

# Unit 2 Pictures

BIOL 213 Online Lab PowerPoint

**Hint: Slides with colored backgrounds help to divide content into different days.**

# Respiratory Anatomy (and Histology)

# Use the following pictures to help you identify terms from the lab term handout.

\*\*\*You always only need to know the terms listed in the lab term handout!

Another good resource for histology is the Olexik website:

[http://faculty.montgomerycollege.edu/wolexik/205\\_histology\\_page.htm](http://faculty.montgomerycollege.edu/wolexik/205_histology_page.htm)

Another good resource is the Visible Body ATLAS app: <http://atlas.visiblebody.com>

Don't forget that to use the link to download the atlas to a personal device, the device must first be connected to the MCPA Wi-Fi at the Rockville campus.

Figure 22.1 The major respiratory organs in relation to surrounding structures.

# Structural Classification:

- 1. Upper Resp. Sys.
- 2. Lower Resp. Sys.

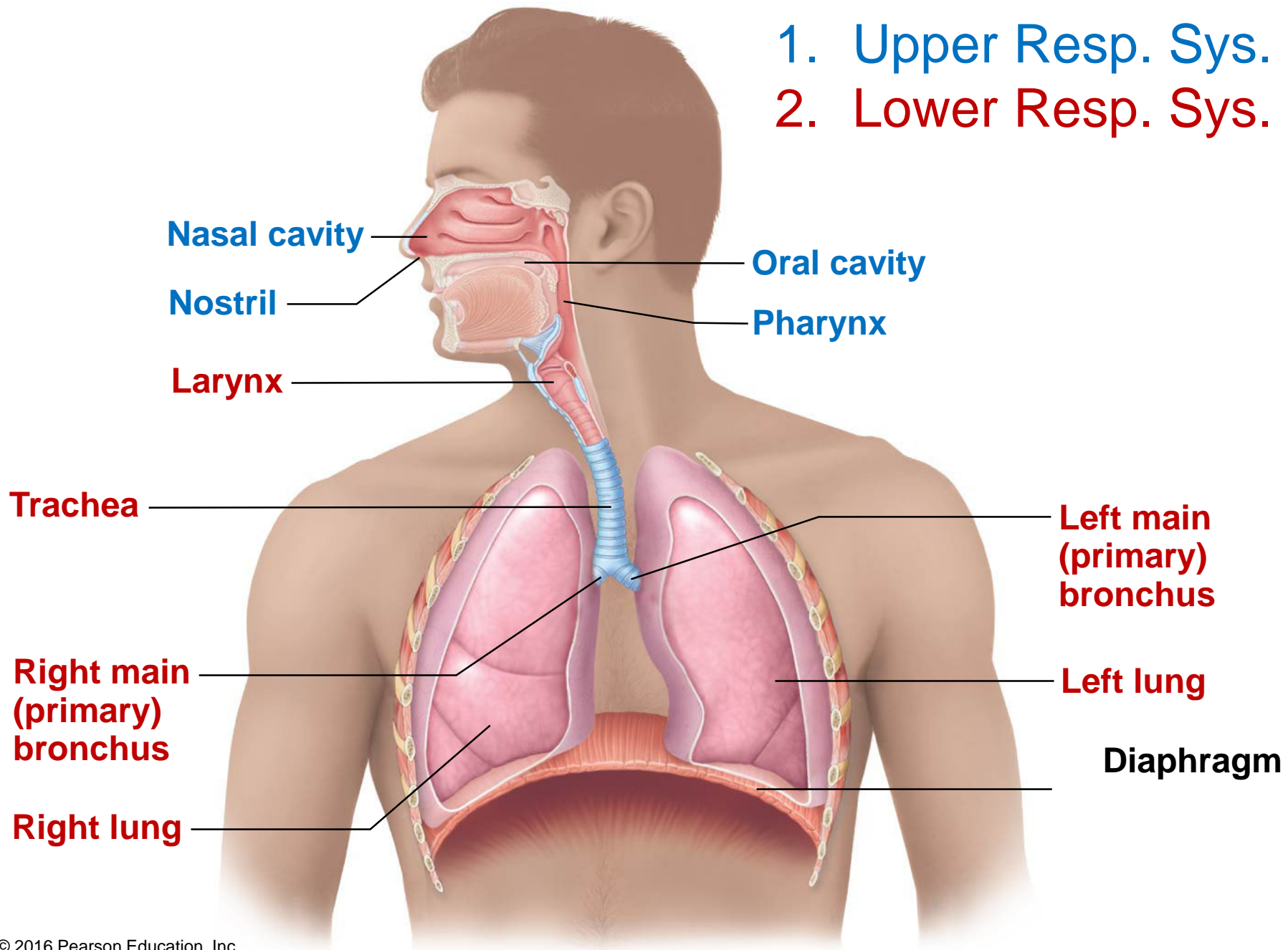


Figure 22.8 Conducting zone passages.

# Structural Classification:

- 1. Upper Resp. Sys.
- 2. Lower Resp. Sys.

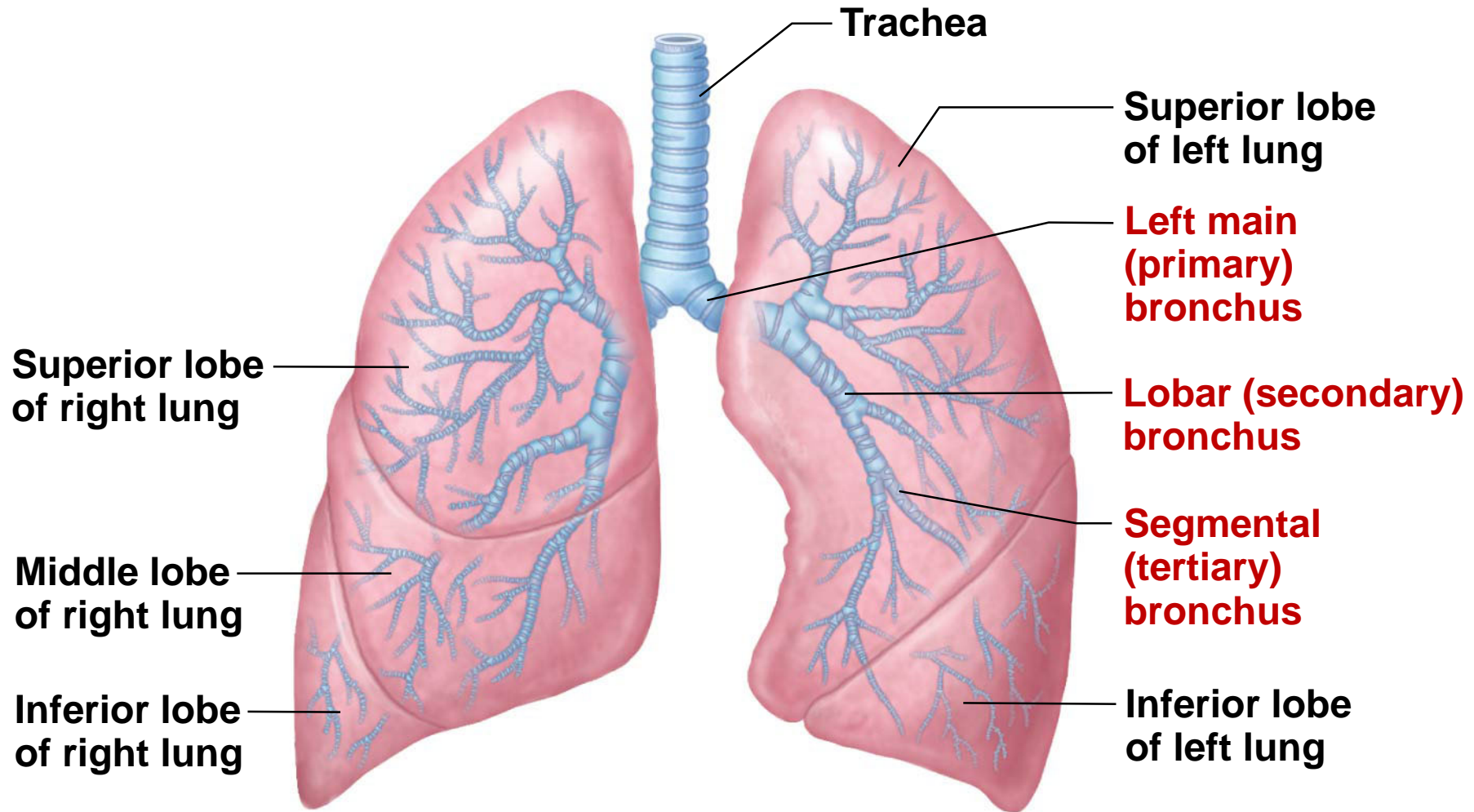


Figure 22.8 Conducting zone passages.

# Structural Classification:

- 1. Upper Resp. Sys.
- 2. Lower Resp. Sys.

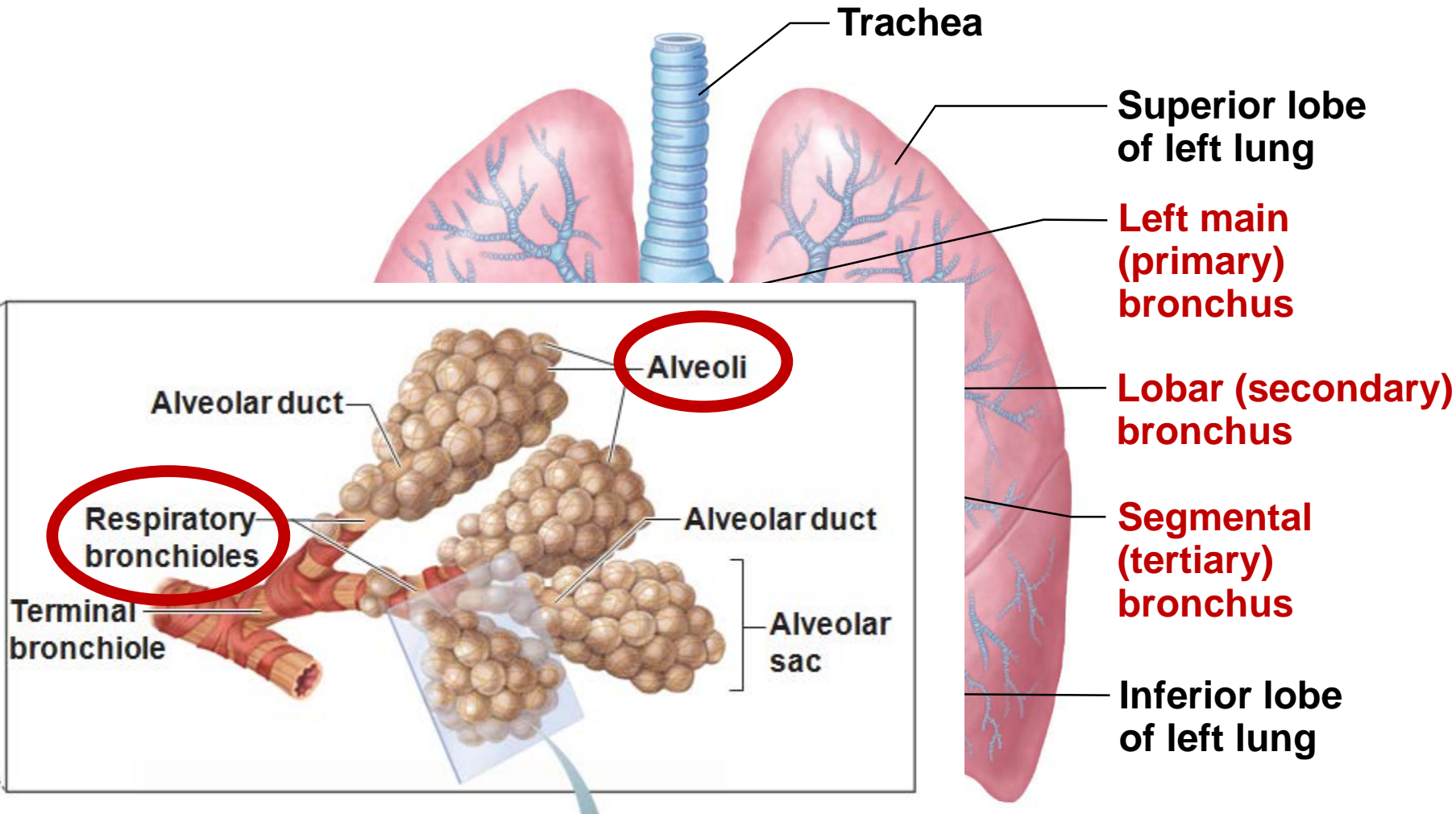


Figure 22.3a The nasal cavity.

