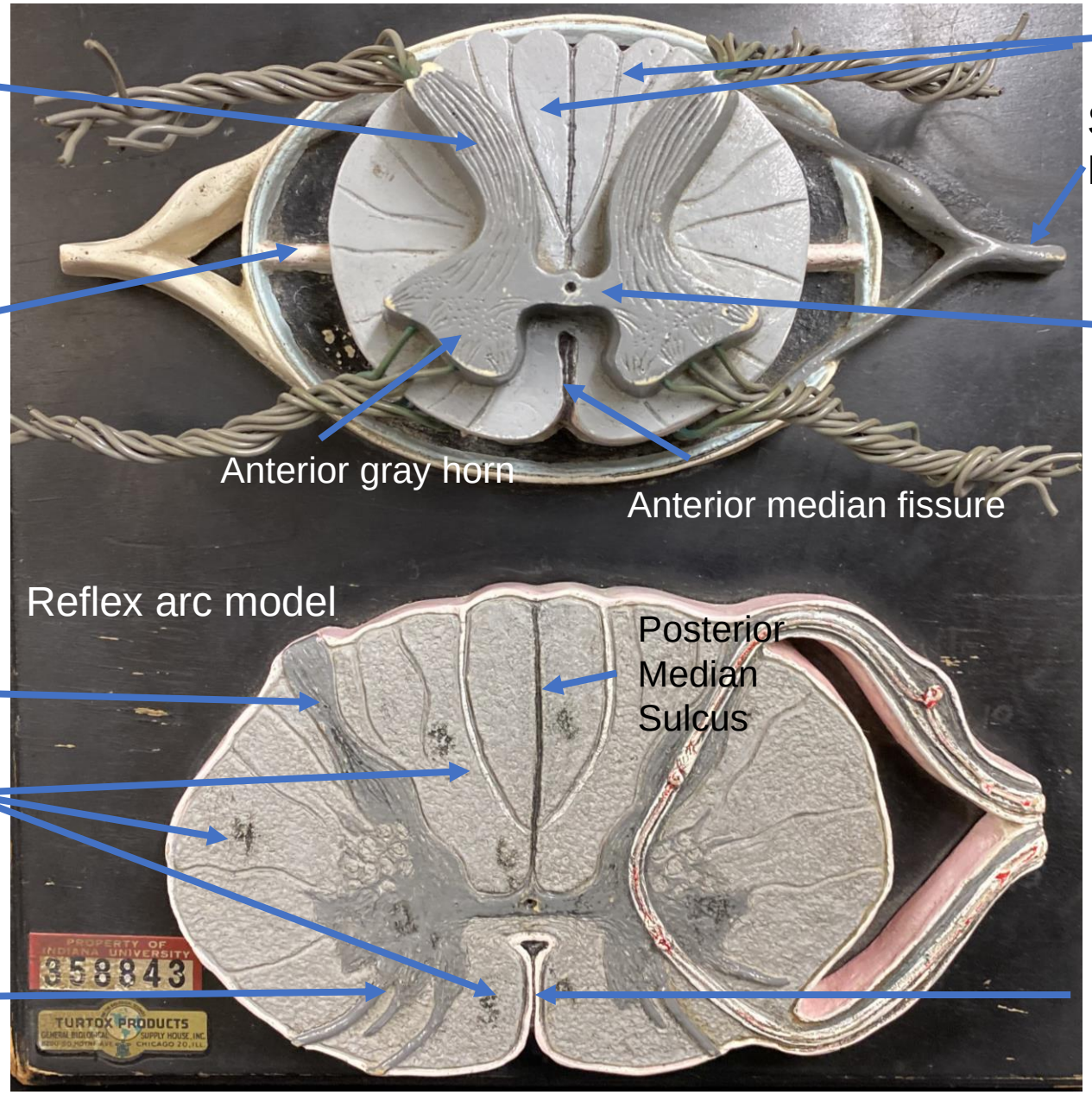
Cervical Vertebrae Model



Spinal Cord Cross Section- Reflex Arc



Spinal Cord Cross Section- Reflex Arc



Posterior gray horn

Denticulate ligament

Anterior gray horn

White posterior columns

Spinal Nerve

Gray Commissure

Anterior median fissure

Posterior gray horn

White columns

