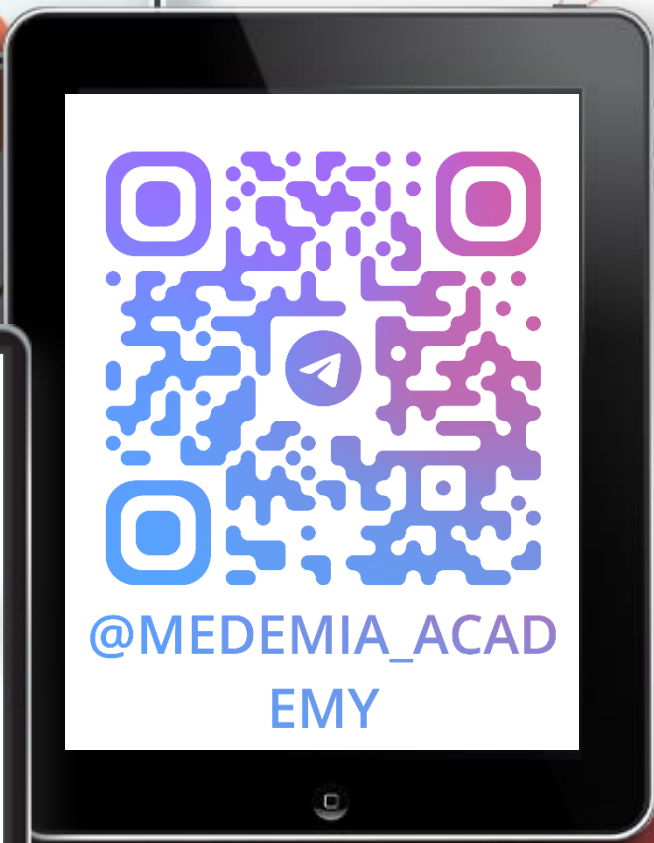
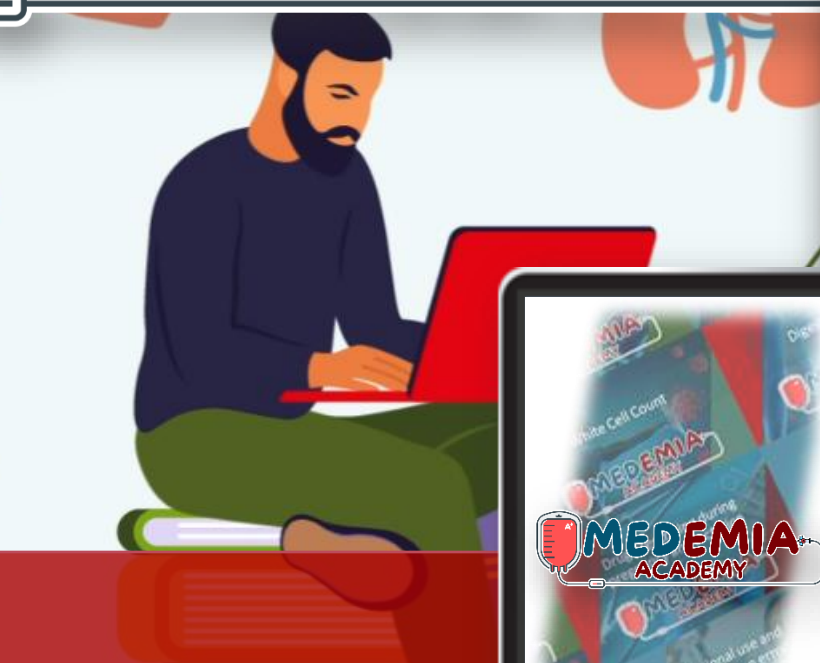