# The Nose

**Posterior nasal aperture (Posterior Nare)**

**Sphenoidal sinus**

**Cribriform plate of ethmoid bone**

**Frontal sinus**

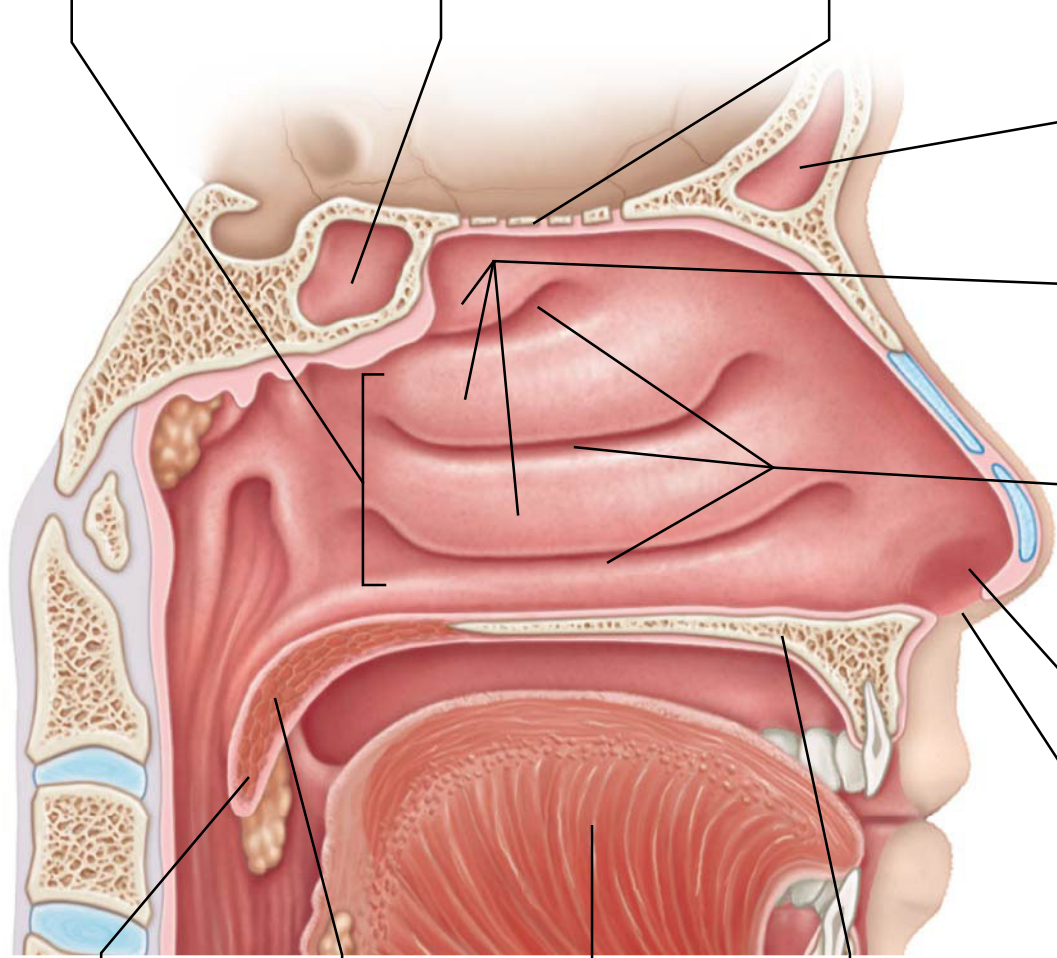
**Nasal cavity**

- **Nasal conchae (superior, middle and inferior)**

- **Nasal meatuses (superior, middle, and inferior)**

- **Nasal vestibule**

- **Nostril (Anterior Nare)**



**Uvula**

**Soft palate**

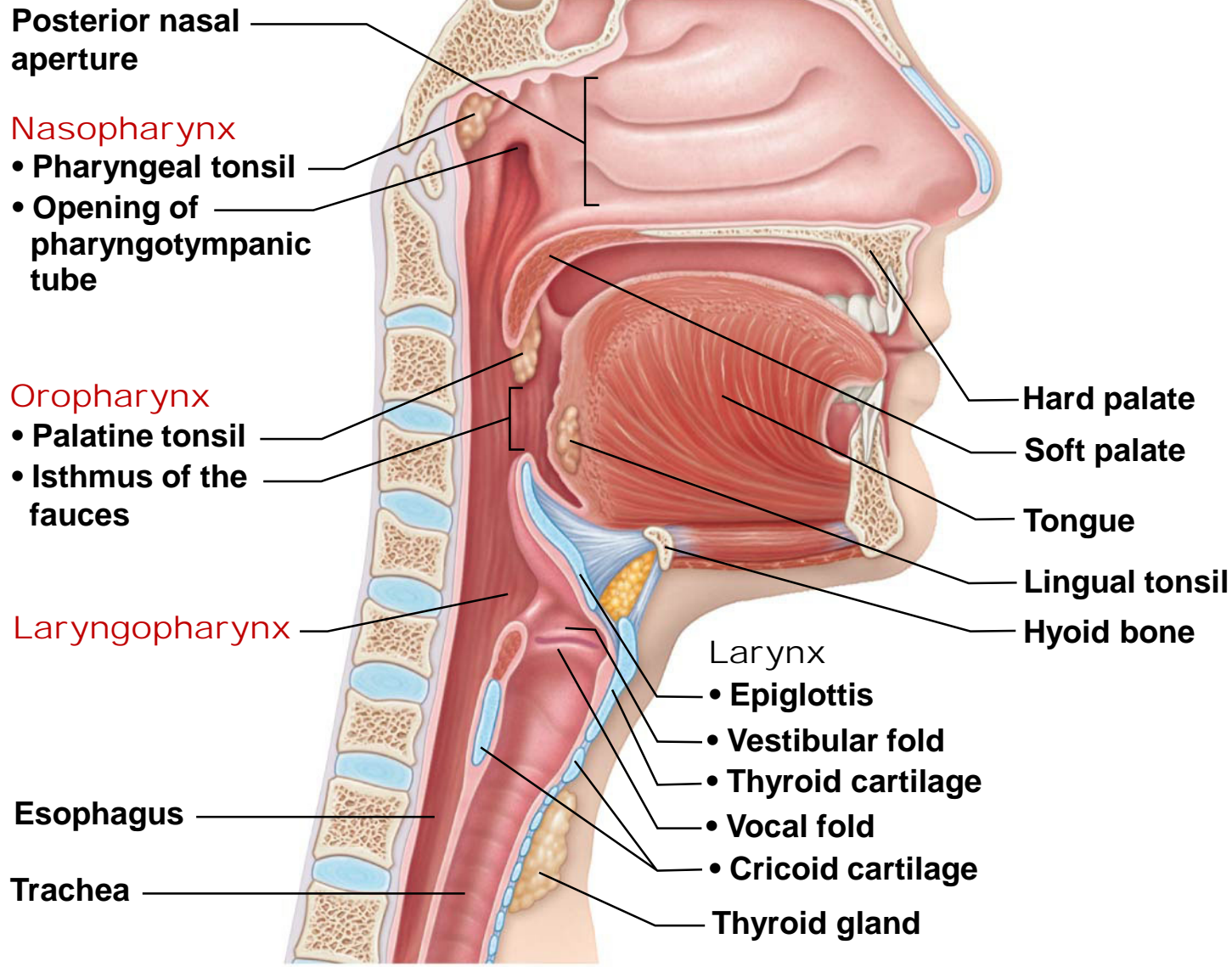
**Tongue**

**Hard palate**

**(a)**

Figure 22.4b The pharynx, larynx, and upper trachea.

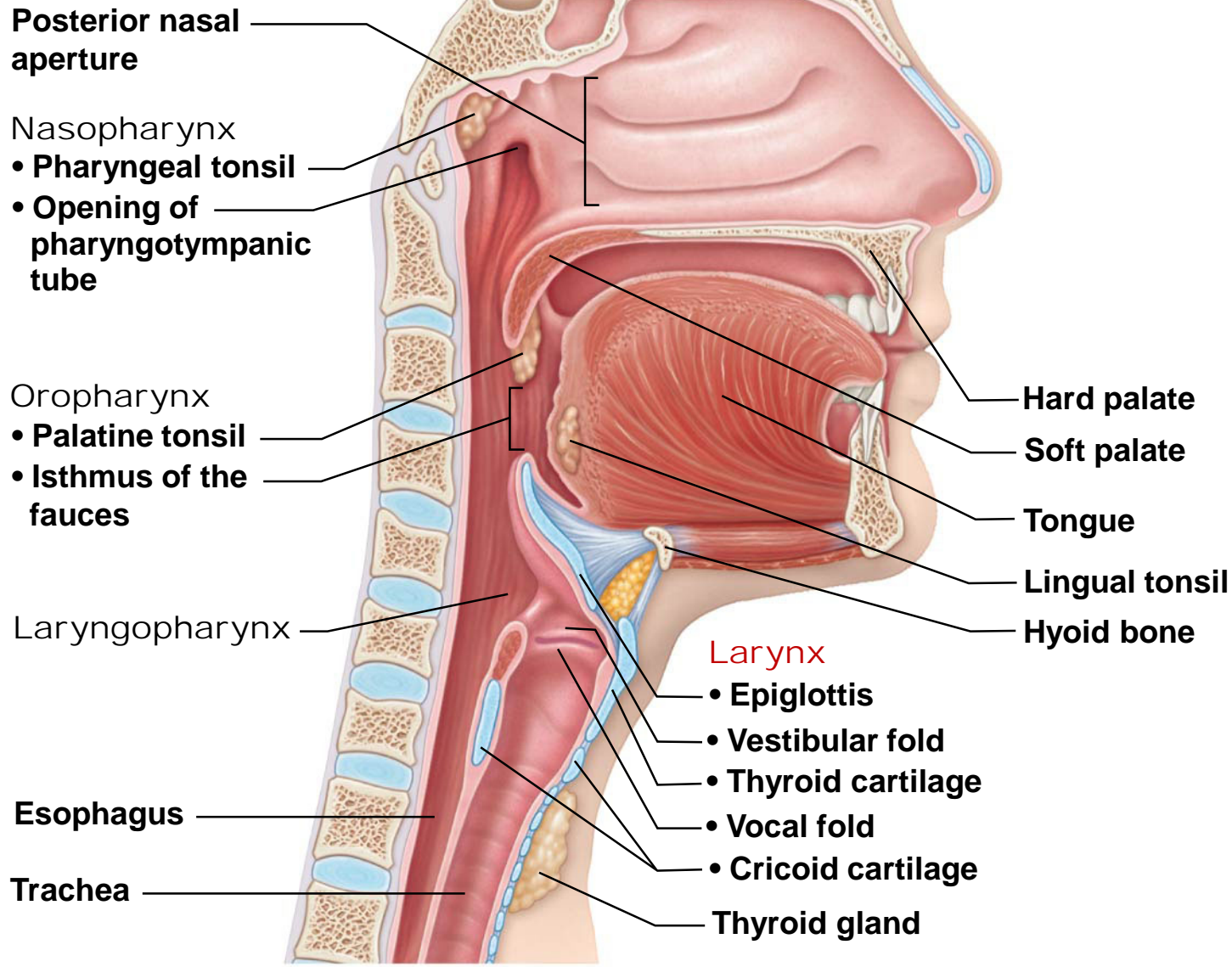
# Pharynx



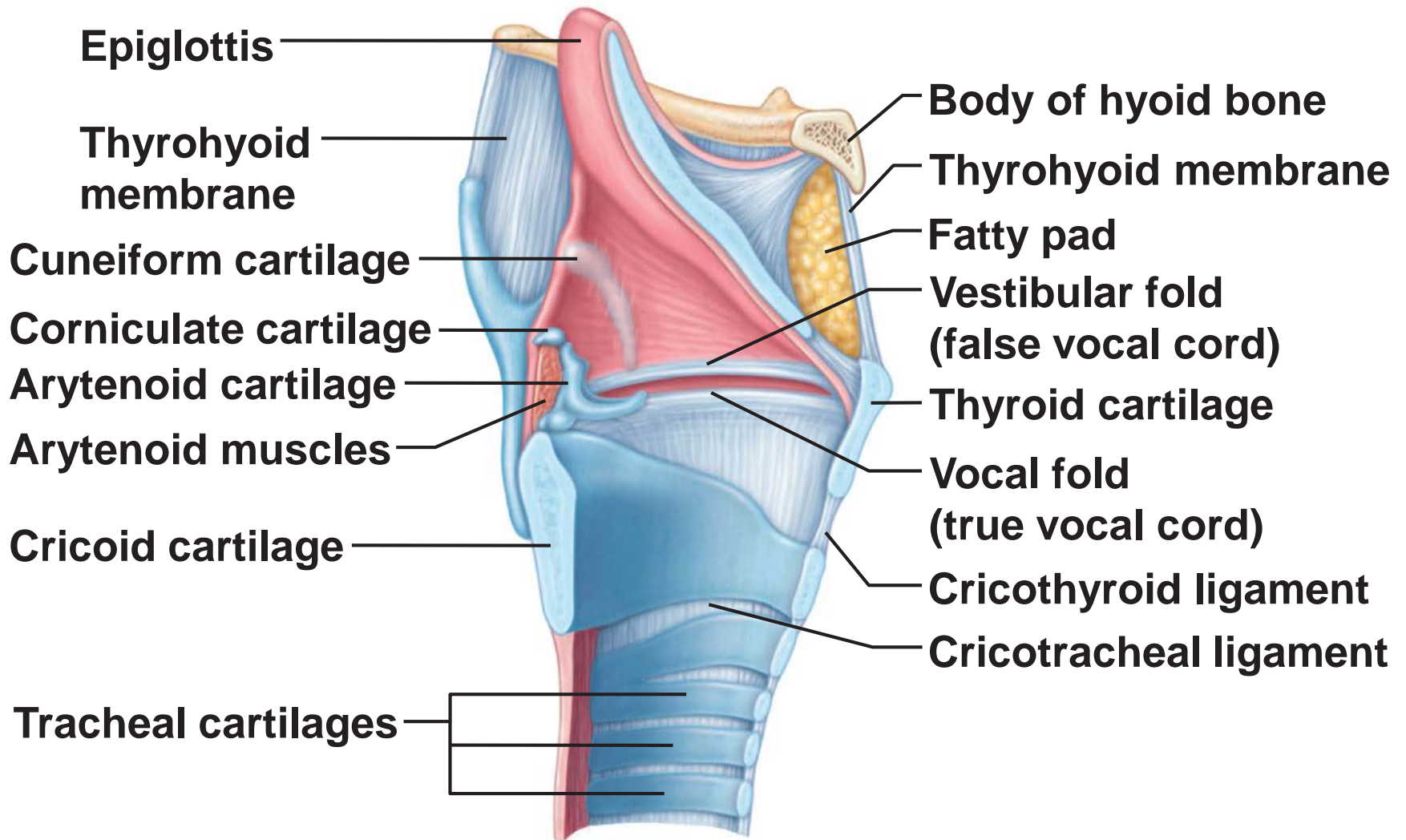
(b) Structures of the pharynx and larynx