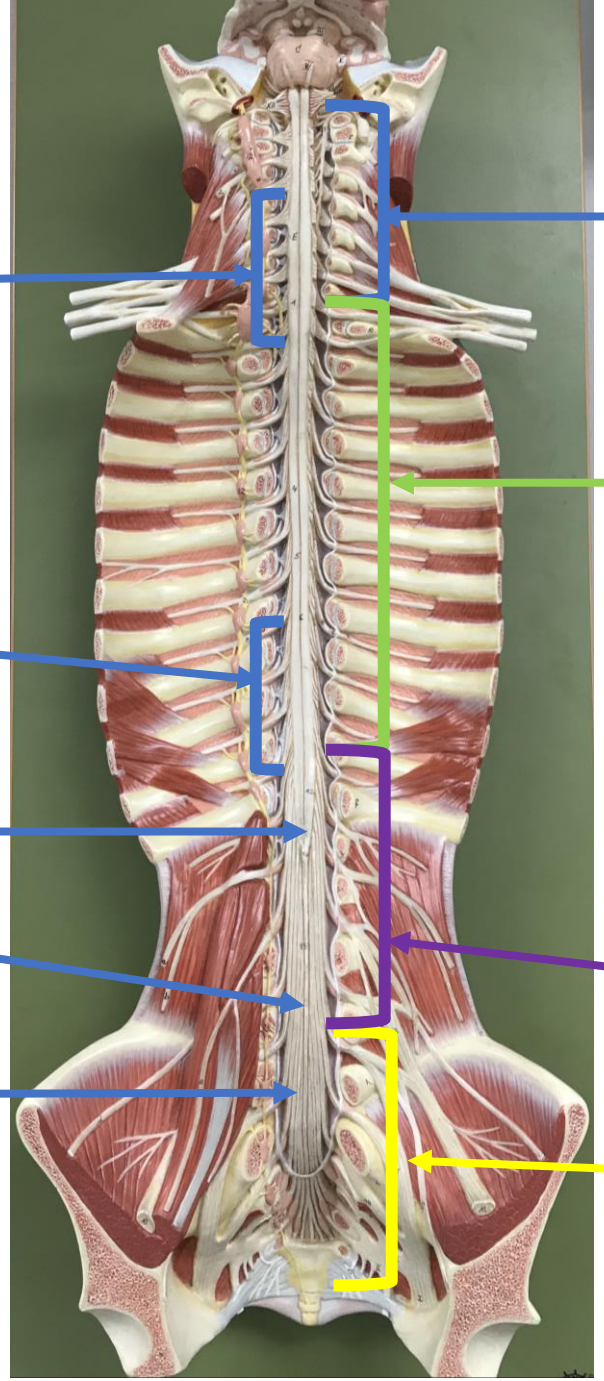
Anterior gray horn

Posterior Median Sulcus

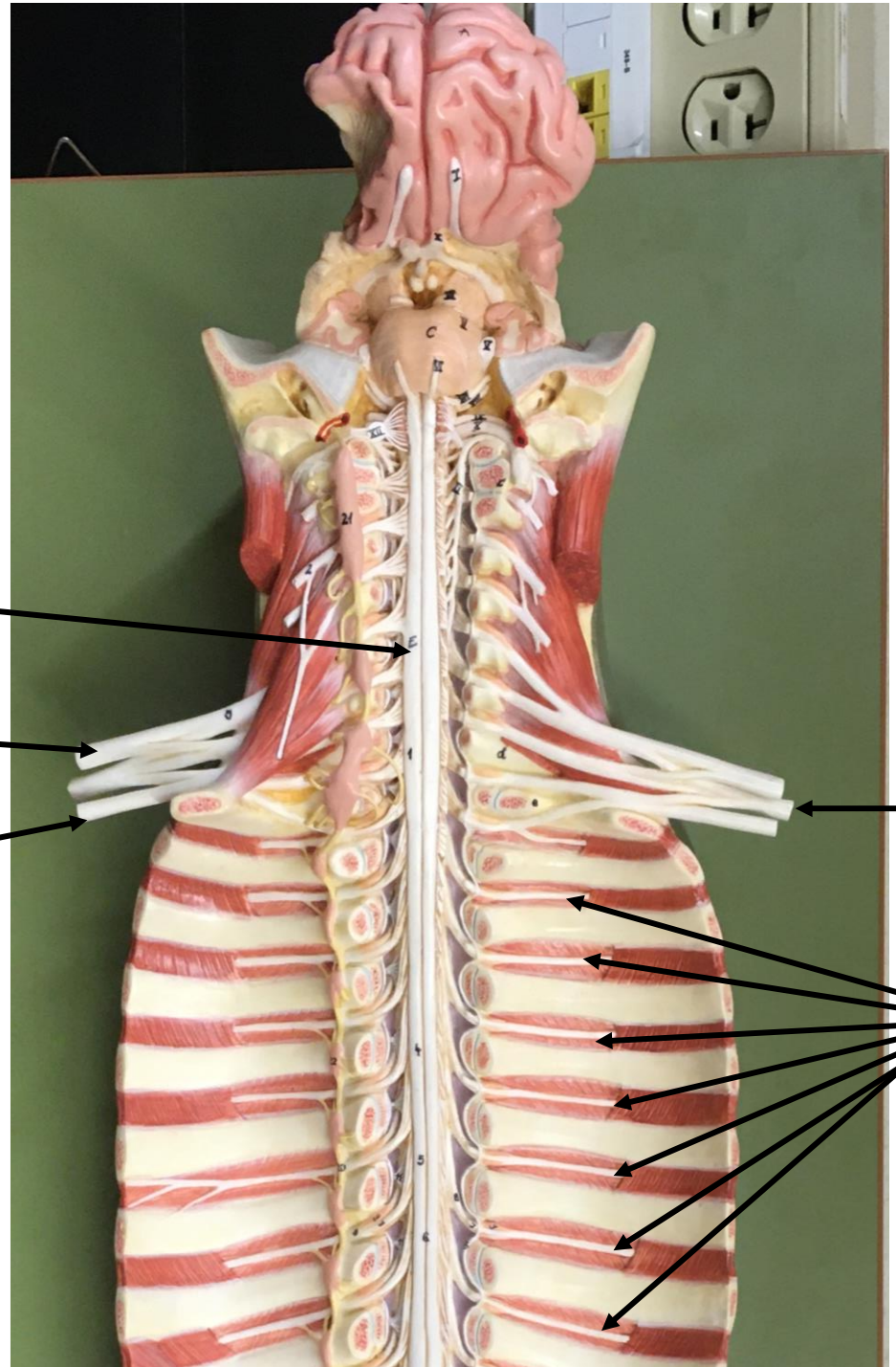
Anterior median fissure

Anatomical Areas of the Spinal Cord

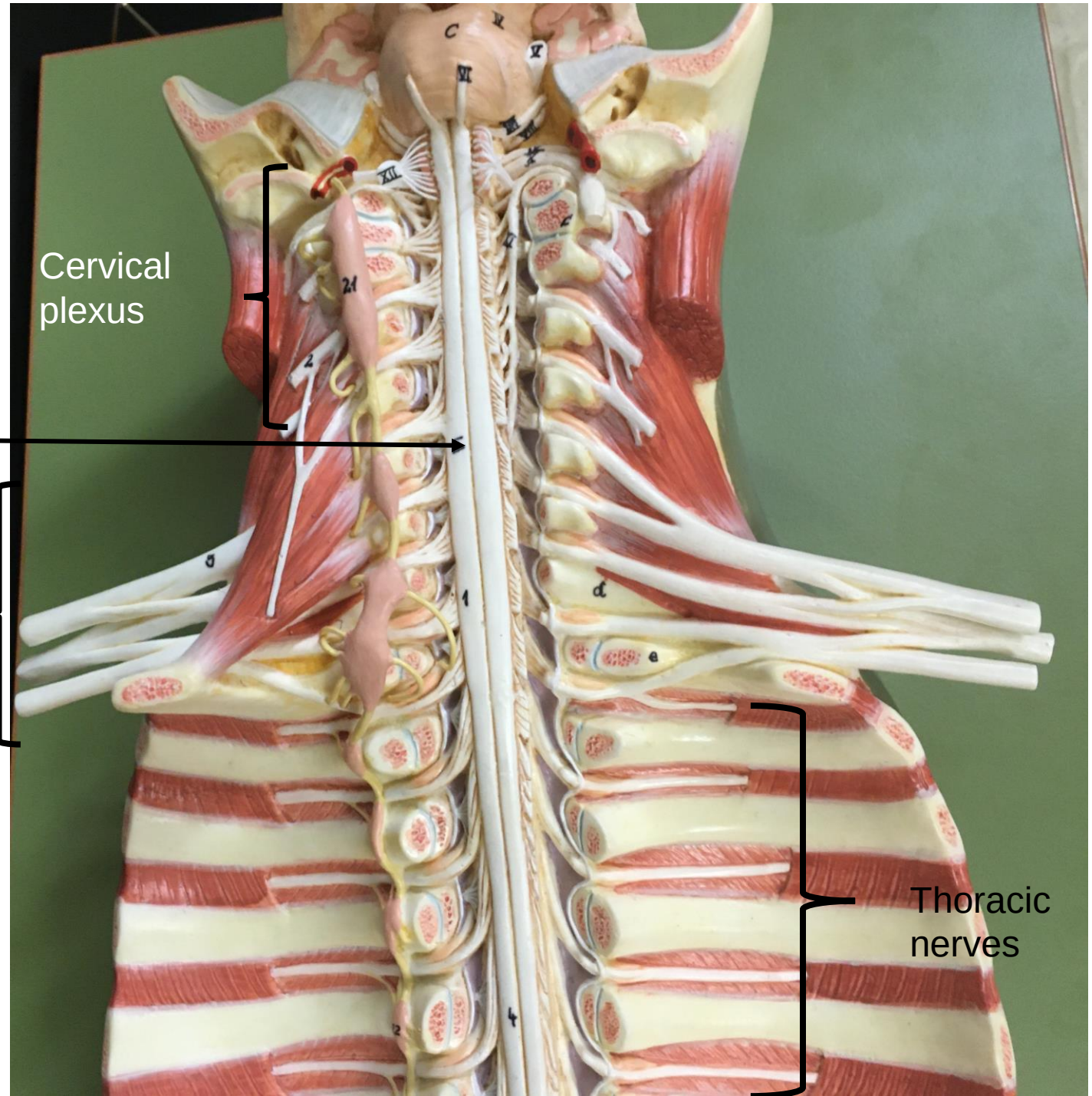
Use Dr. Gannon's instructional videos to identify spinal nerves and structures of the large spinal cord model viewed on the next slides