# Histology Lab

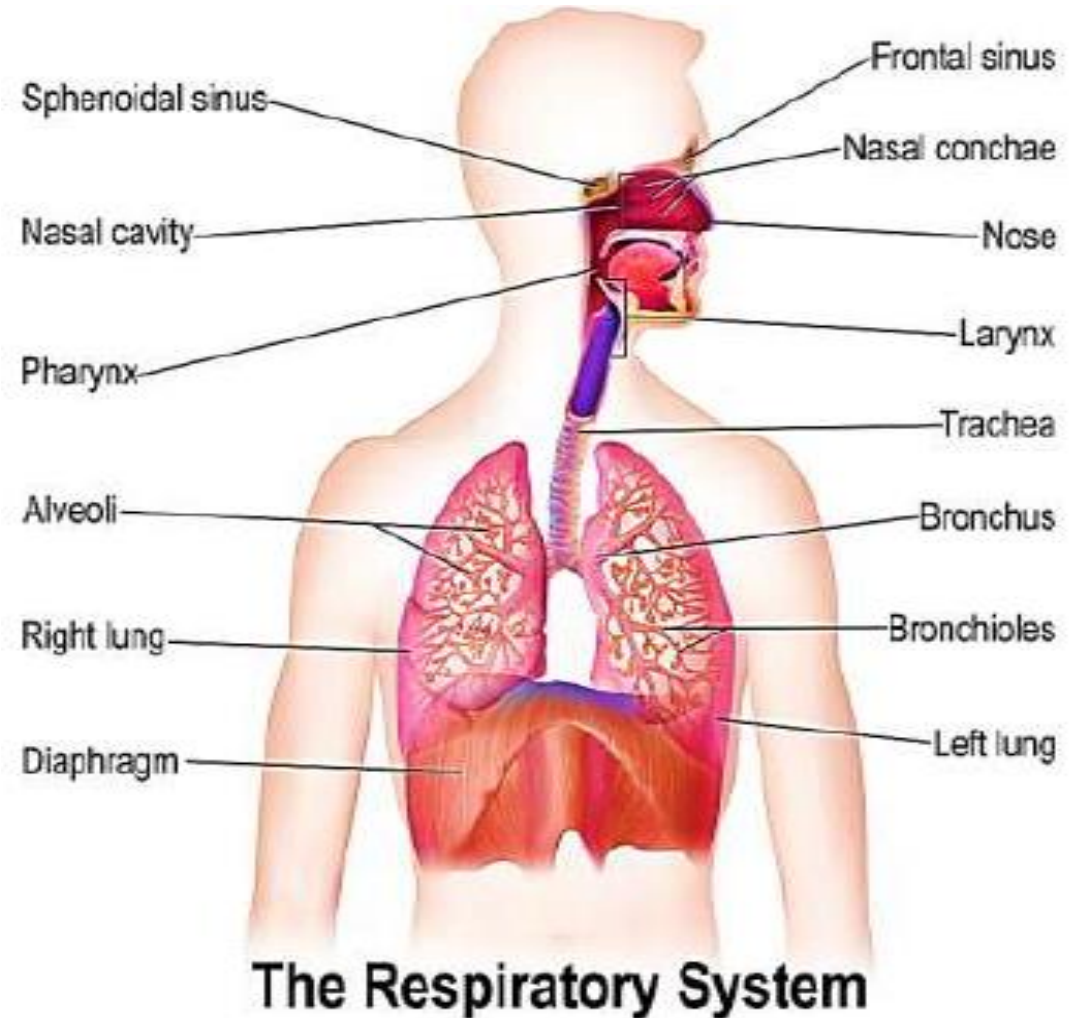


# MEDEmia ACADEMY

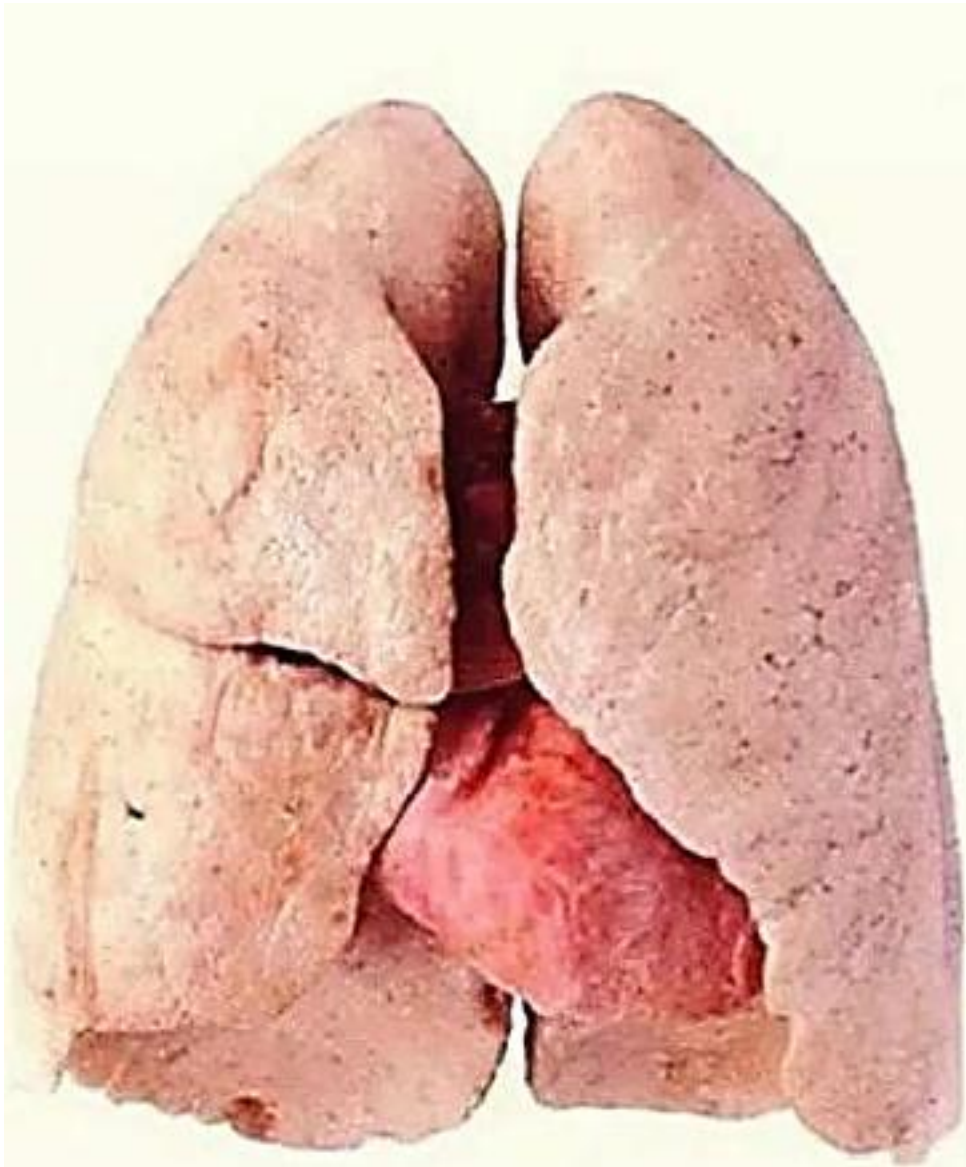


# Microscopic slides in the Lab

- ❖ Trachea
- ❖ Epiglottis
- ❖ Respiratory epithelium
- ❖ Olfactory epithelium
- ❖ Lung
  - + bronchus
  - + bronchiole
- ❖ Lung