# Larynx



(b) Structures of the pharynx and larynx



(b) Sagittal view; anterior surface to the right

# Trachea

- Windpipe

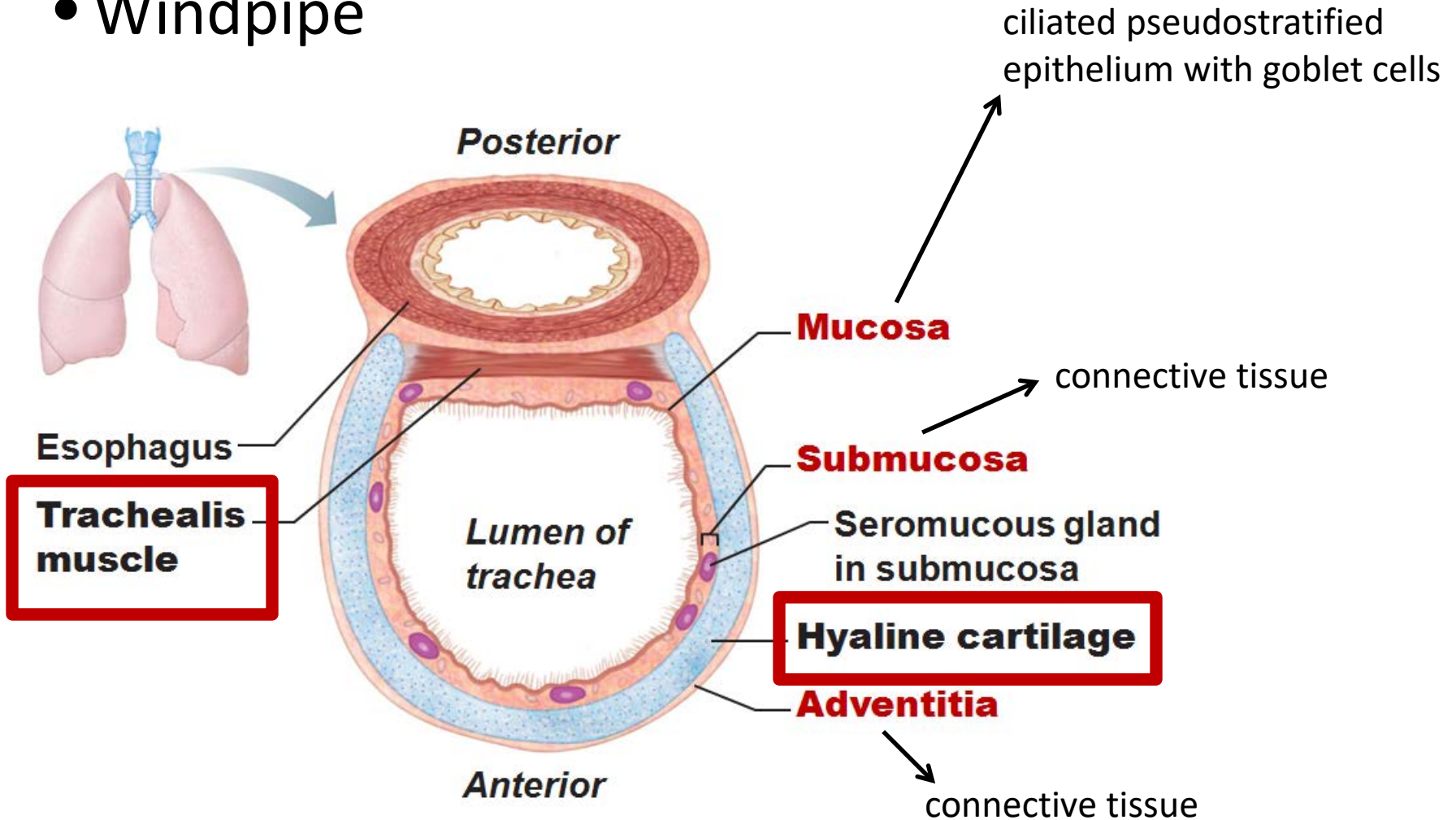
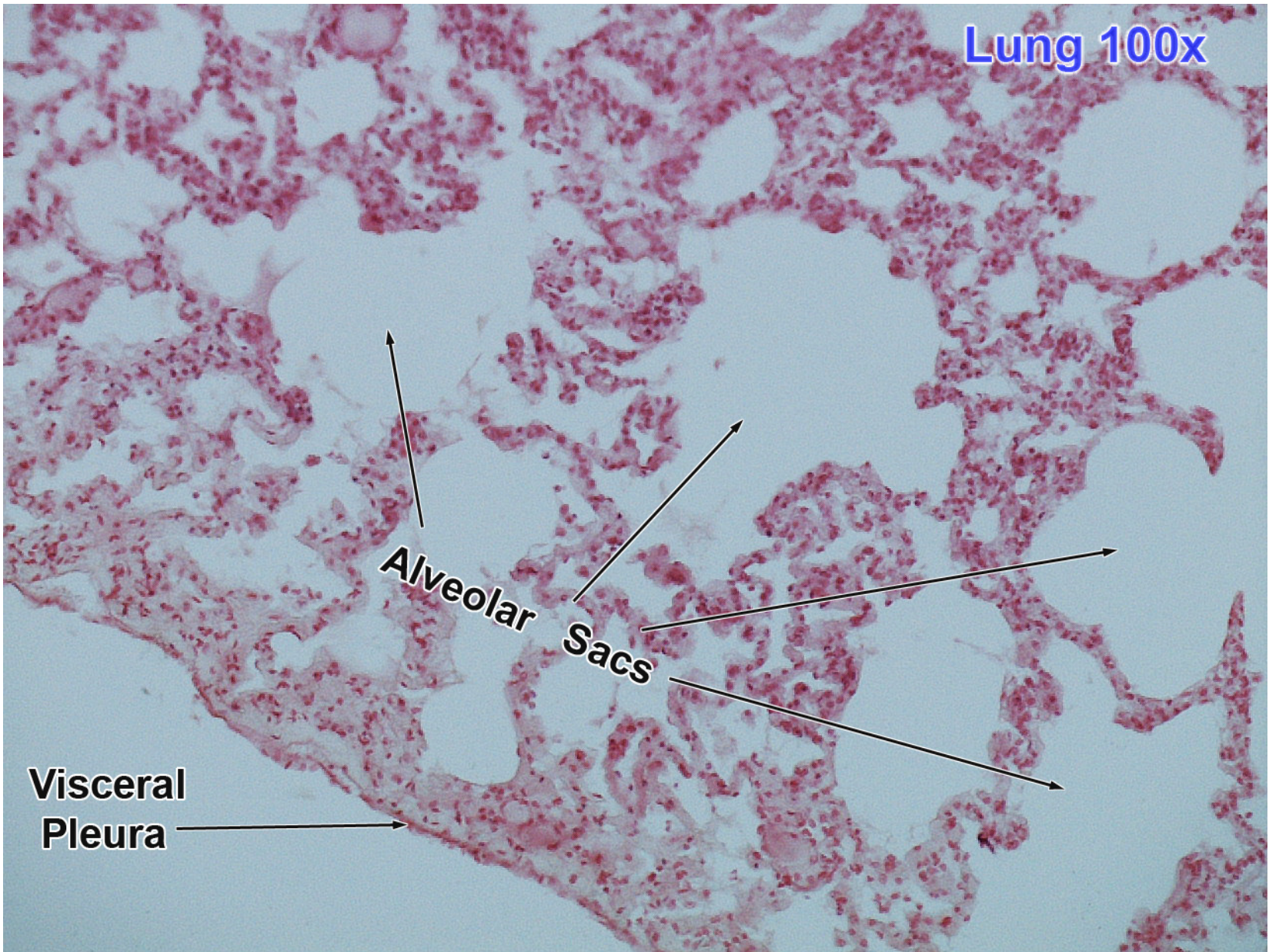