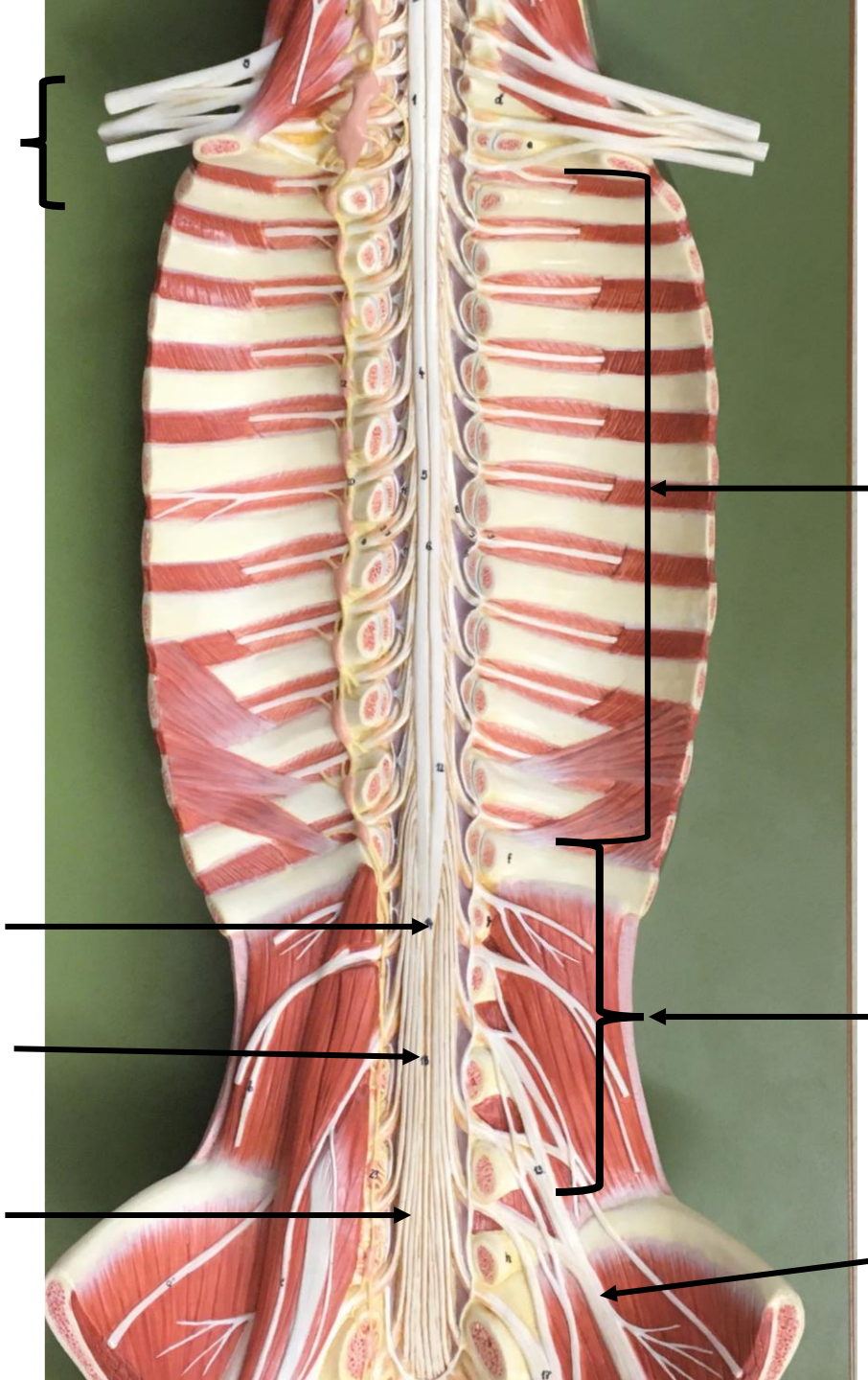
Anatomical Areas of the Spinal Cord



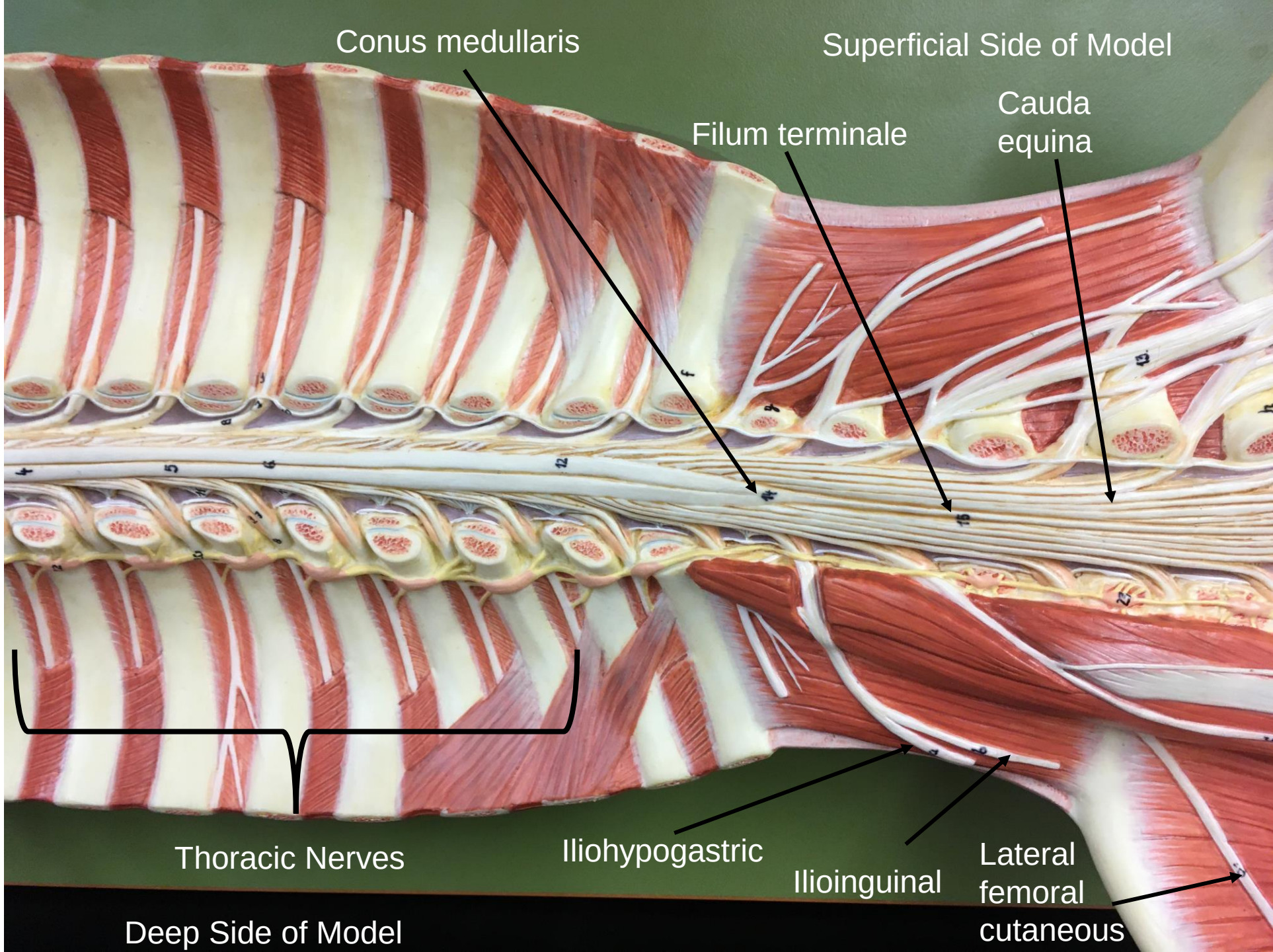
Anatomical Areas of the Spinal Cord Spinal Nerves