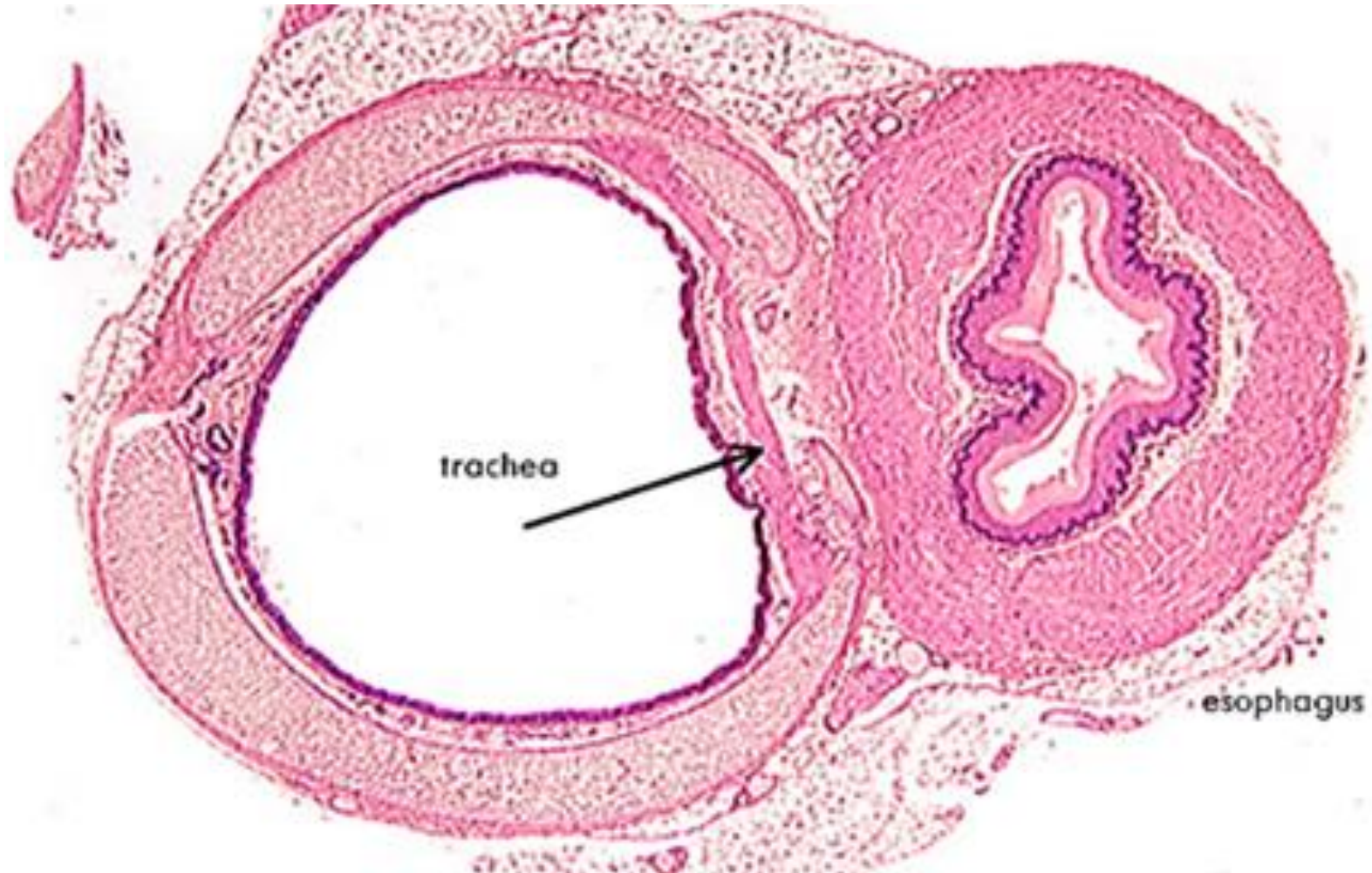
Healthy Lung



Smoker's Lung

# Trachea and Esophagus

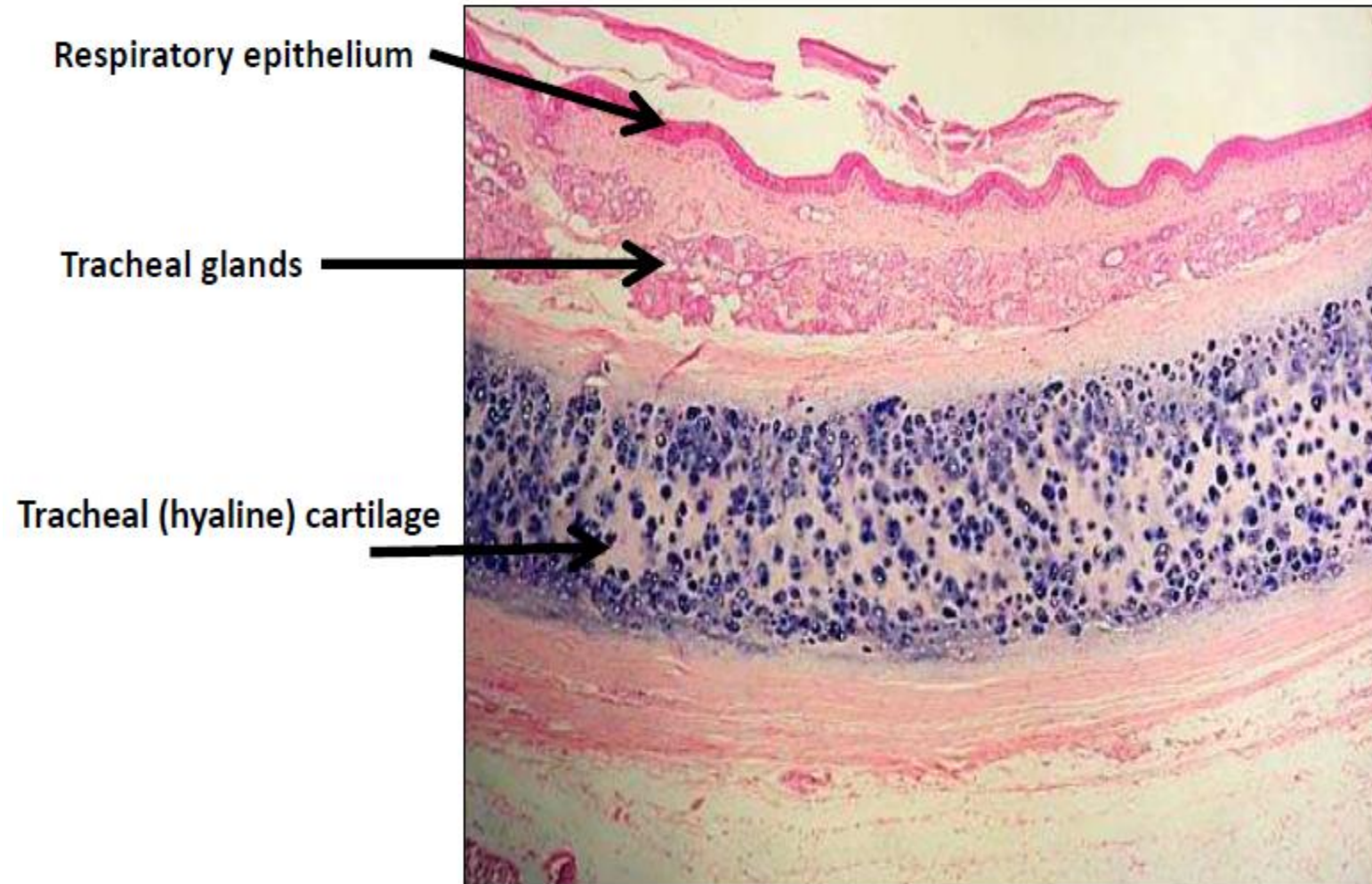
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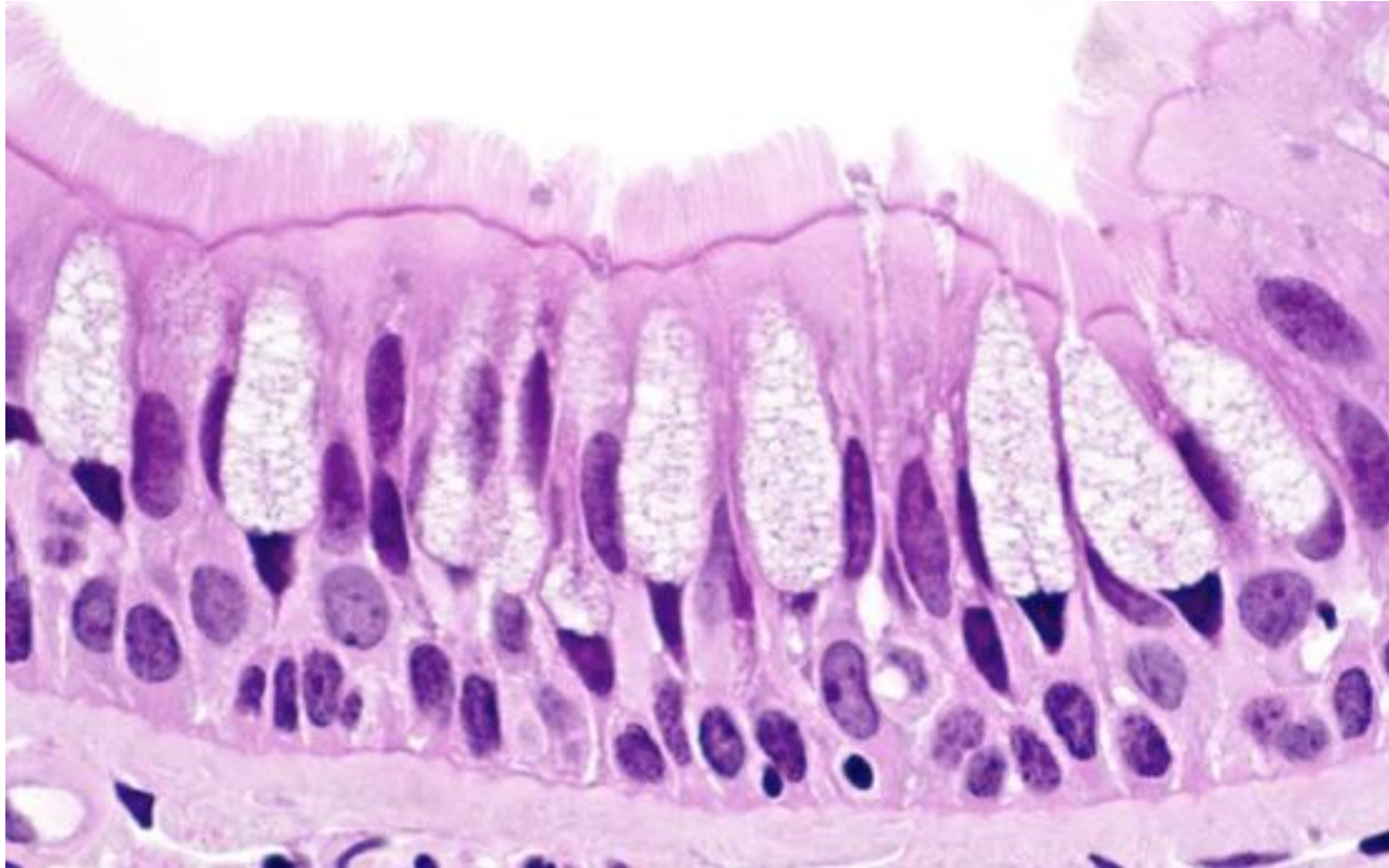
# Cross section in Trachea