Figure 22.6a

Lung 100x



Alveolar Sacs

Visceral Pleura

Lung 40x

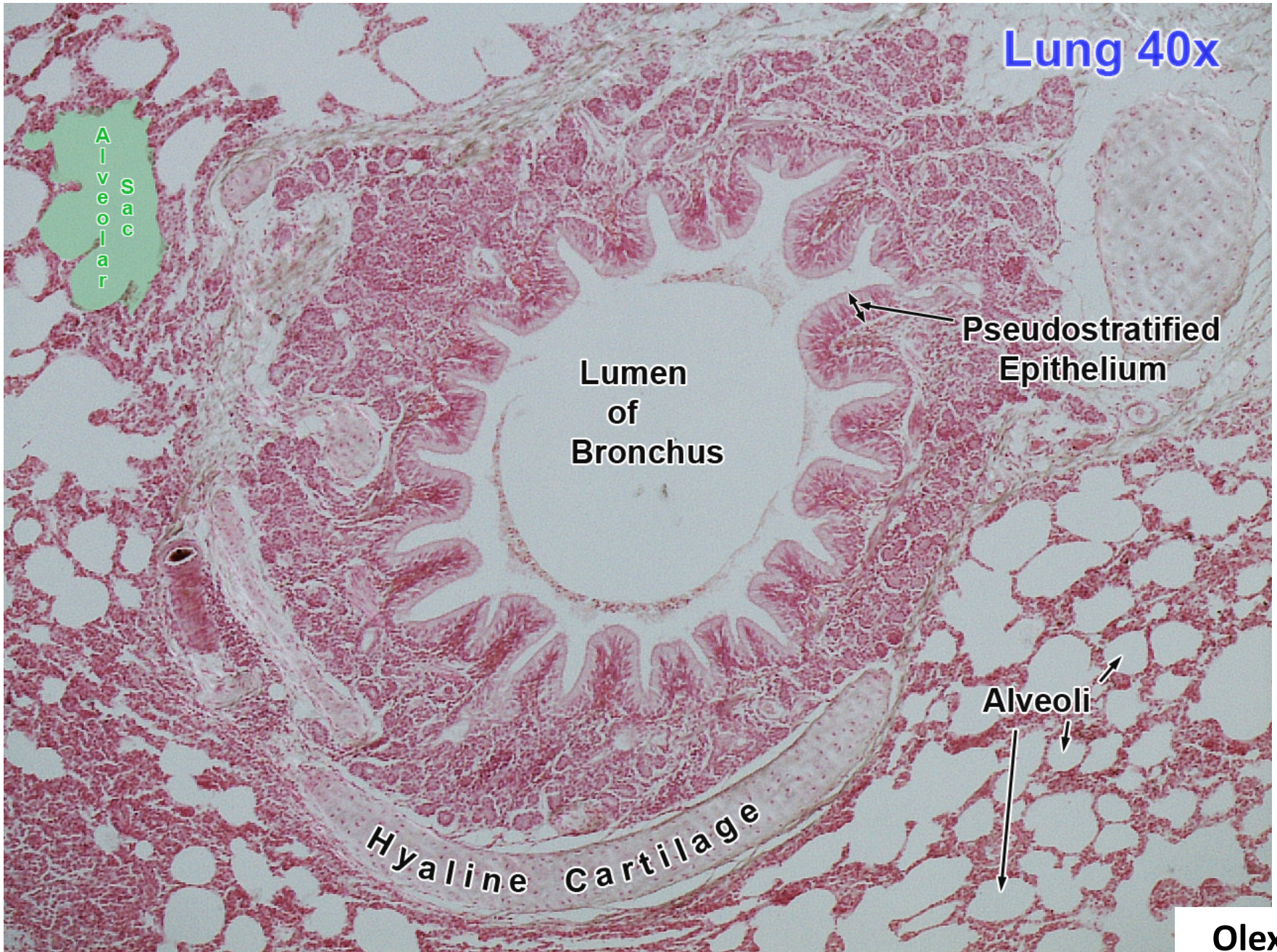
Alveolar Sac

Lumen of Bronchus

Pseudostratified Epithelium

Hyaline Cartilage

Alveoli

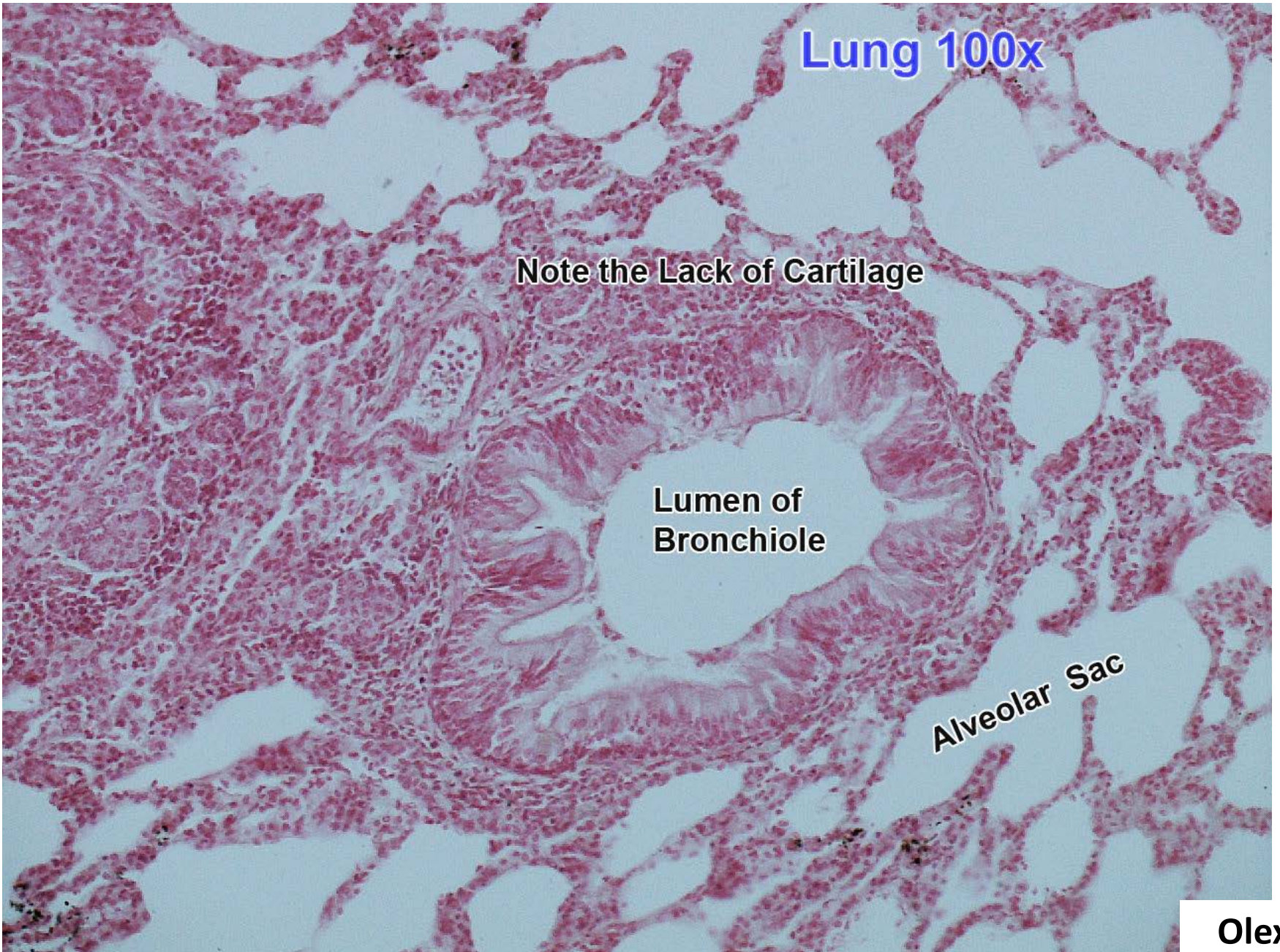


**Lung 100x**

**Note the Lack of Cartilage**

**Lumen of  
Bronchiole**

**Alveolar Sac**



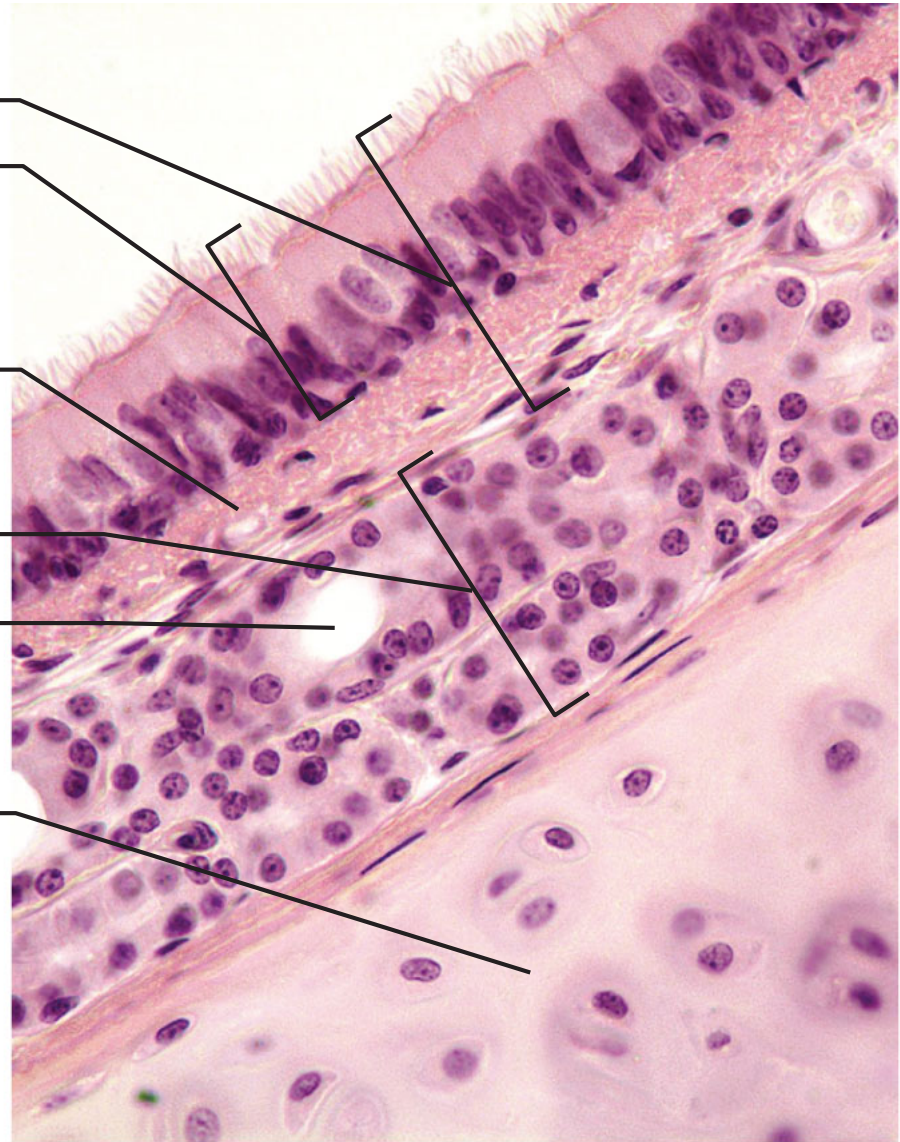
**Mucosa**

- **Pseudostratified ciliated columnar epithelium**
- **Lamina propria (connective tissue)**

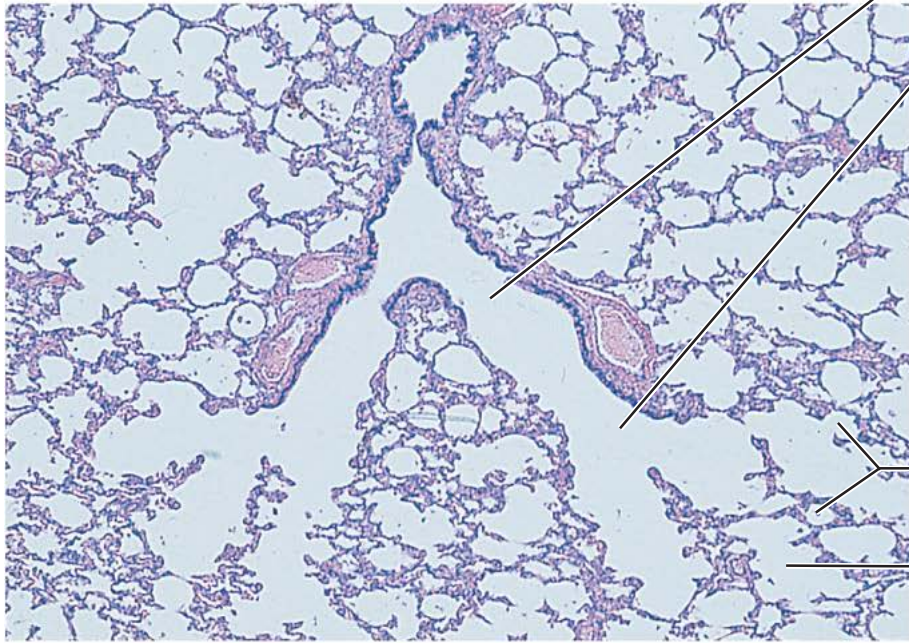
**Submucosa**

**Seromucous gland in submucosa**

**Hyaline cartilage**



(b) Photomicrograph of the tracheal wall (320x)

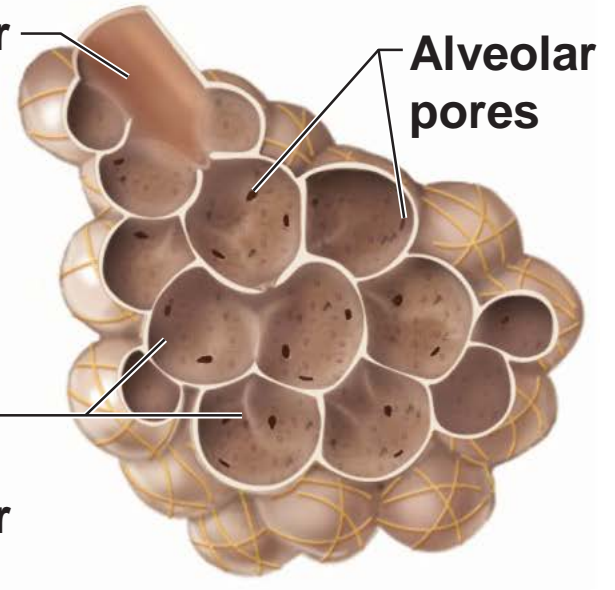


**Respiratory  
bronchiole**

**Alveolar  
duct**

**Alveoli**

**Alveolar  
sac**



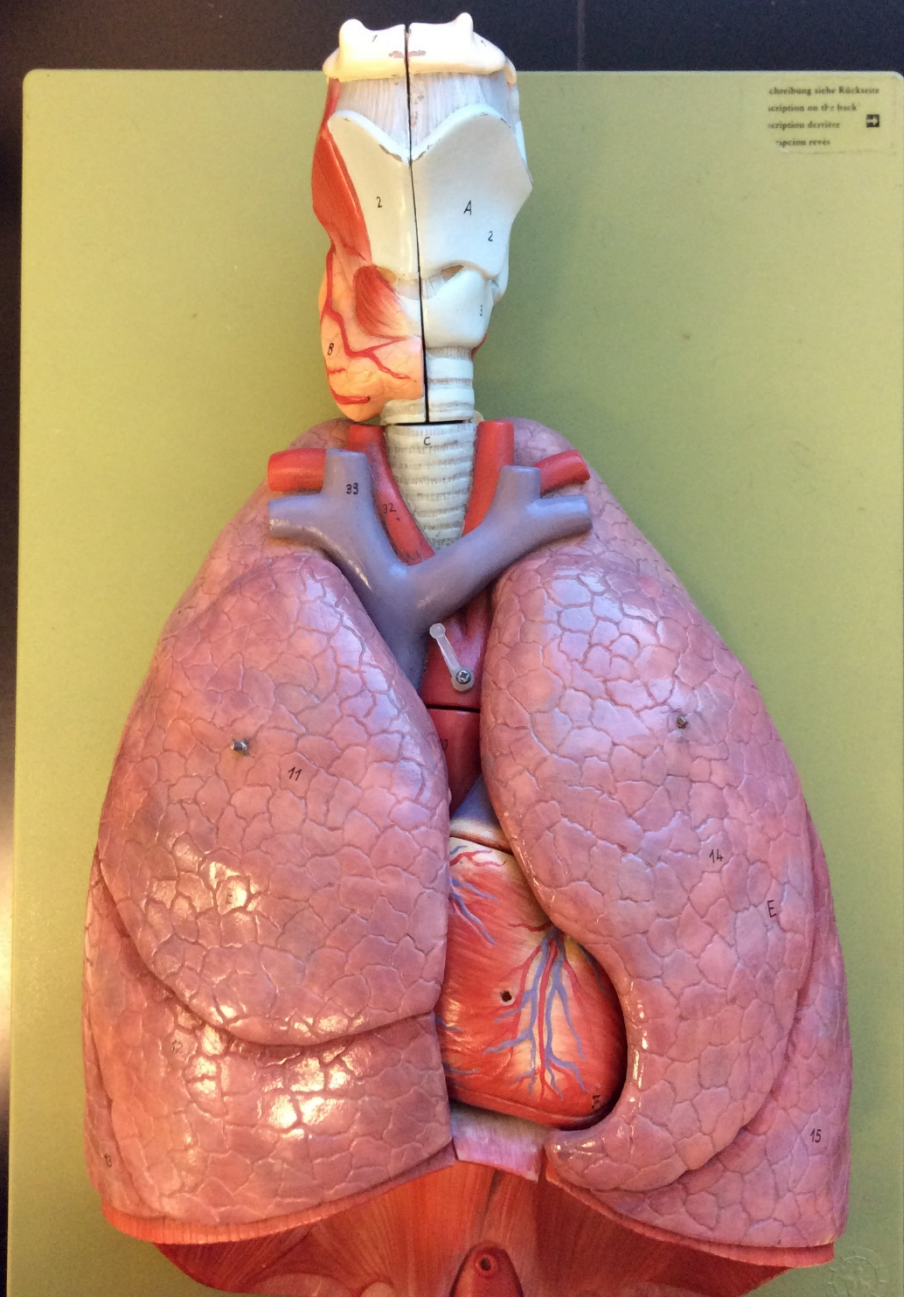
**Alveolar  
pores**

(b)