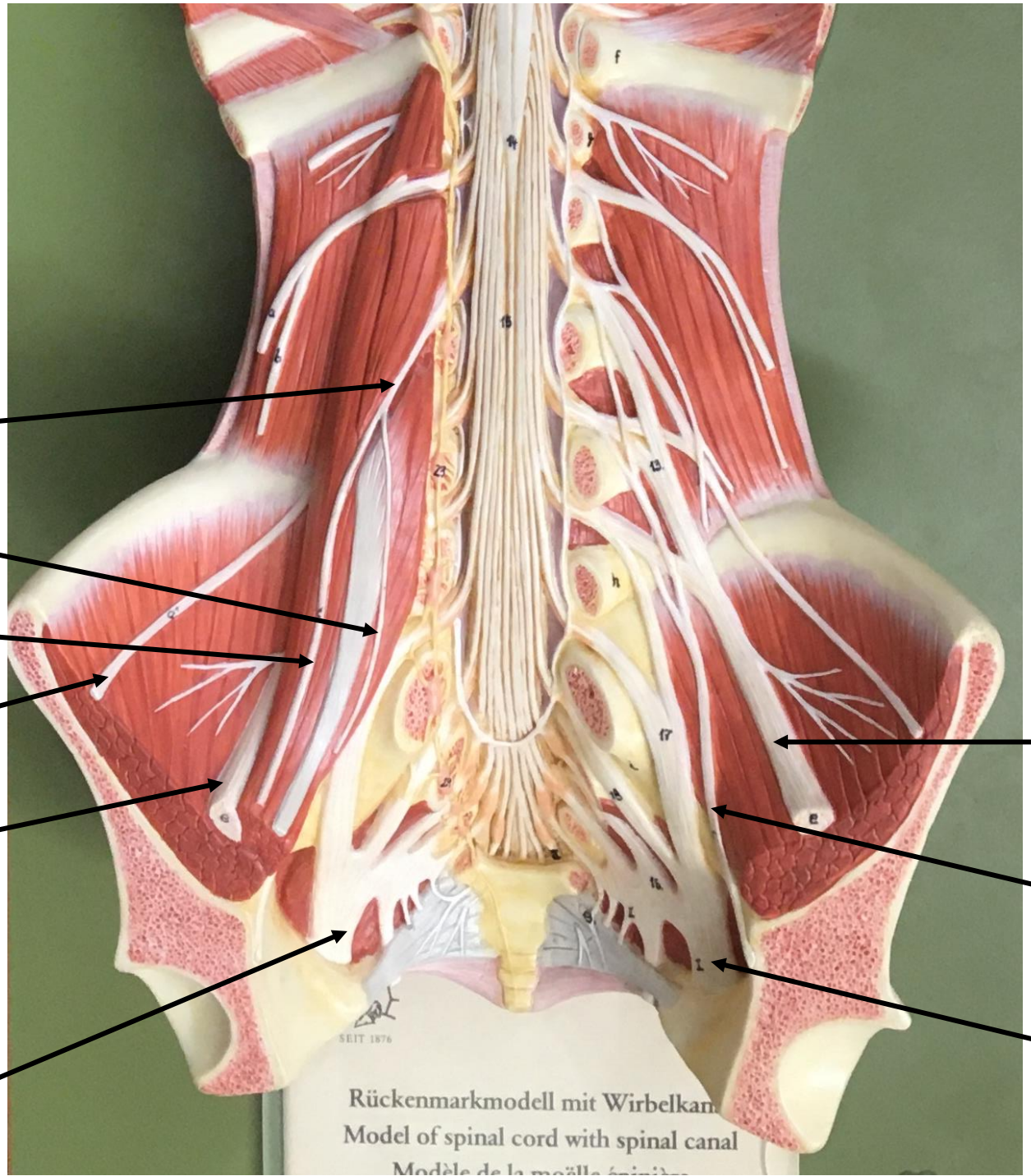
Anatomical Areas of the Spinal Cord



Spinal Cord Anatomical Structures
Spinal Nerves



Spinal Nerves
Hip Region



Deep Side of Model

Superficial Side of Model

Genitofemoral nerve

Genital branch of Genitofemoral nerve

Femoral branch of Genitofemoral nerve

Lateral femoral cutaneous nerve