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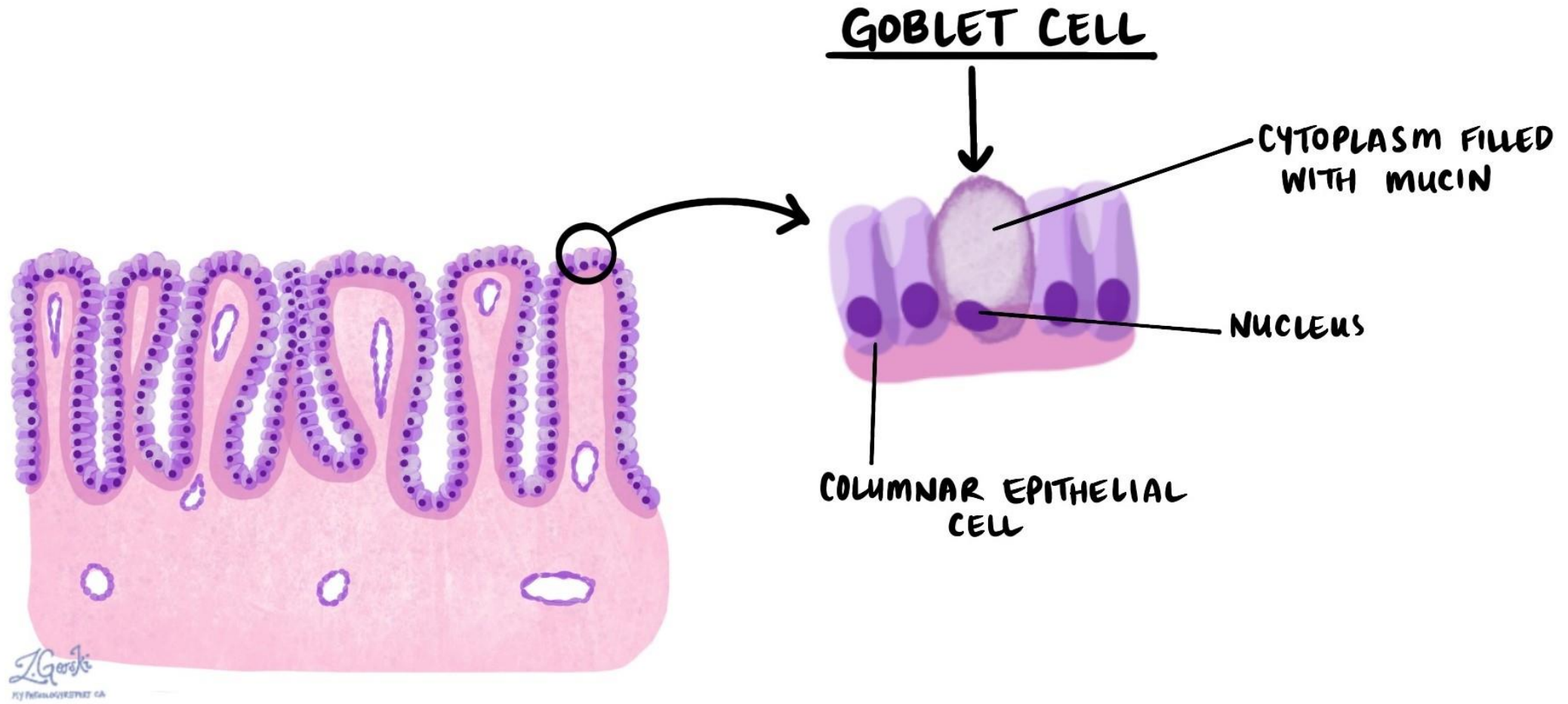
# Respiratory Epithelium