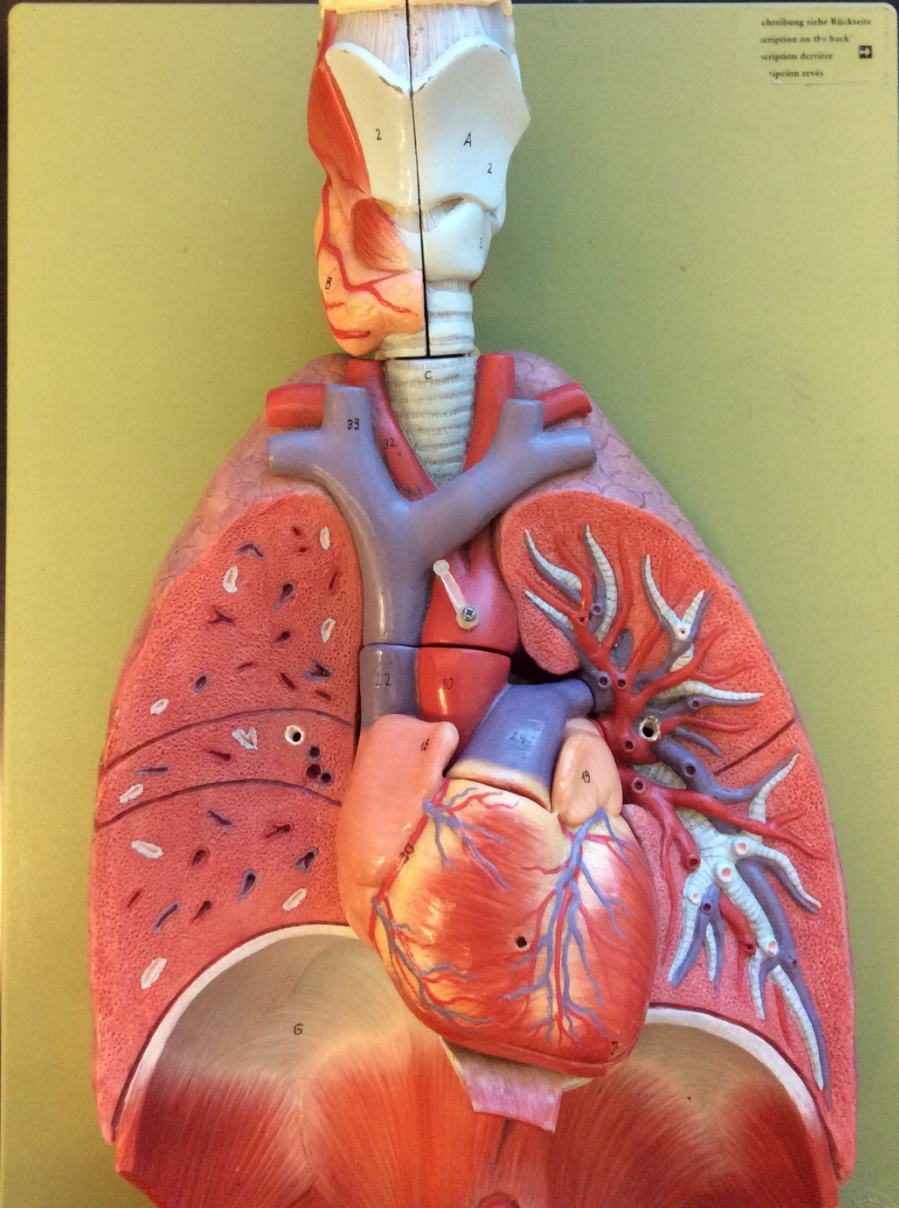


**Use the following pictures to help you practice finding the terms from the lab term handout on unlabeled images.**

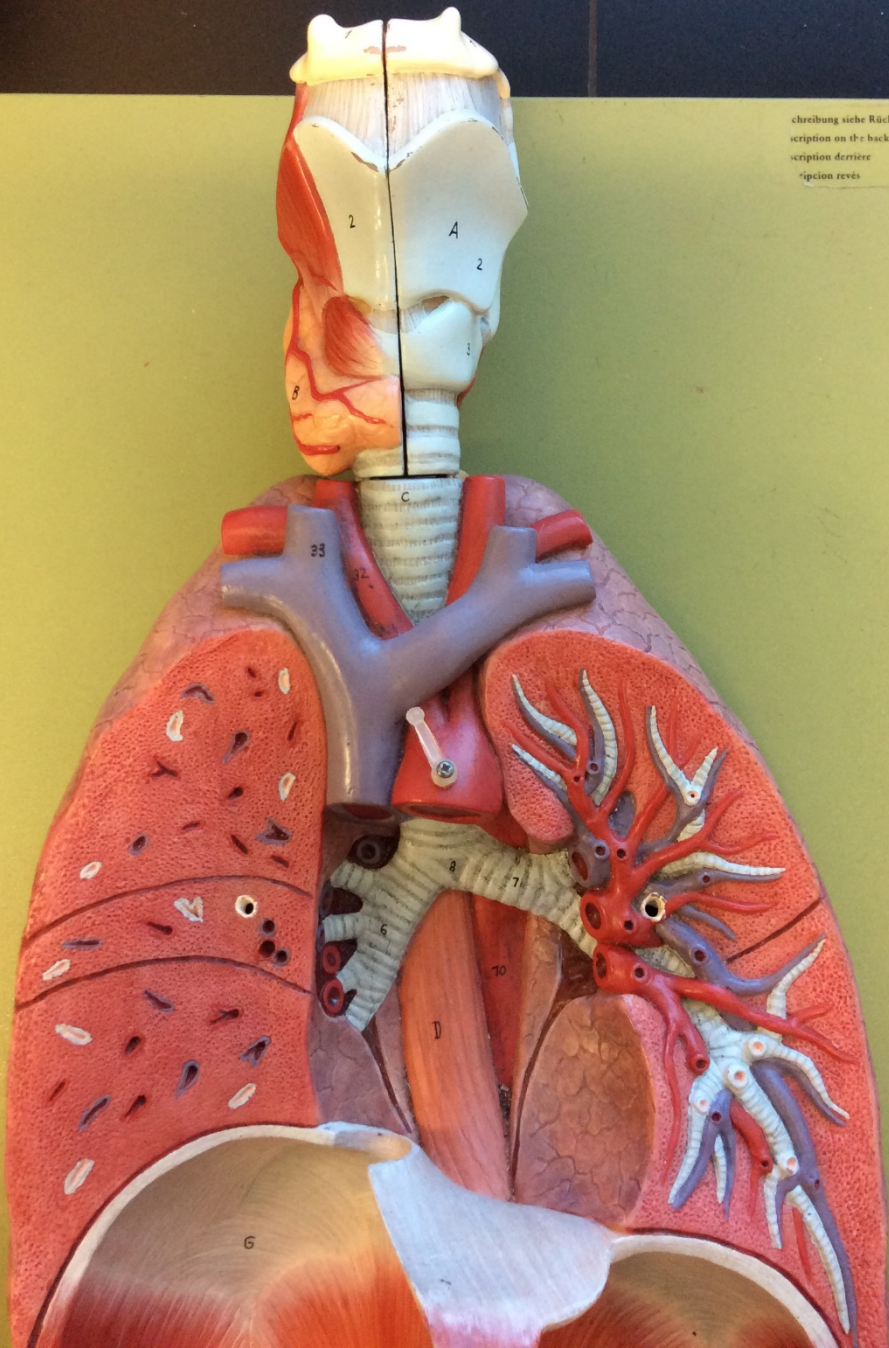
- Remember, you won't learn them if you don't take plenty of time to practice on pictures with NO labels (including no labels for what type of slide it is on histology pictures)!
- Also, be sure to mix up the order once you get comfortable with the unlabeled slides.
- Over the weekend, once you are feeling confident with the pictures here, do the histology quizzes in PAL (from the Pearson website) to get practice with new pictures that you haven't seen.



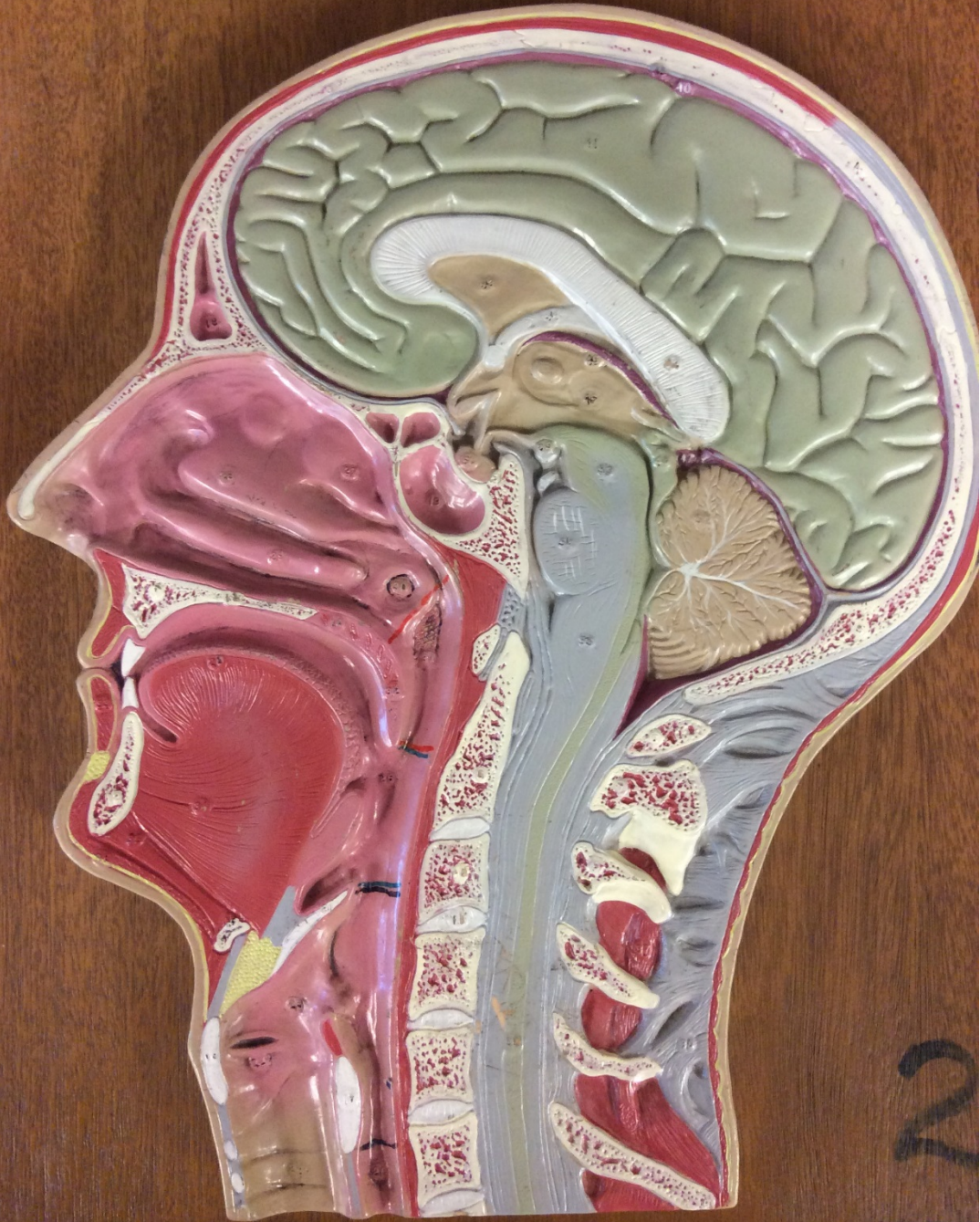
Schreibung siehe Rückenansicht  
Description on the back  
Description dorsale  
"specimen reverso"