Femoral nerve

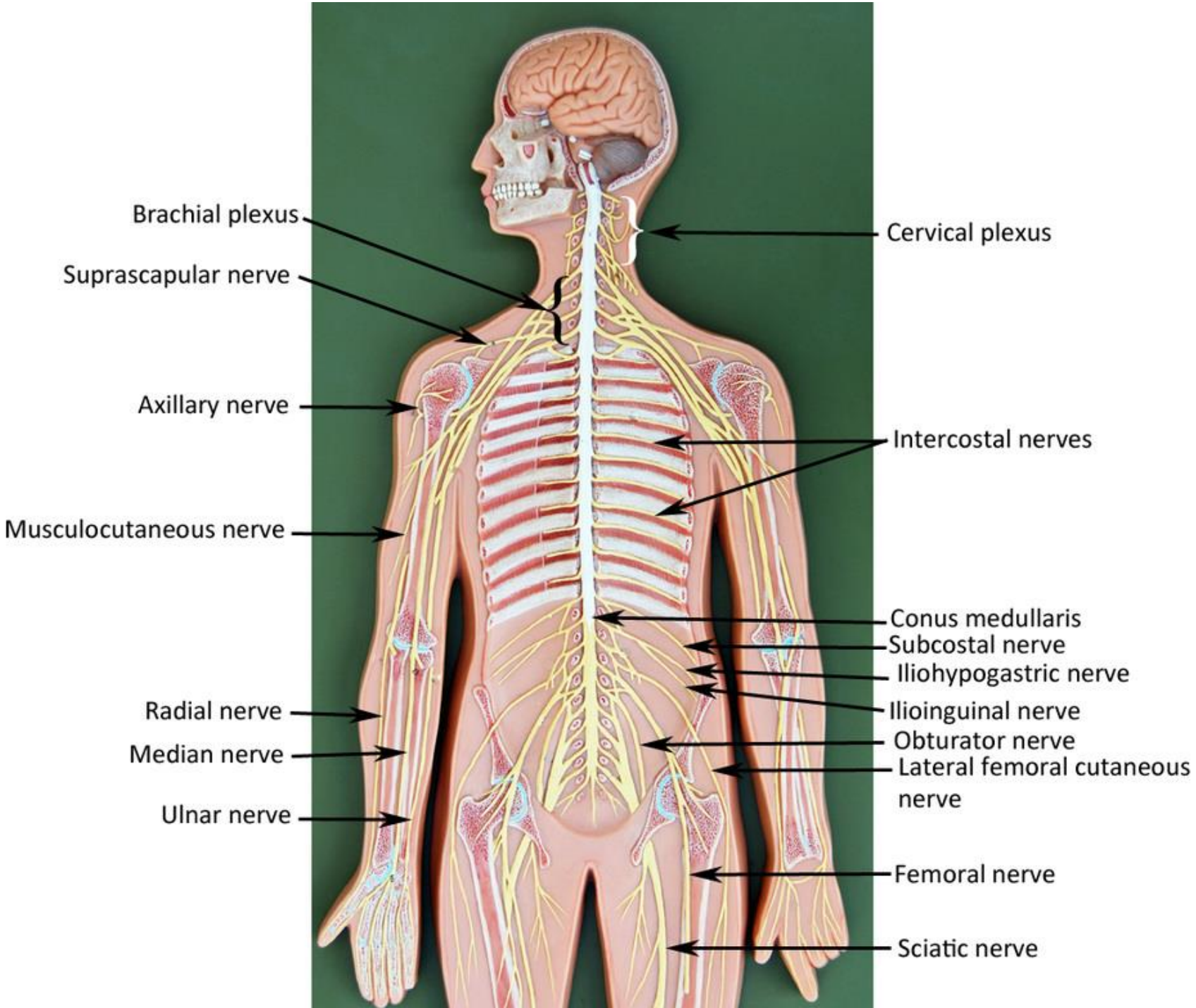
Sciatic nerve

Femoral nerve

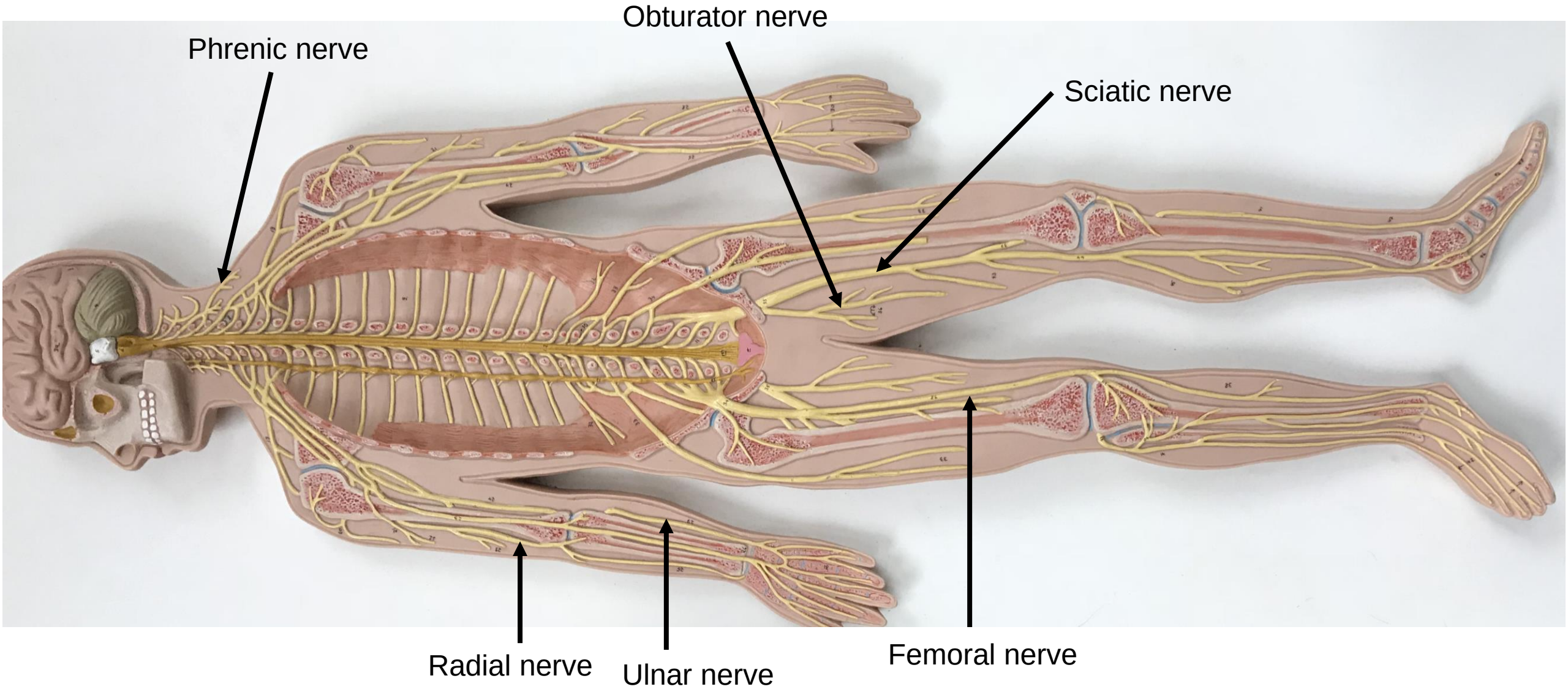
Obturator nerve

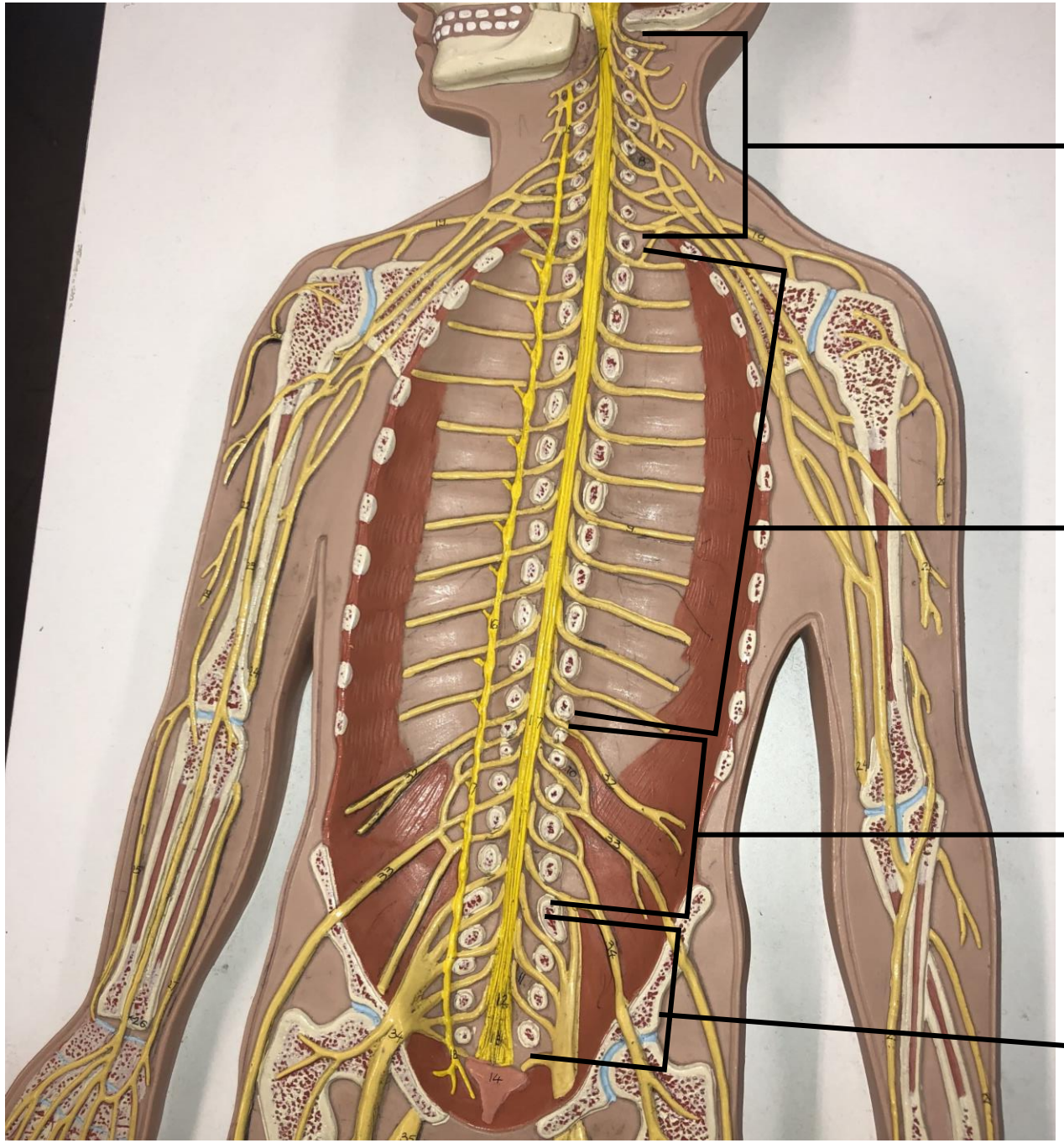
Sciatic nerve

Identify the following spinal nerves for the lab practical



Spinal Nerves





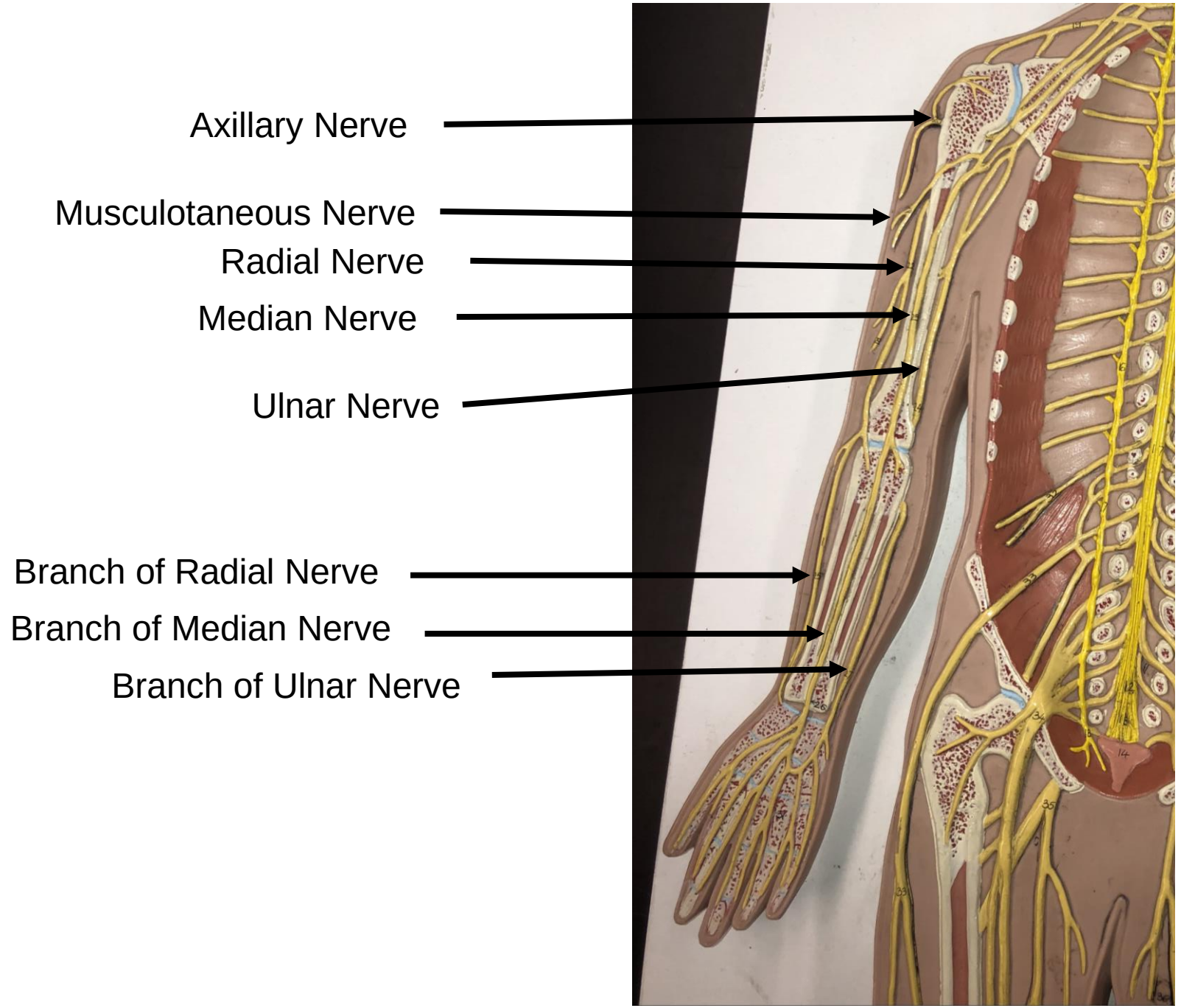
Cervical nerves C1-C8