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Pseudostratified columnar ciliated with goblet cells

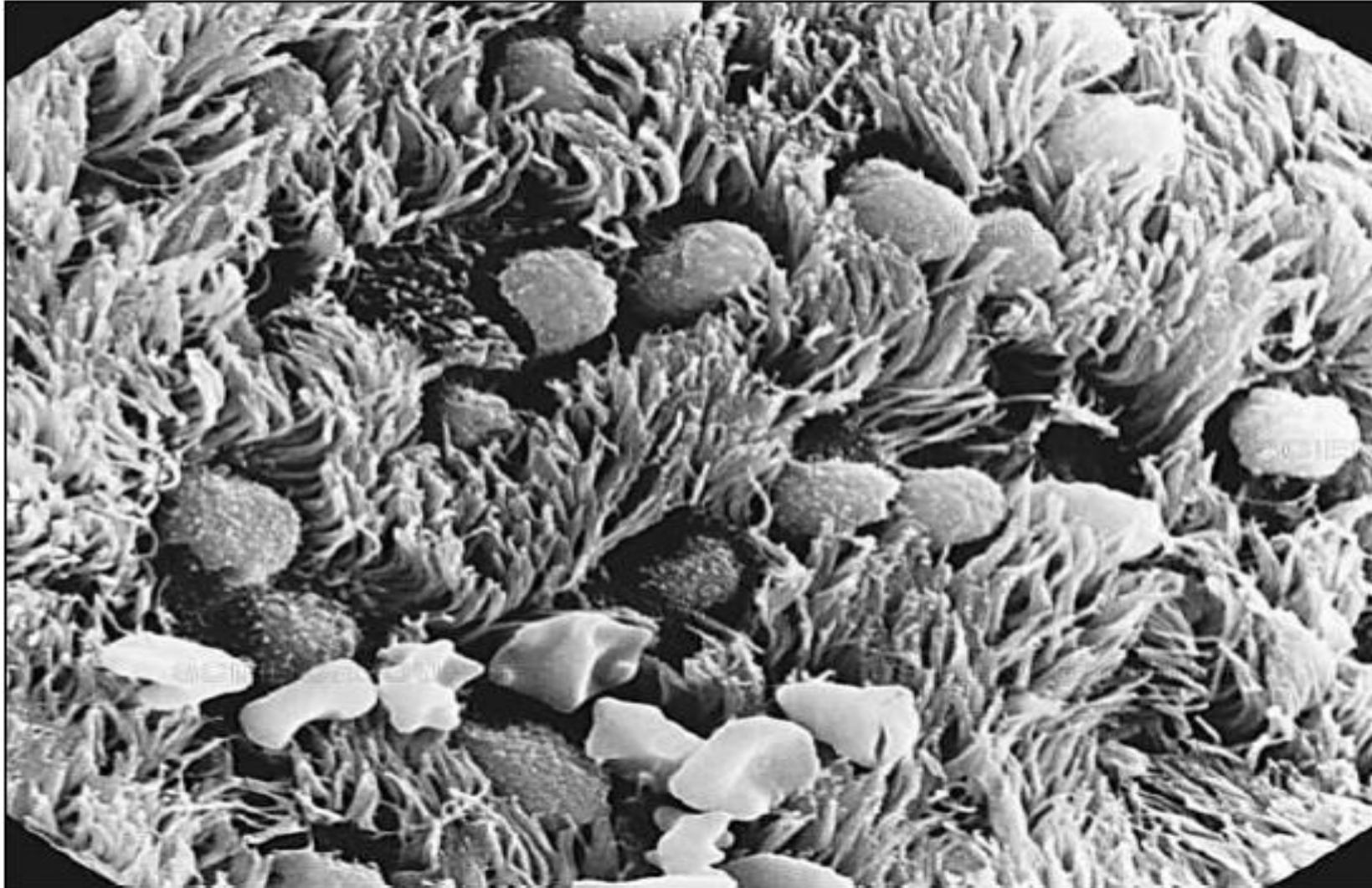
# Respiratory Epithelium





# SEM of Respiratory Epithelium

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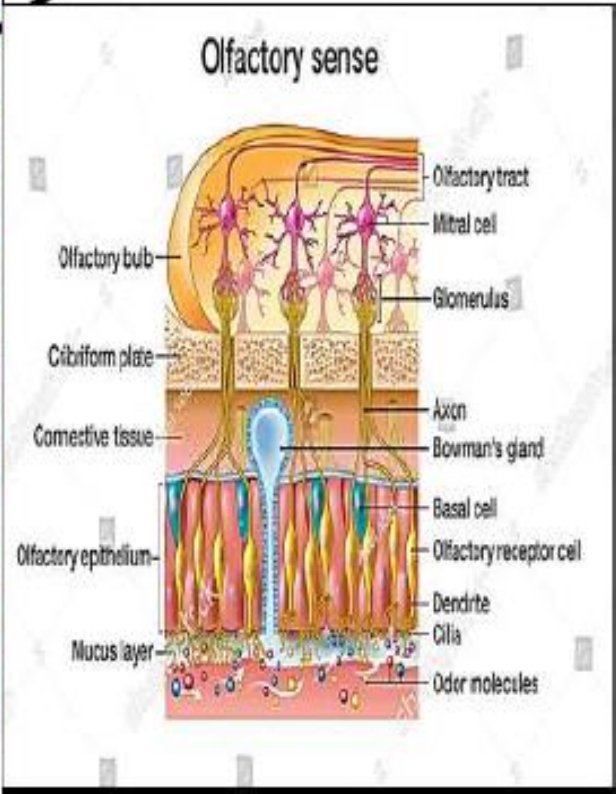
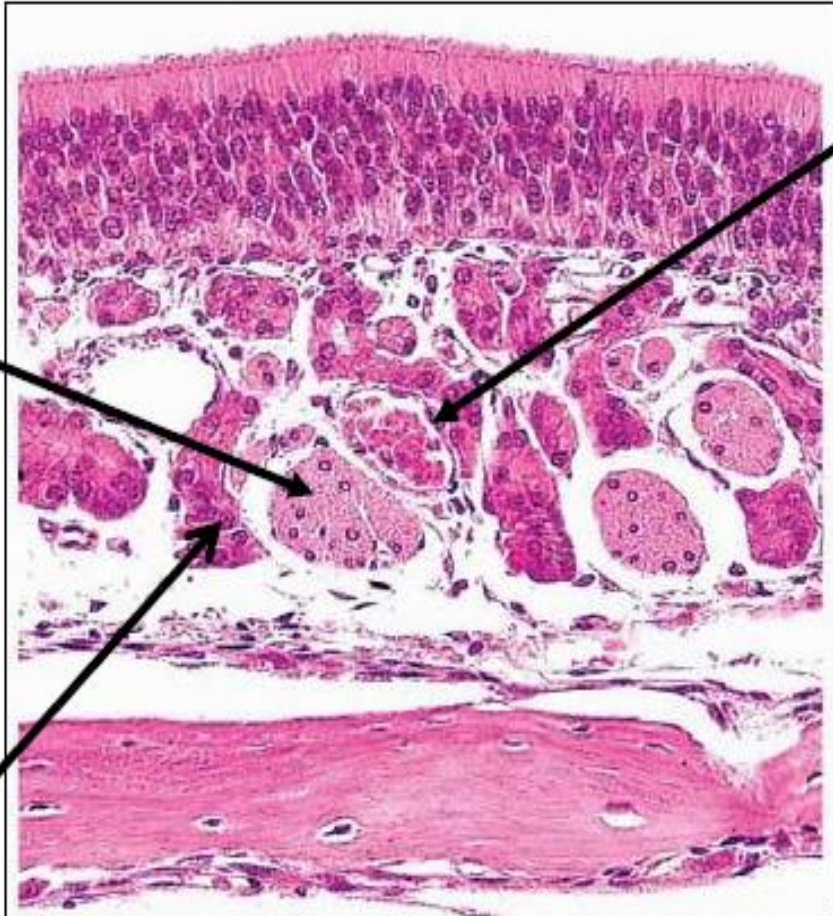


# Olfactory Epithelium

**Olfactory Filia:**  
Bundles of olfactory neurons axons, unmyelinated bundles.  