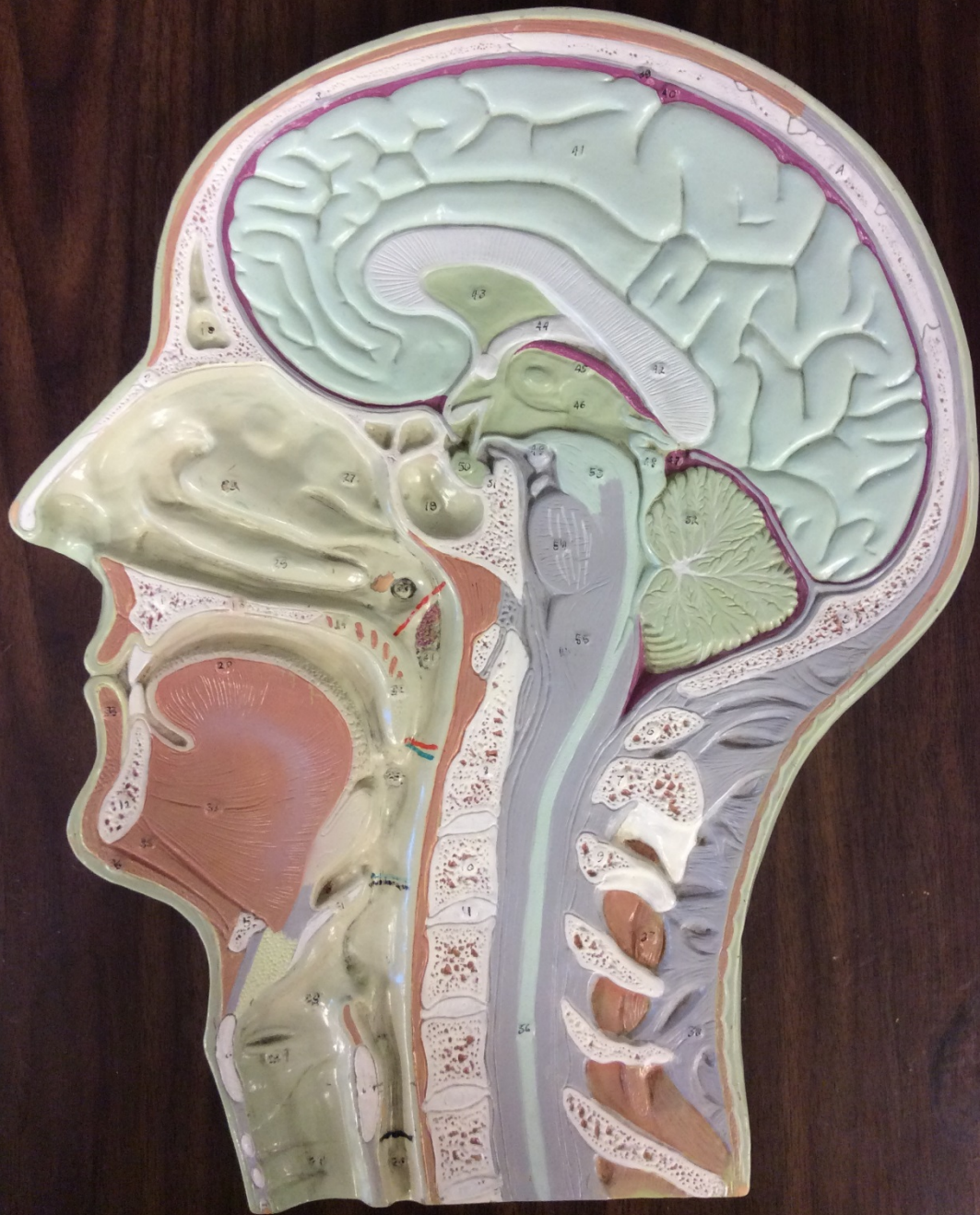


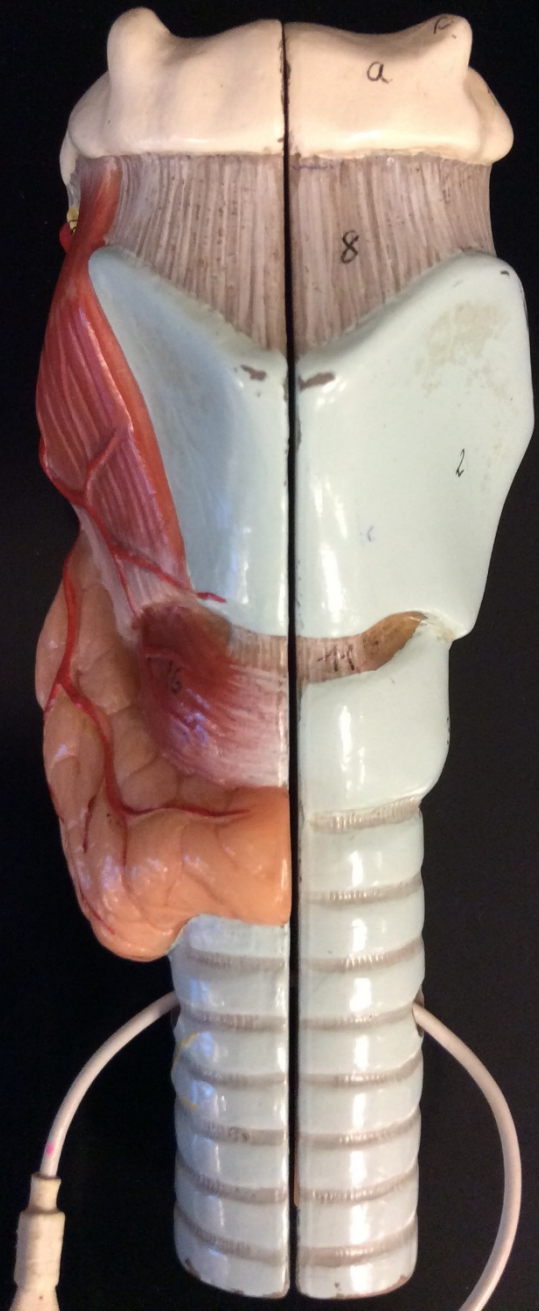
beschreibung siehe Rückseite  
description on the back  
description derrière  
opinion revers

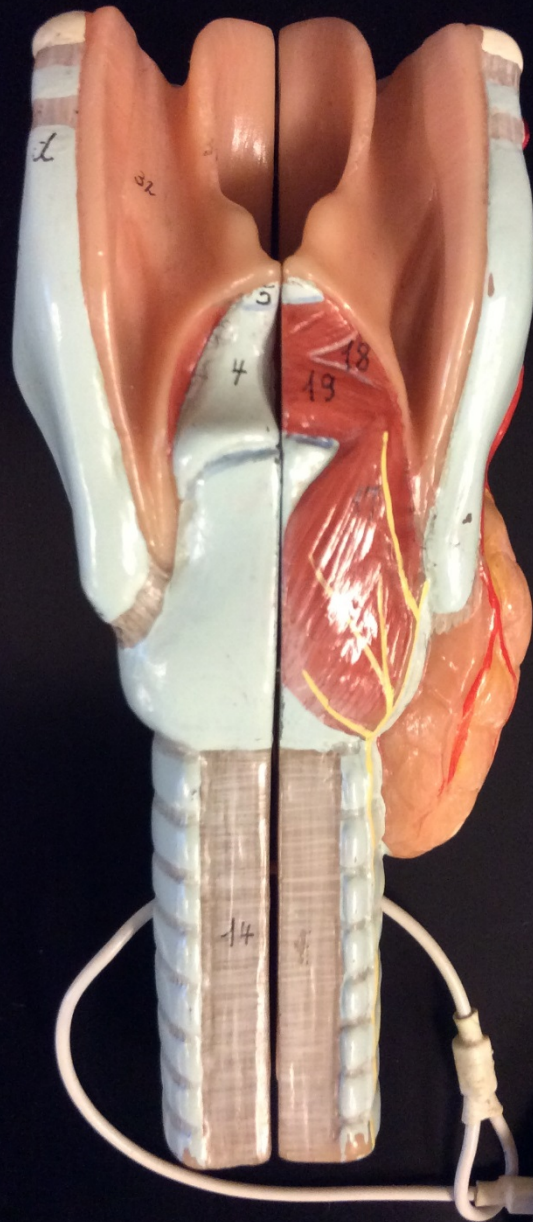


beschreibung siehe Rückseite  
description on the back  
description derriere  
description revers