Thoracic nerves T1-T12

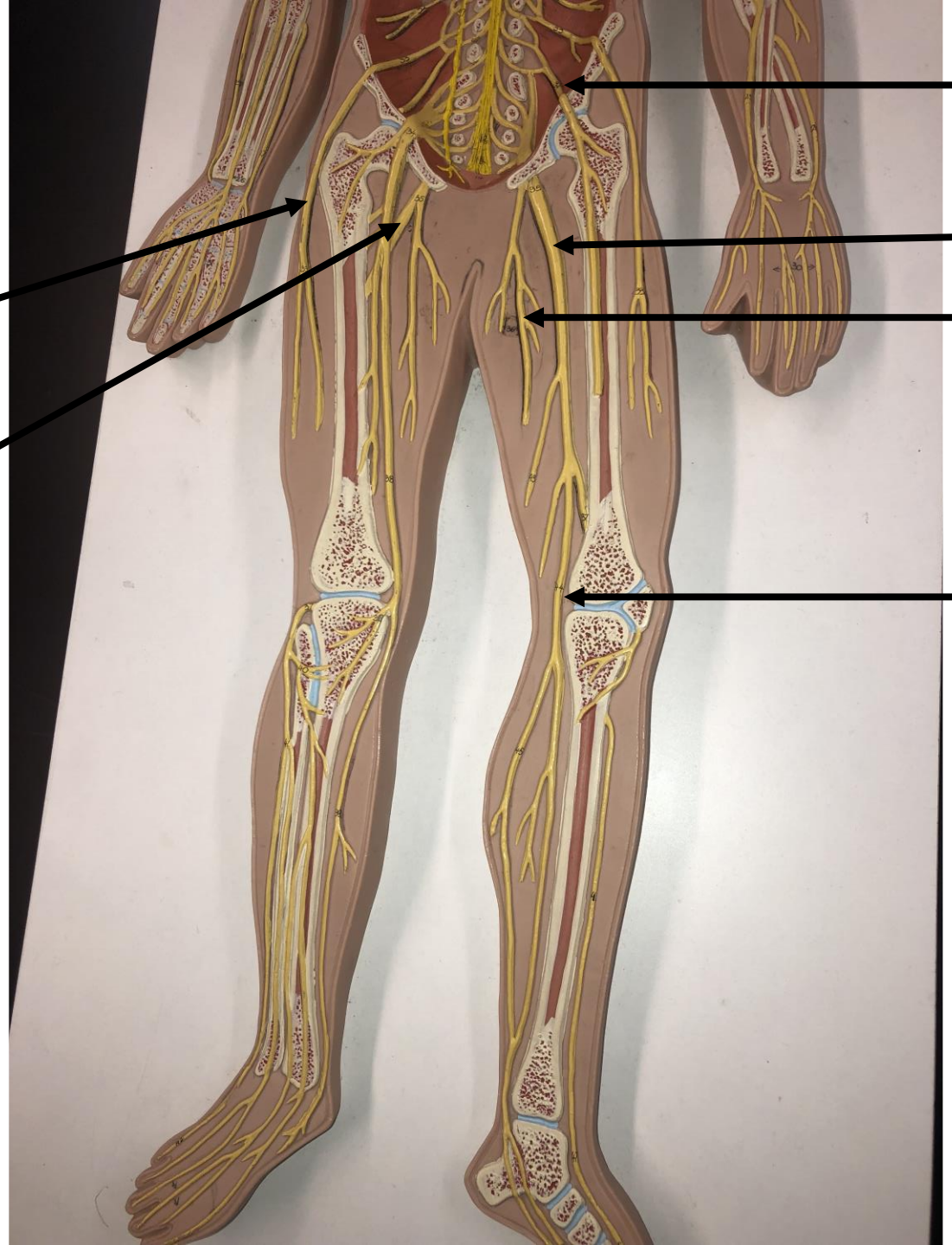
Lumbar nerves L1-L5

Sacral nerves S1-S3

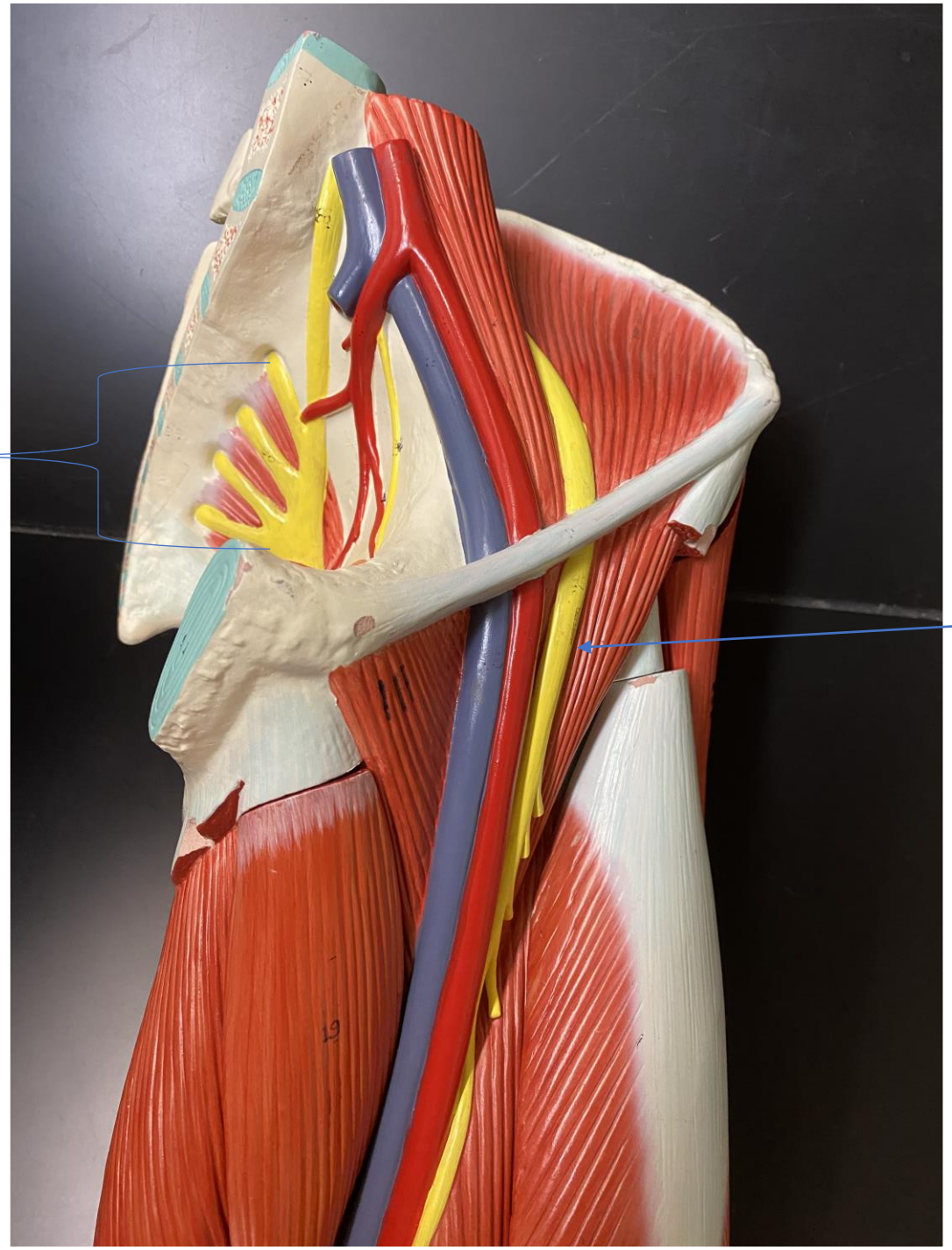
Spinal Nerves Arm



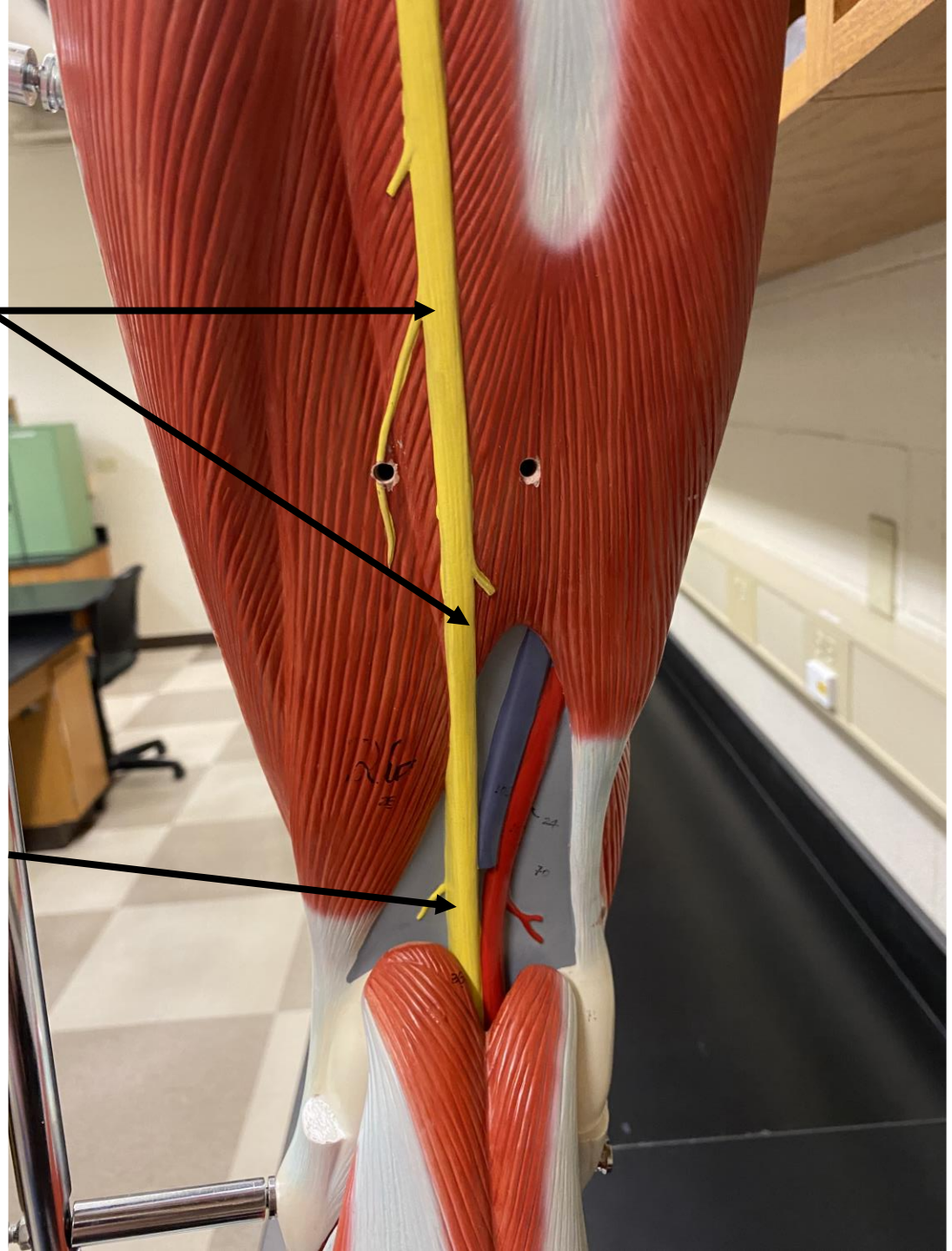
Spinal Nerves
Hip and Legs



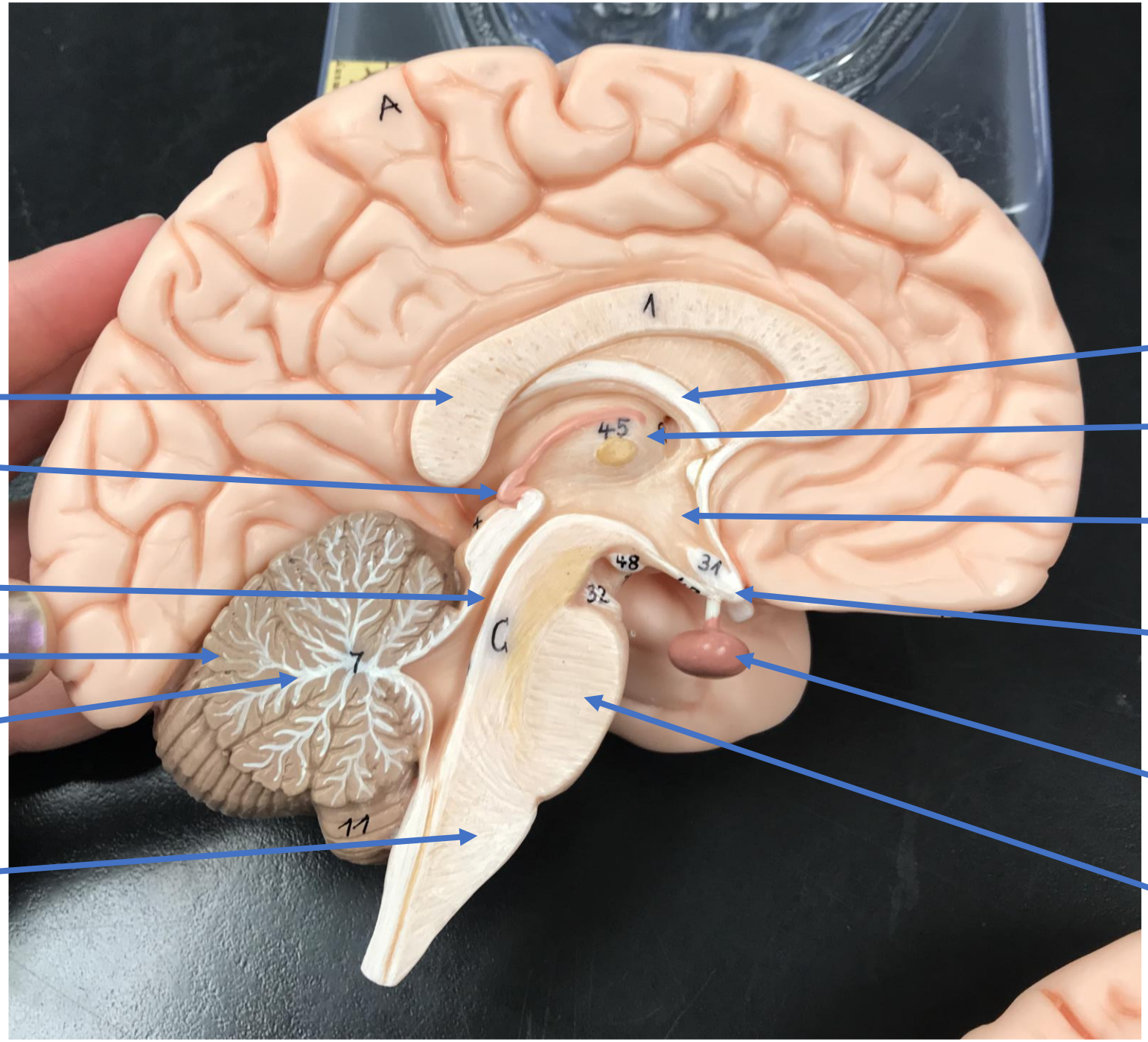
Spinal Nerves-
Leg Model
Sciatic Nerve
Obturator Nerve