20 in # on each side of the nasal cavity .  
Form the olfactory nerve

**Venous plexus**

**Bowman's gland**



**Olfactory sense**

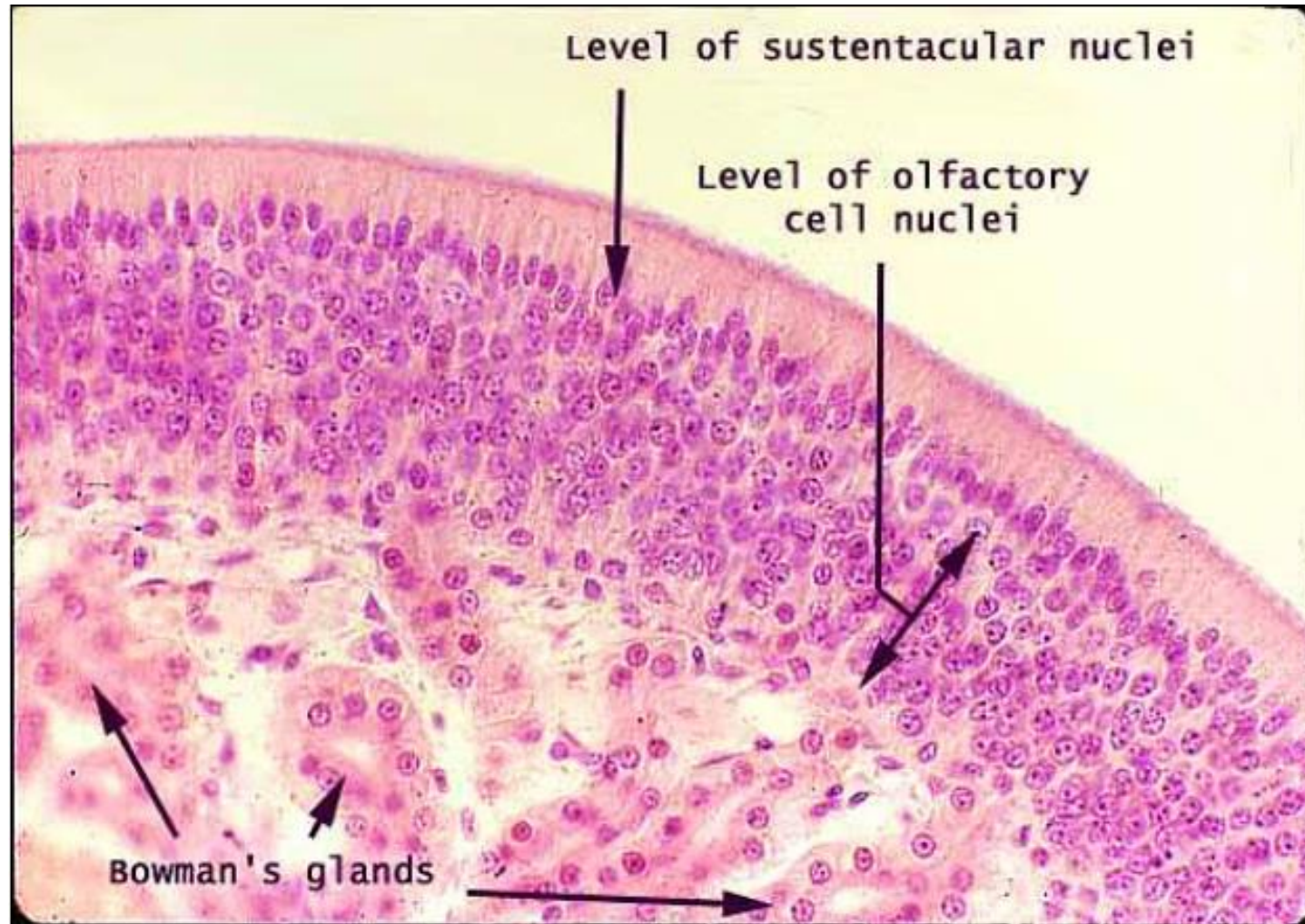
- Olfactory tract
- Mitral cell
- Glomerulus
- Olfactory bulb
- Ciliary plate
- Connective tissue
- Bowman's gland
- Axon
- Basal cell
- Olfactory epithelium
- Olfactory receptor cell
- Dendrite
- Cilia
- Mucus layer
- Odor molecules