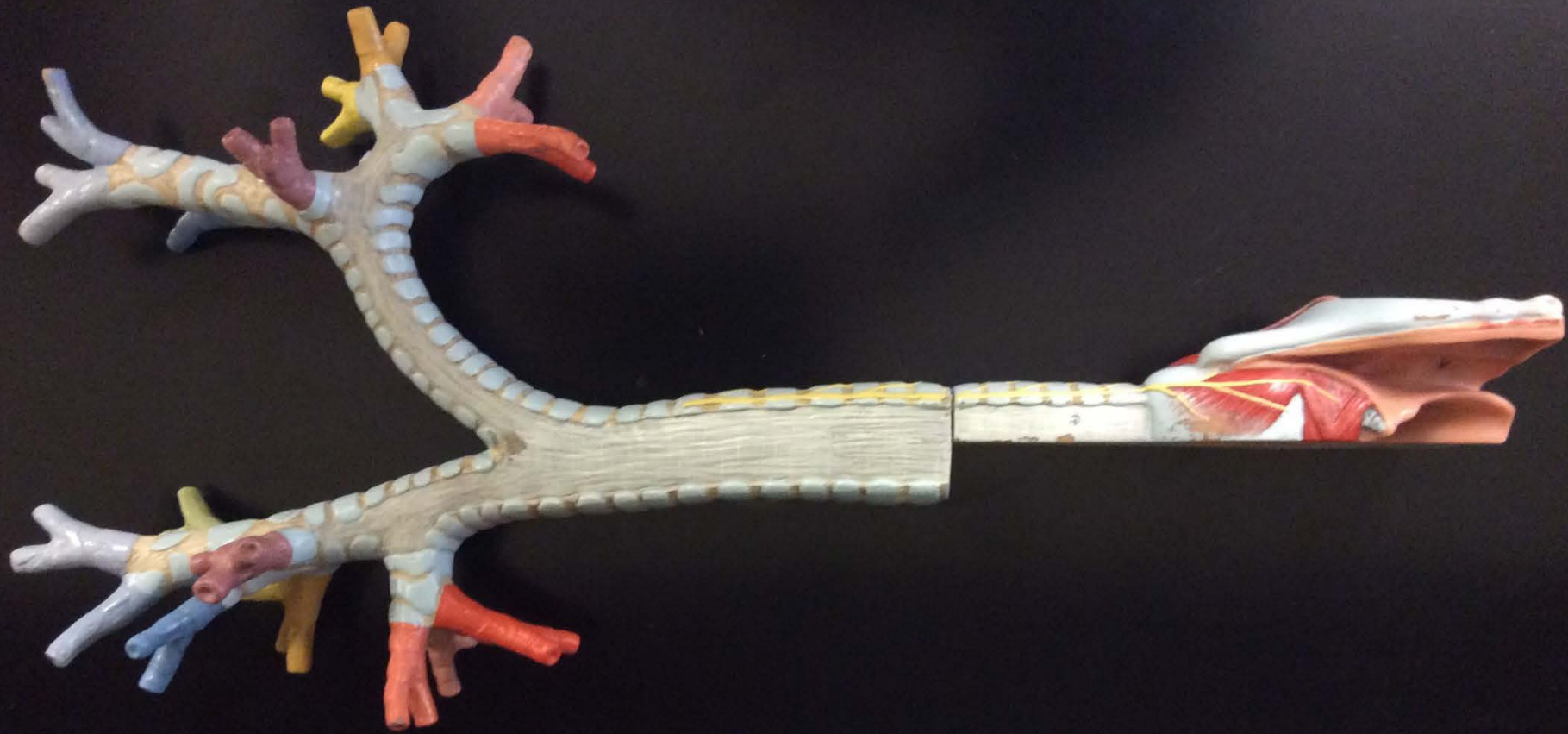


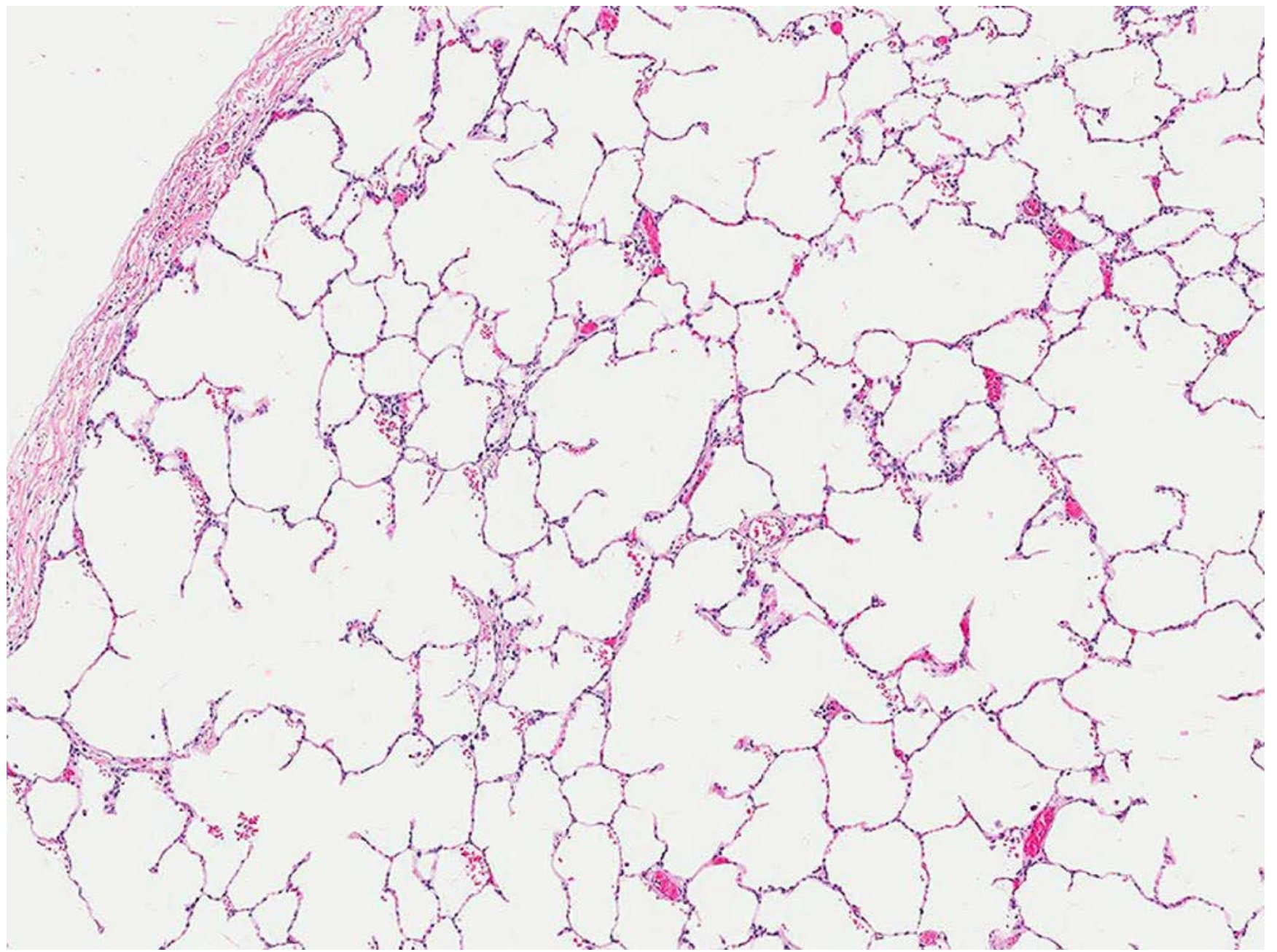


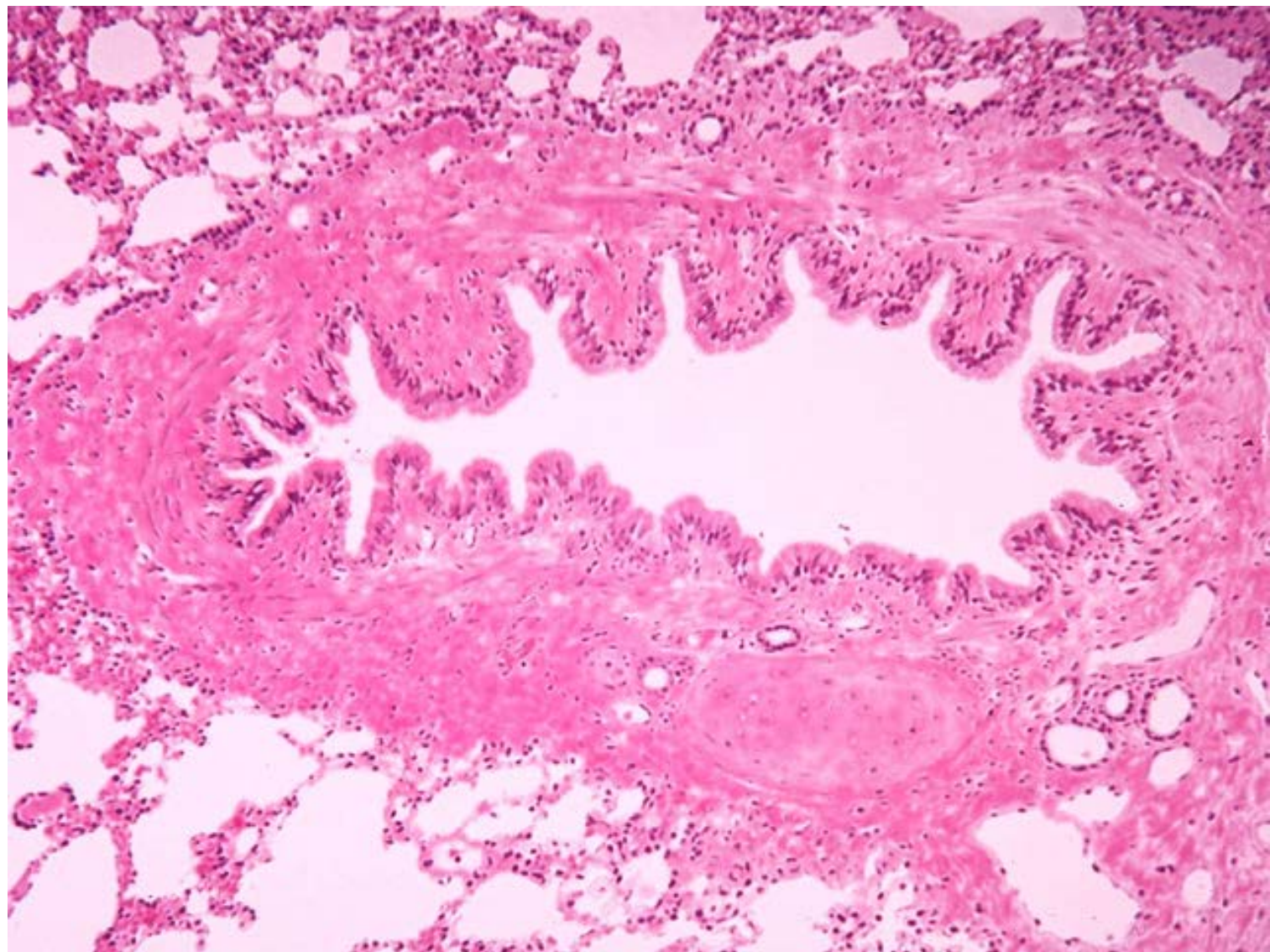


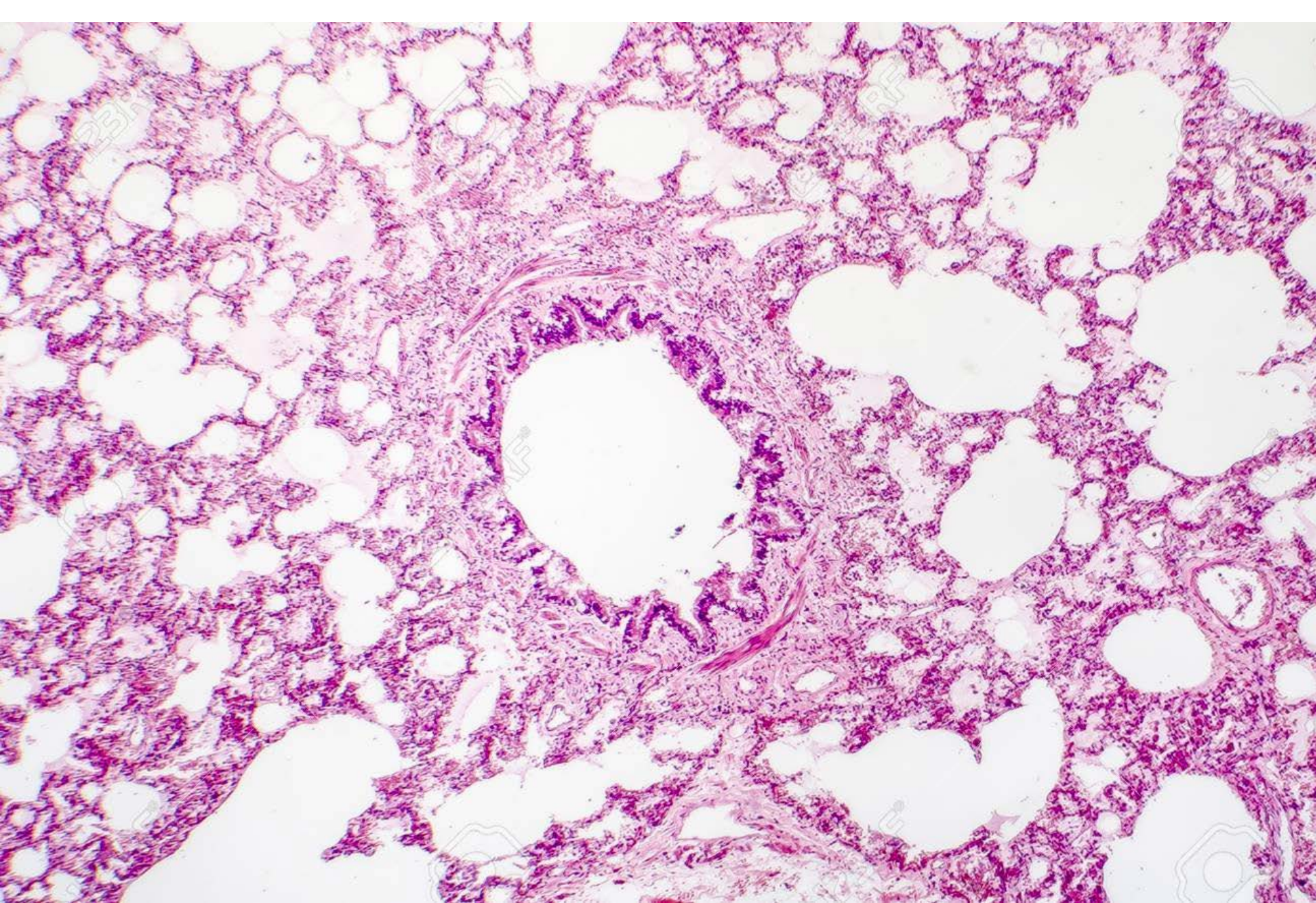


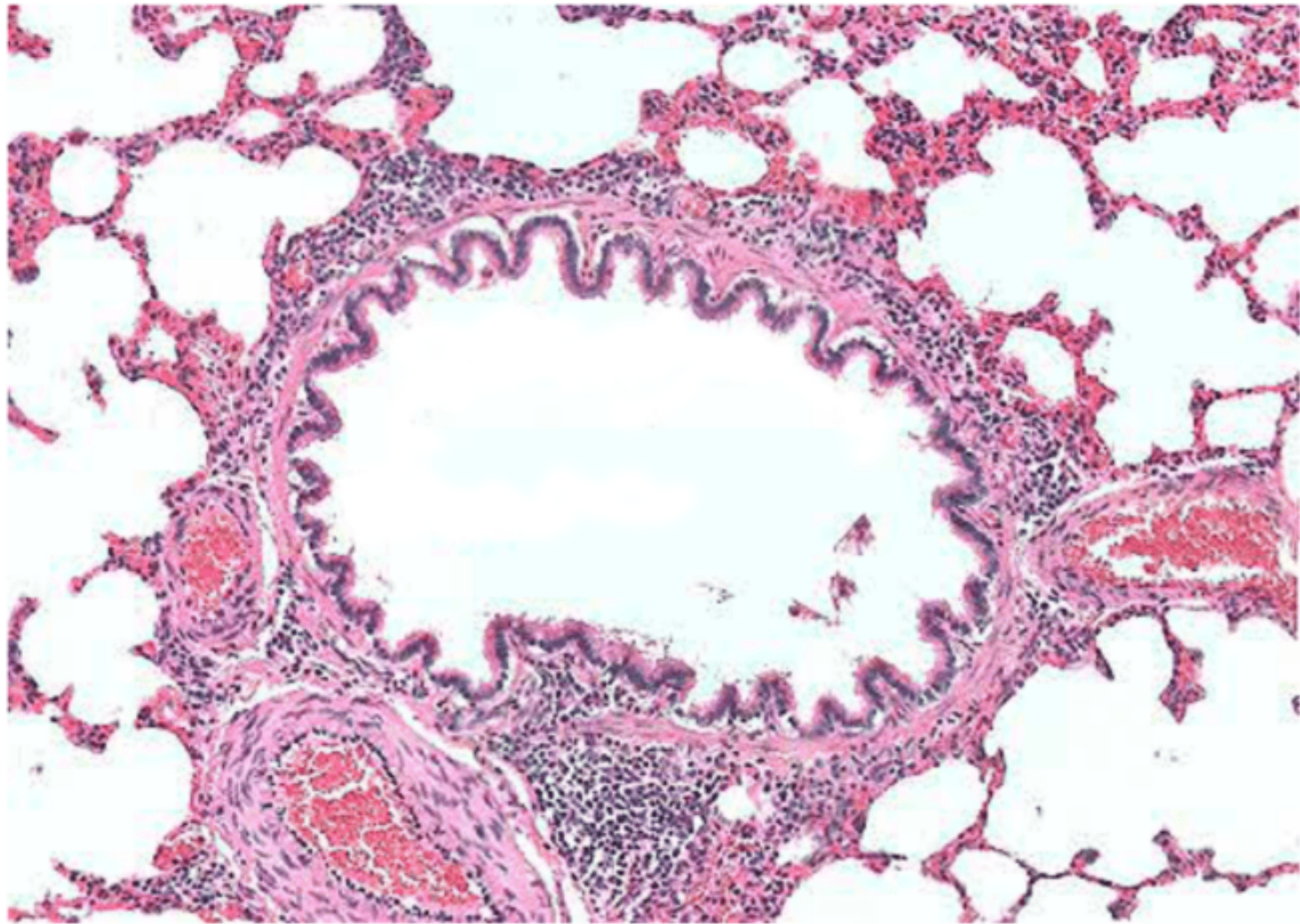


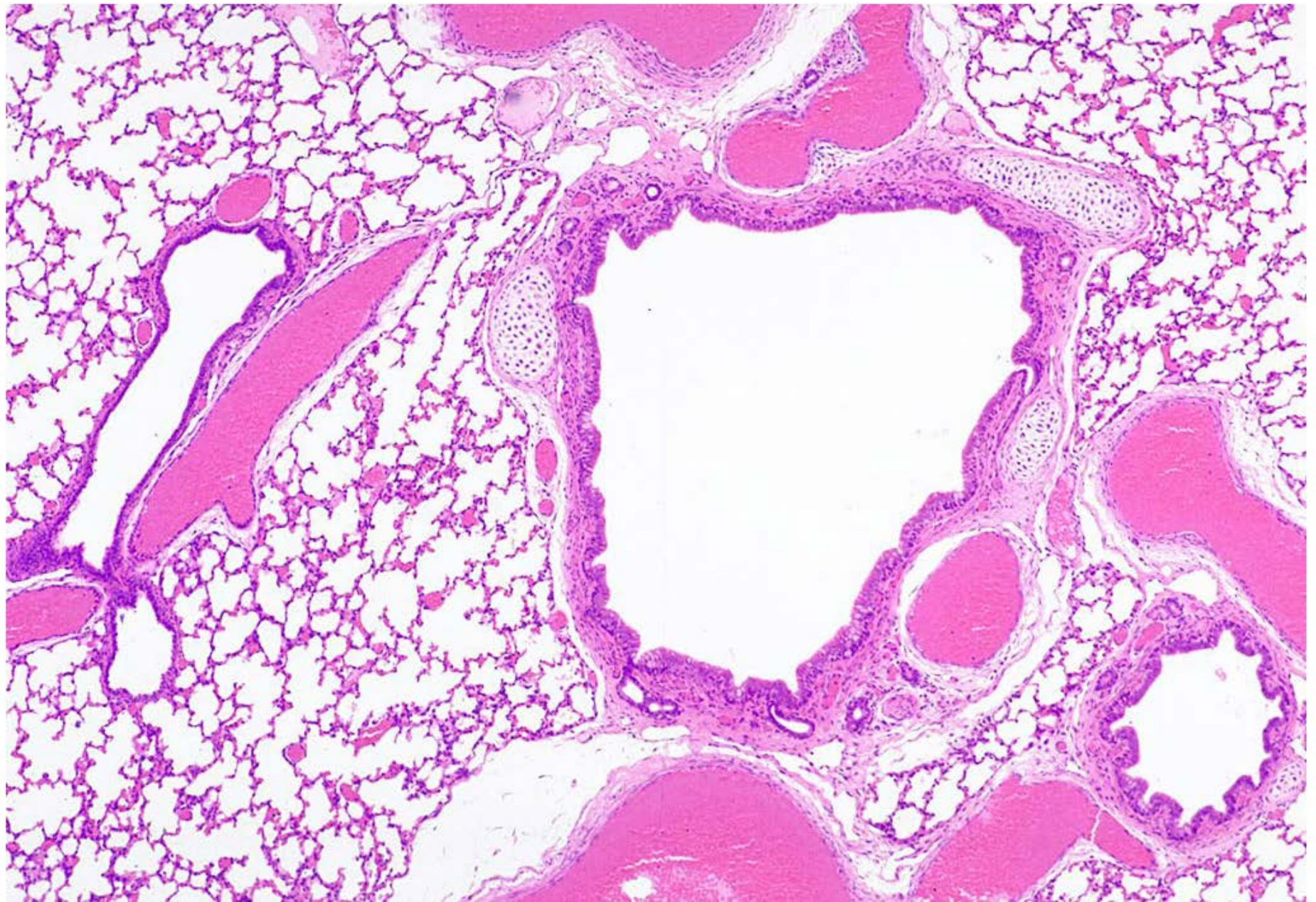








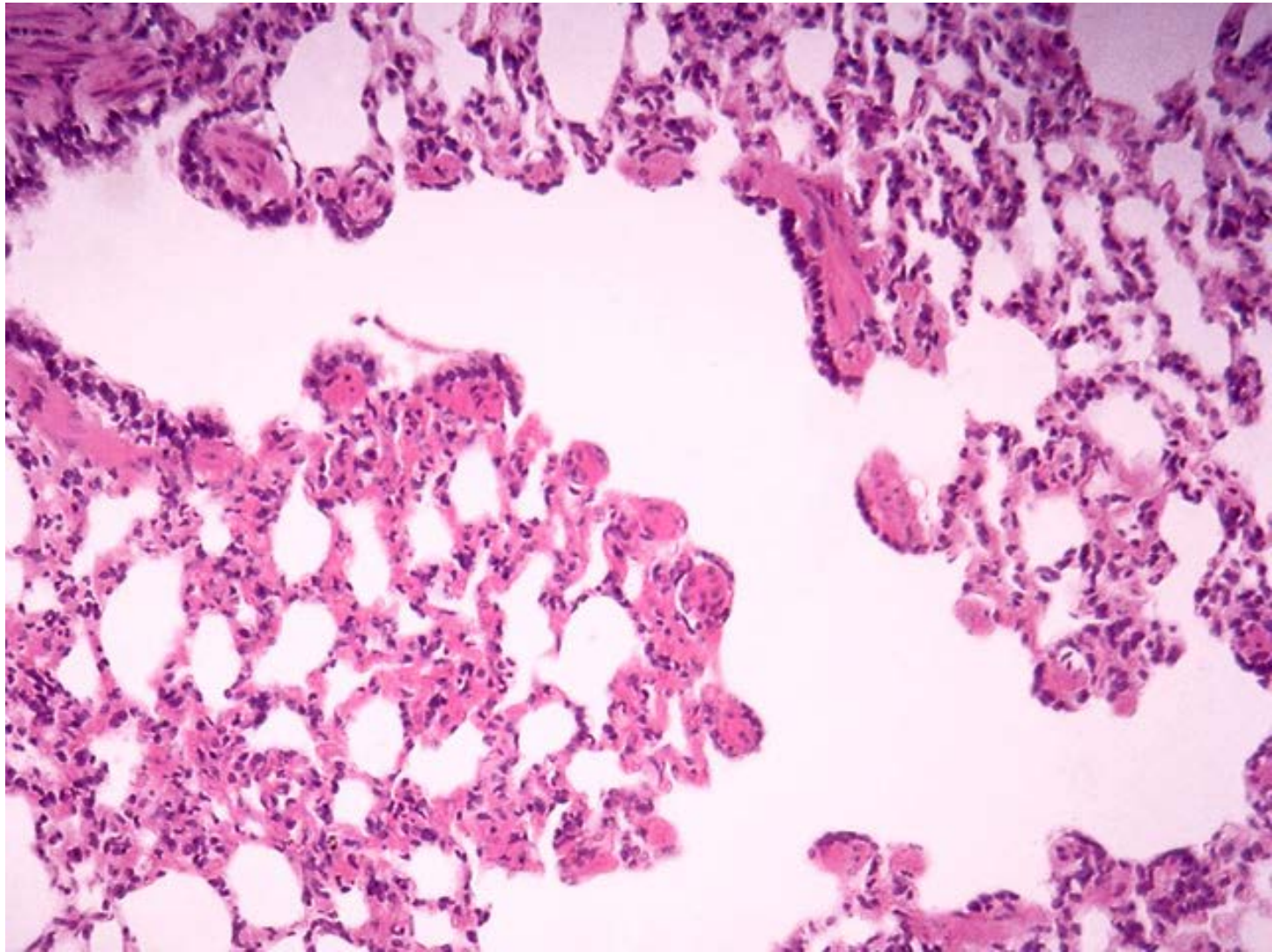


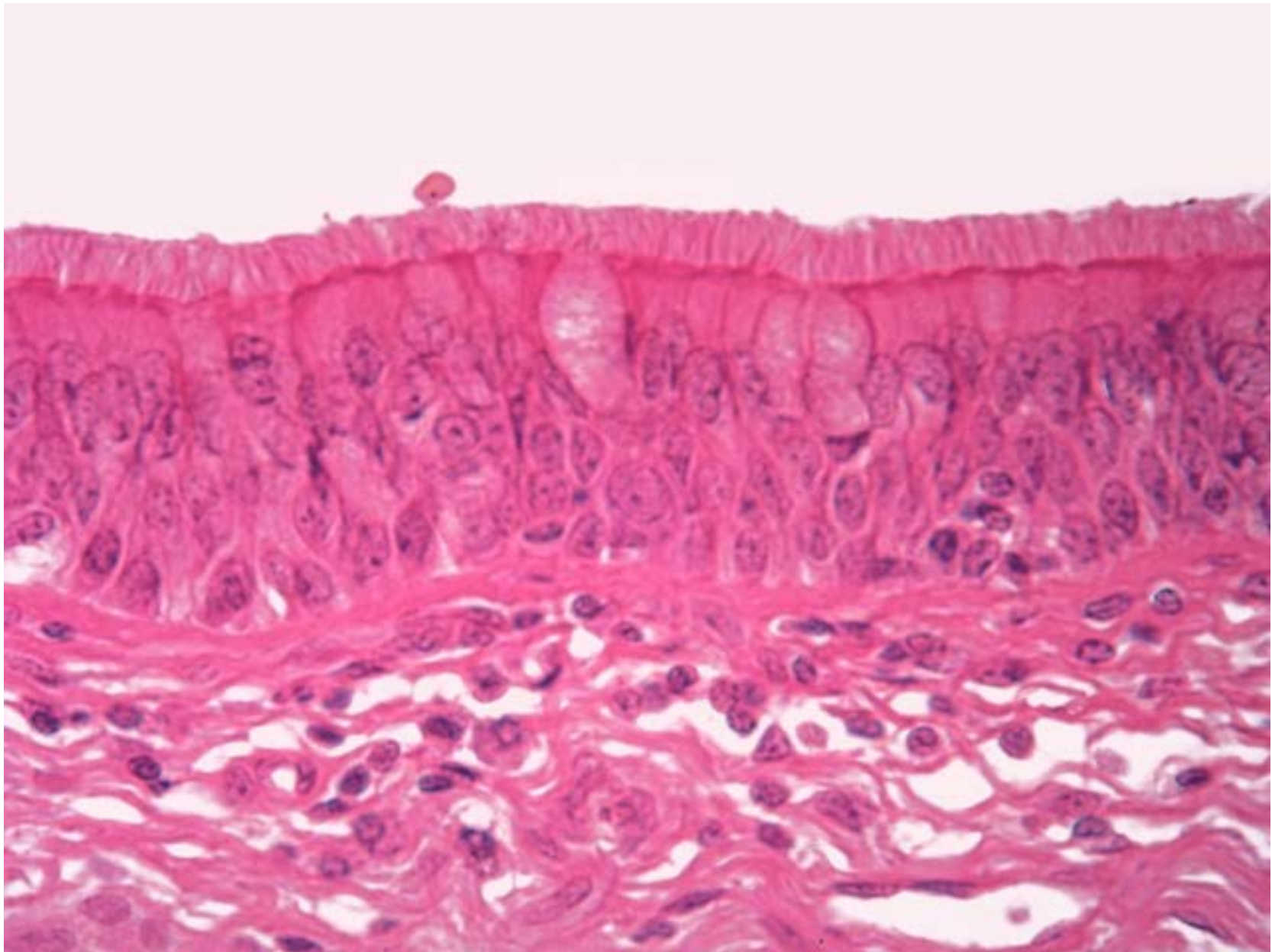


Website with interactive labels:

[http://medcell.med.yale.edu/histology/respiratory\\_system\\_lab/intrapulmonary\\_air\\_conduits.php](http://medcell.med.yale.edu/histology/respiratory_system_lab/intrapulmonary_air_conduits.php)







Website with interactive labels:

<https://medpics.ucsd.edu/index.cfm?curpage=image&course=hist&mode=browse&lesson=45&img=863>

Respiratory virtual microscope:

[http://aperio.duhs.duke.edu/UMichHistology/Respiratory/130\\_HISTO\\_20X.svs/view.apml?](http://aperio.duhs.duke.edu/UMichHistology/Respiratory/130_HISTO_20X.svs/view.apml?)

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**\*\*Make sure Adobe Flash Player is enabled for this website.**