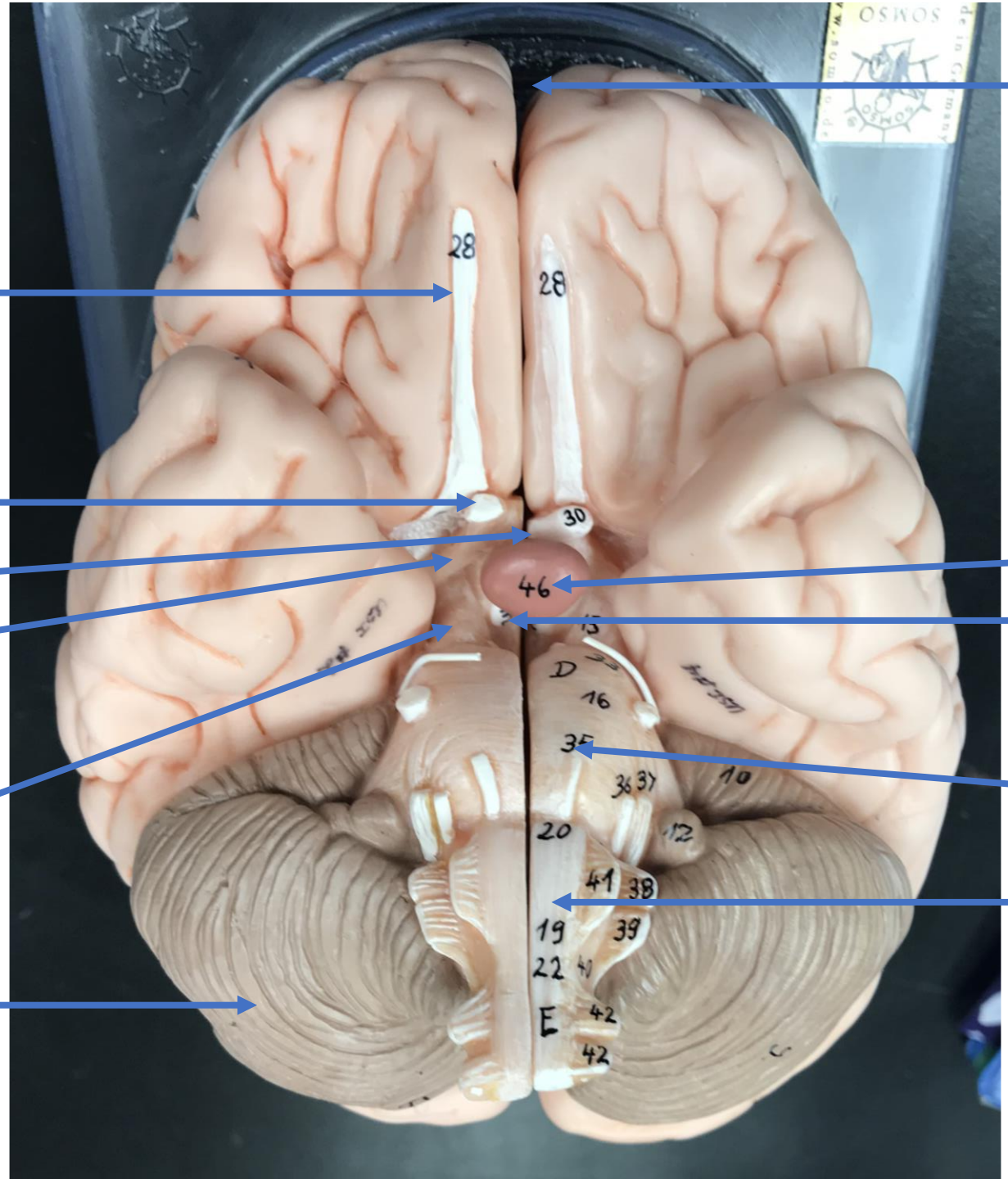
Leg Model
Sciatic Nerve



Internal Structures of the Brain Practice



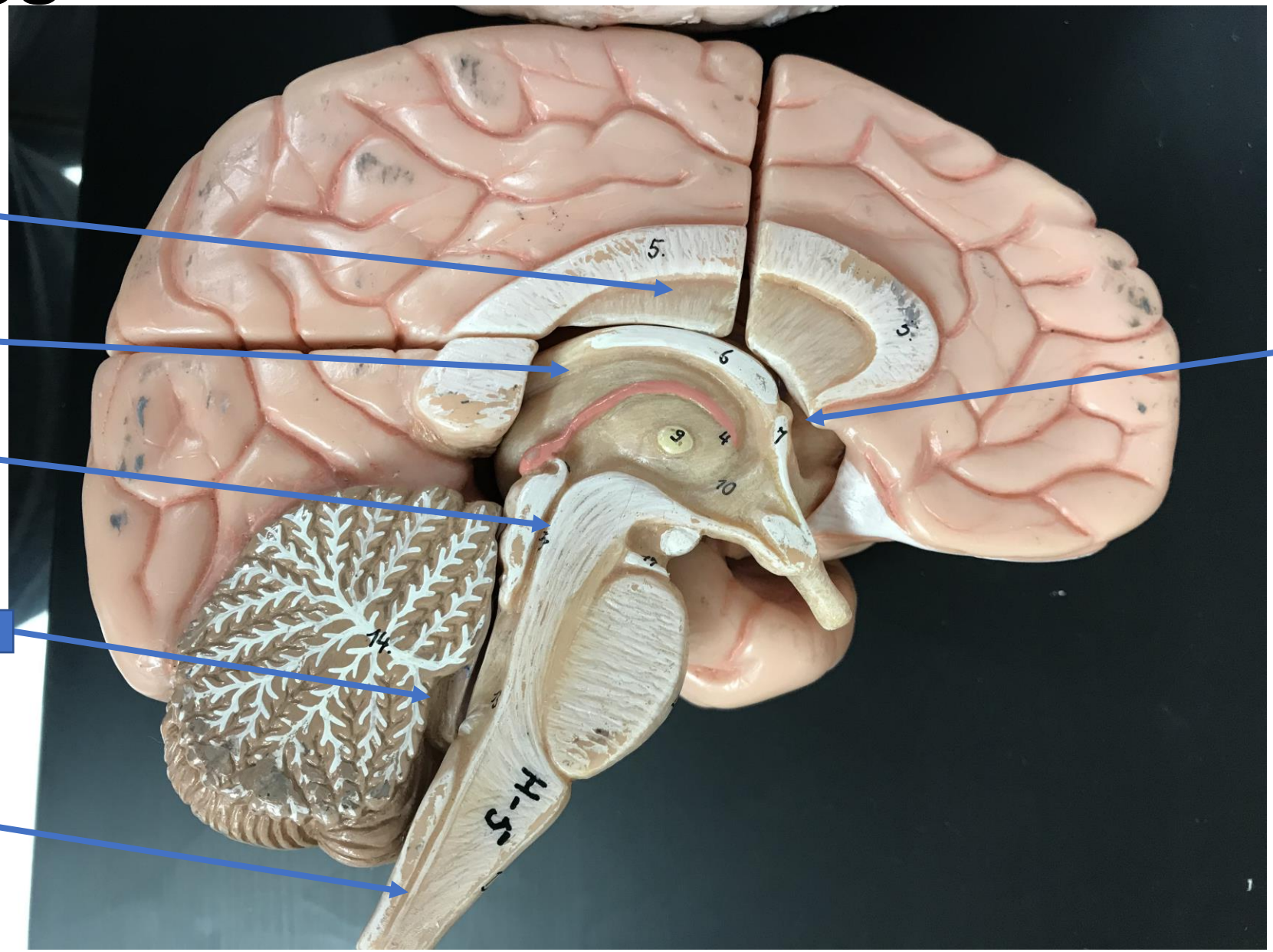
Ventral Structures of the Brain Practice



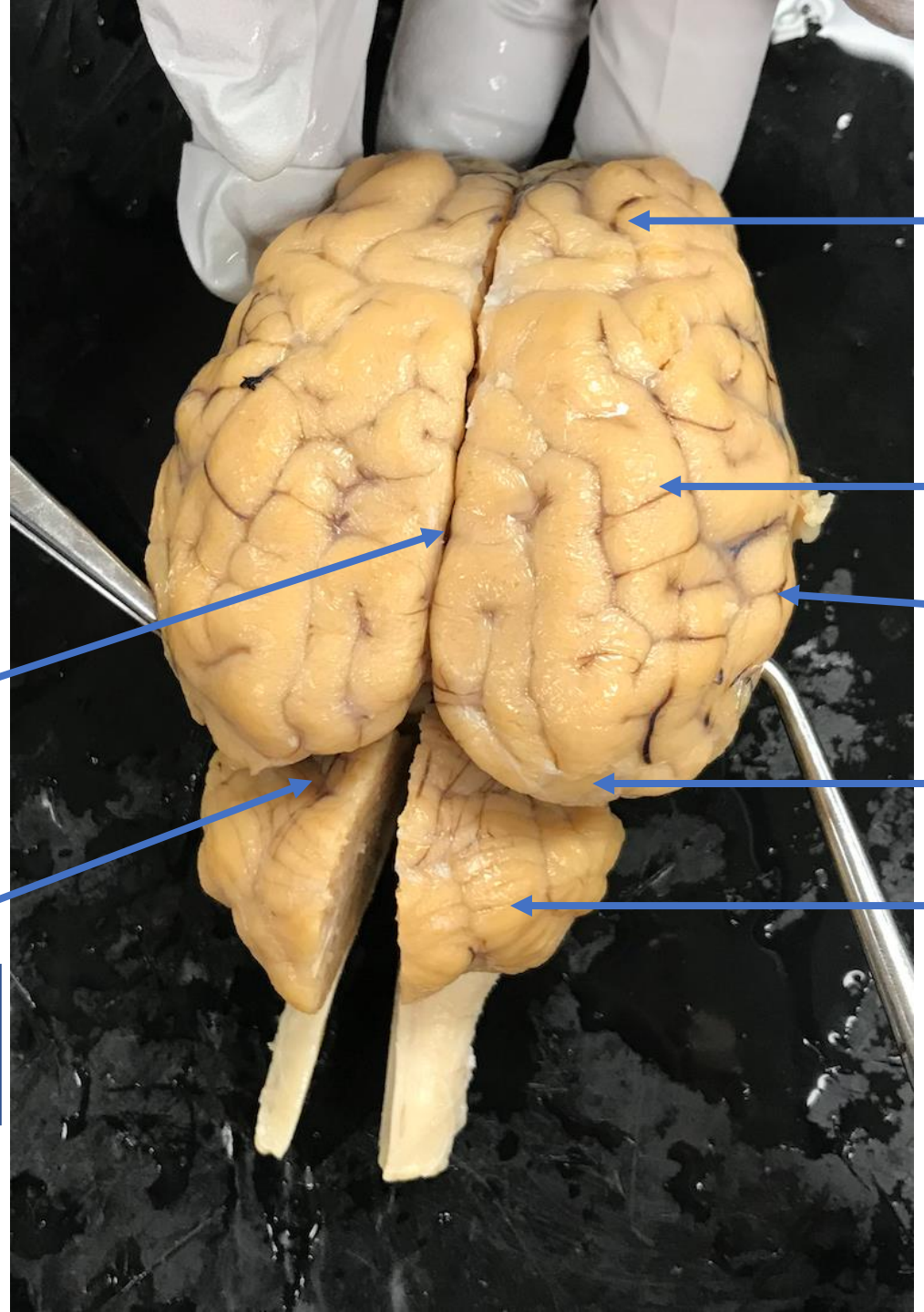
Cranial nerves

Boxes uncover in order of nerves when you use the slide show function

Ventricles



What is the difference between fissures, gyri, and sulci?