Pseudostratified columnar with chemoreceptors





# Olfactory Epithelium



# Bronchus

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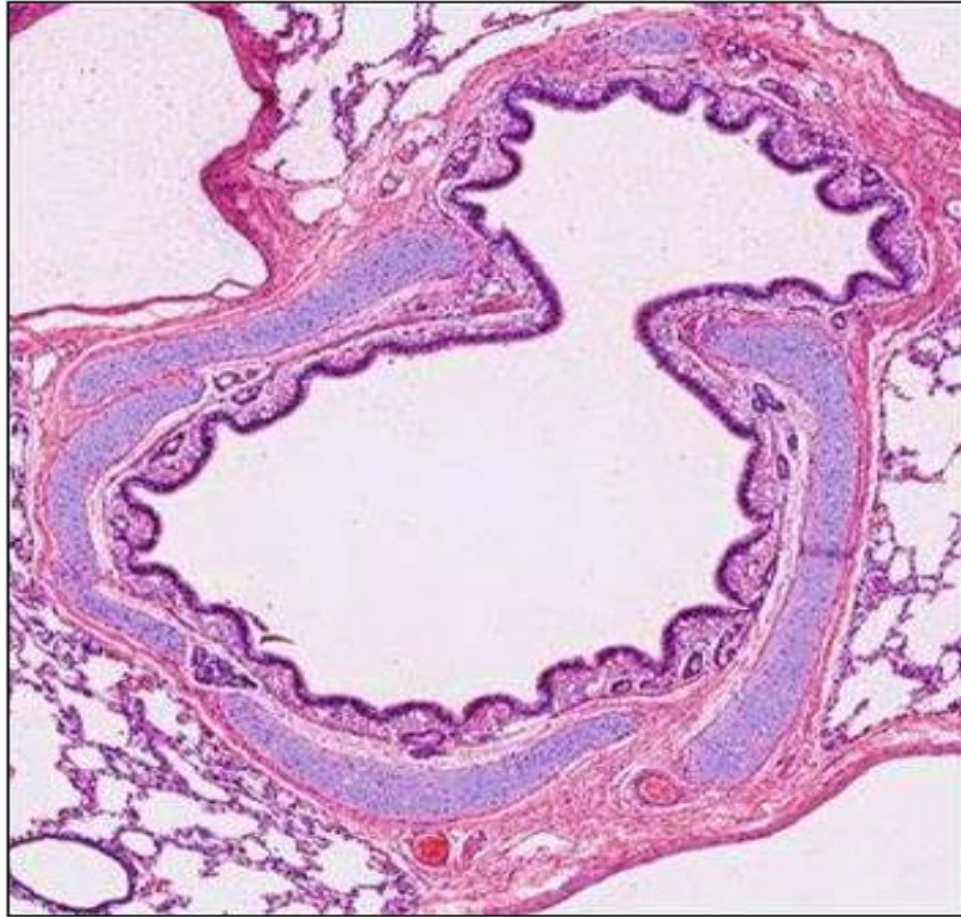
Cartilage plates