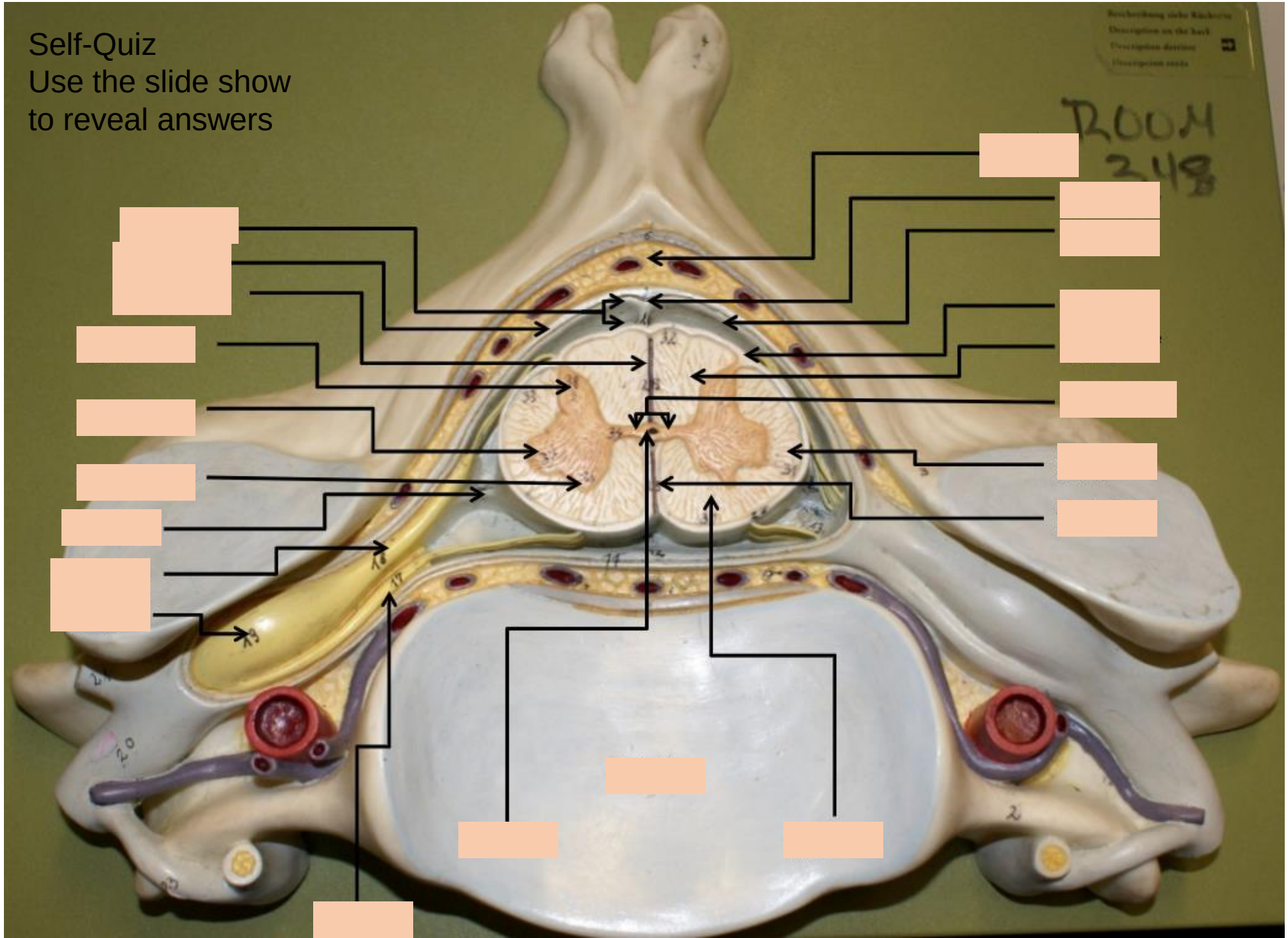
Lobe:

Lobe:

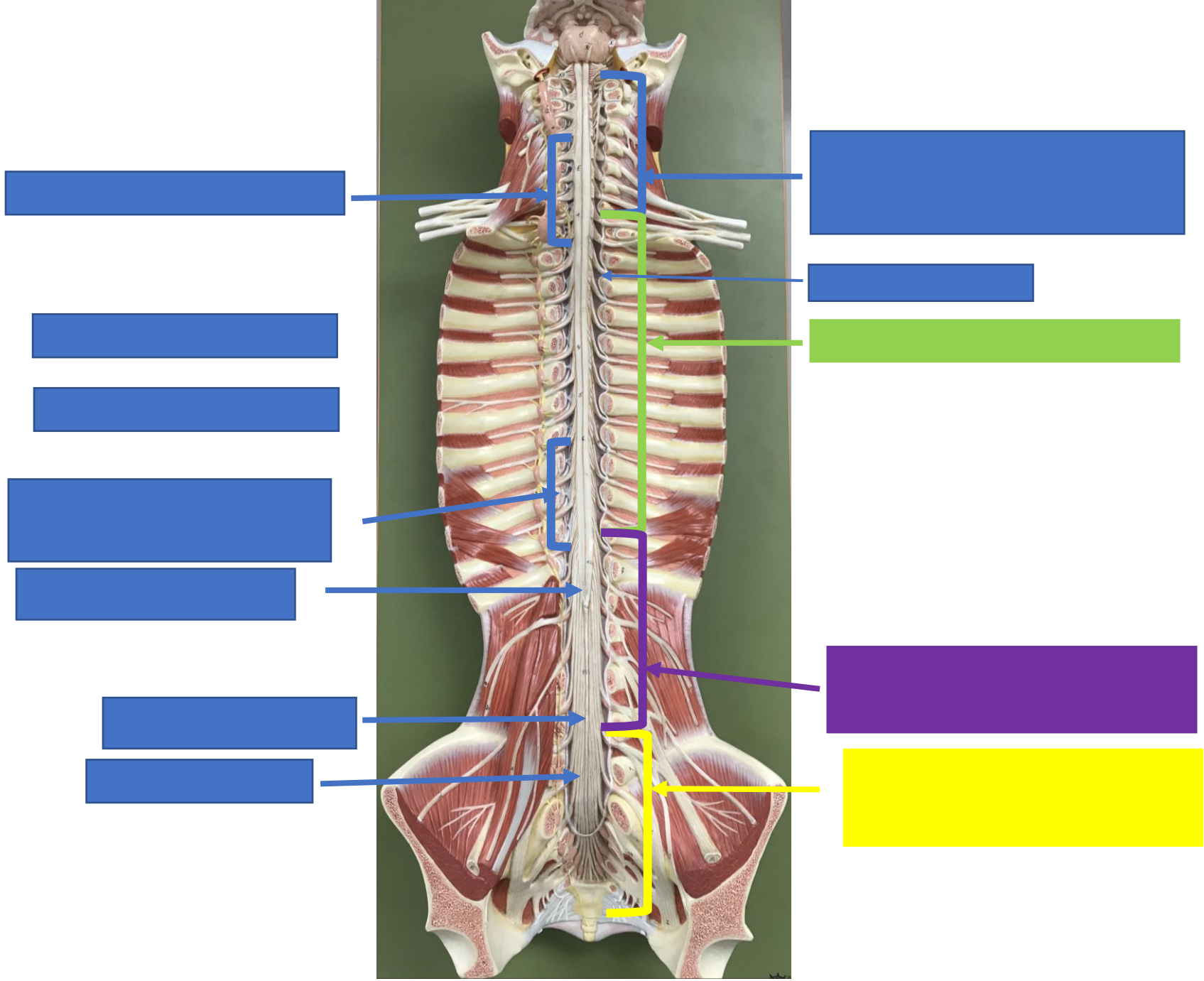
Lobe:

Lobe:

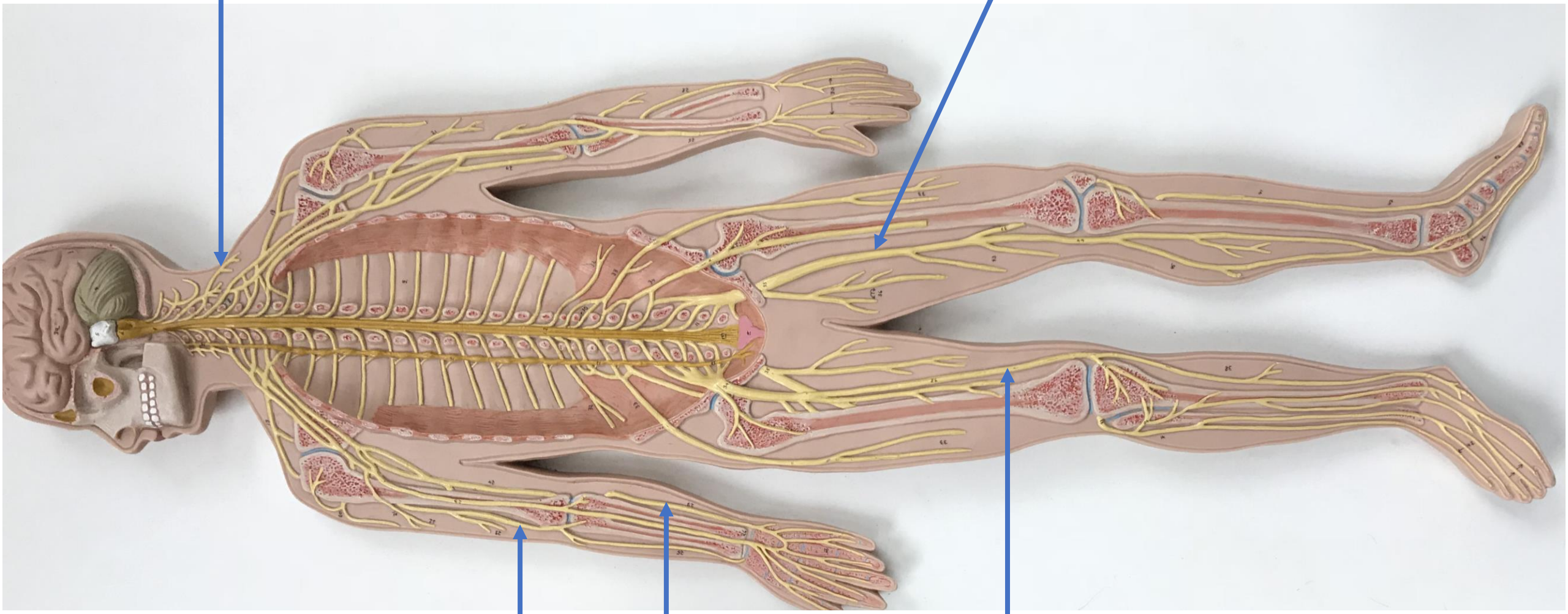
Self-Quiz
Use the slide show
to reveal answers



Anatomical Areas of the Spinal Cord- Practice



Spinal Nerves- Practice



Use Dr. Gannon’s instructional videos to identify portions of the brain on this model