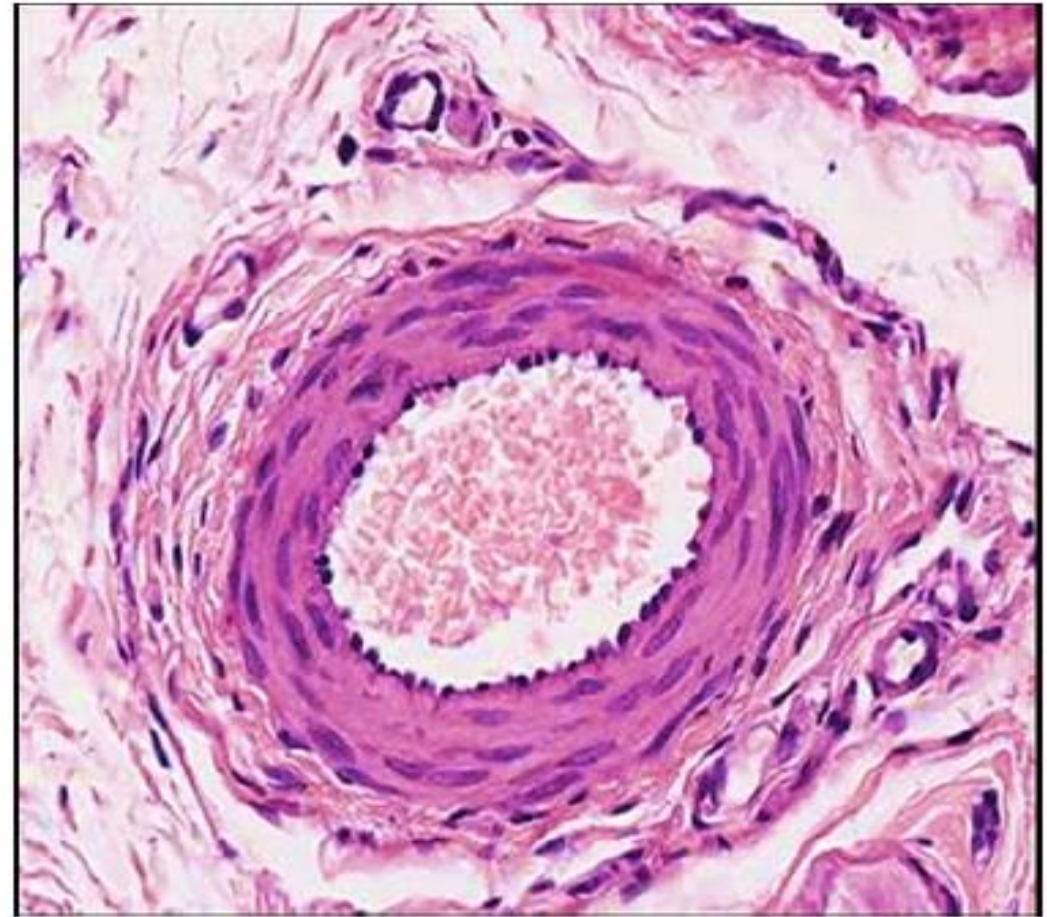


# Bronchus and blood vessel

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Bronchus

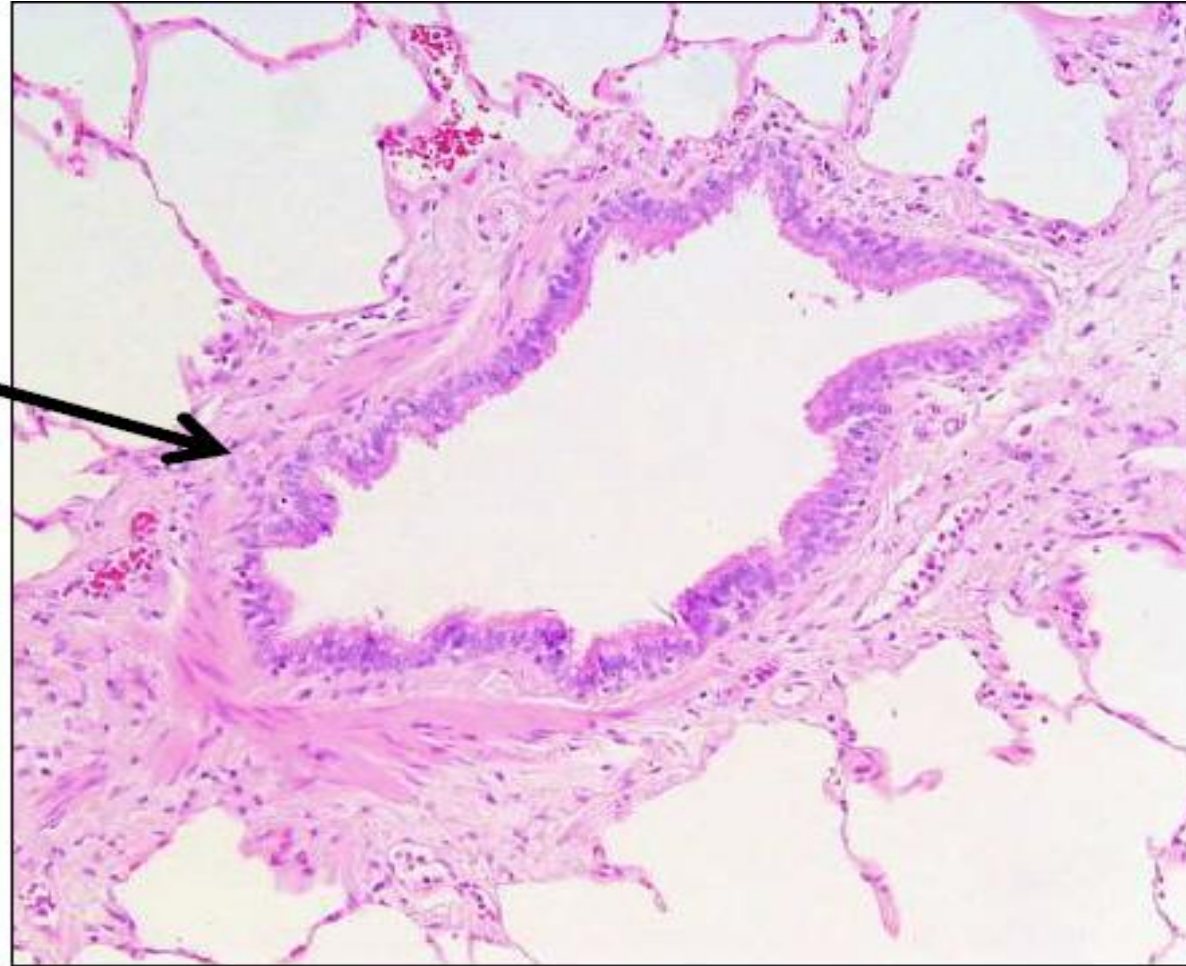


Blood vessel (Artery)

# Bronchiole

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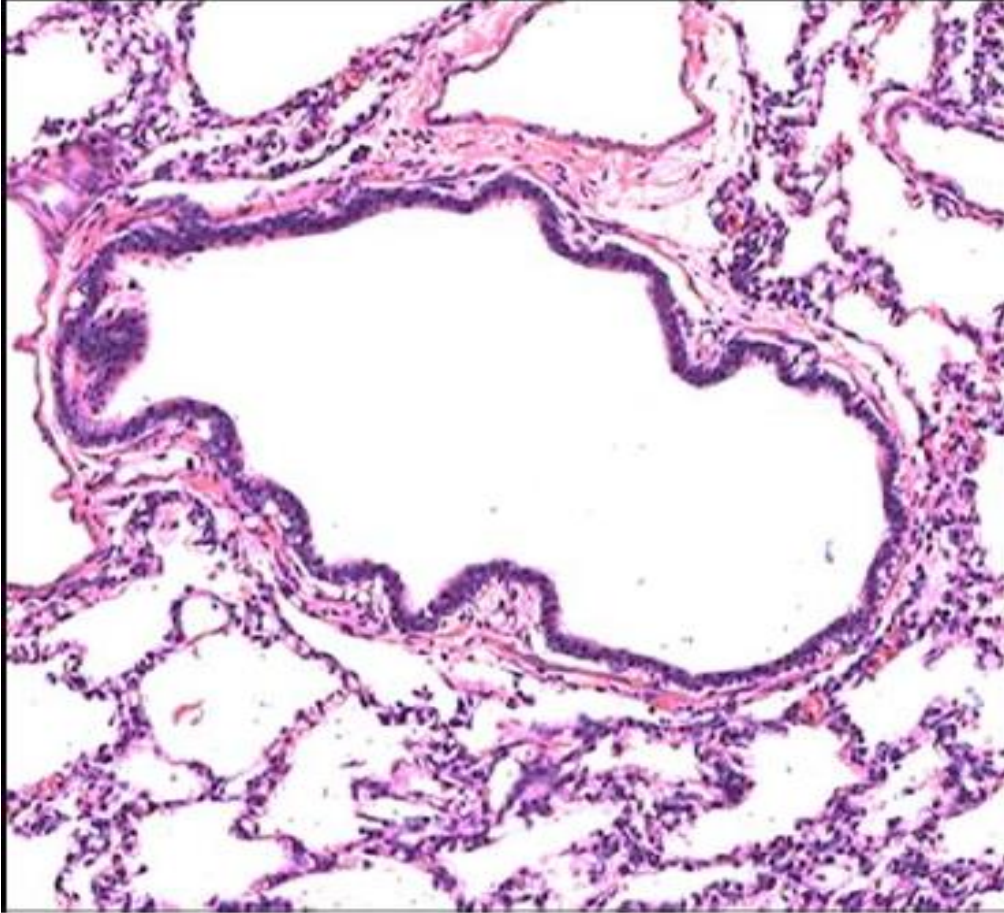
Layer of circularly  
arranged  
smooth muscle



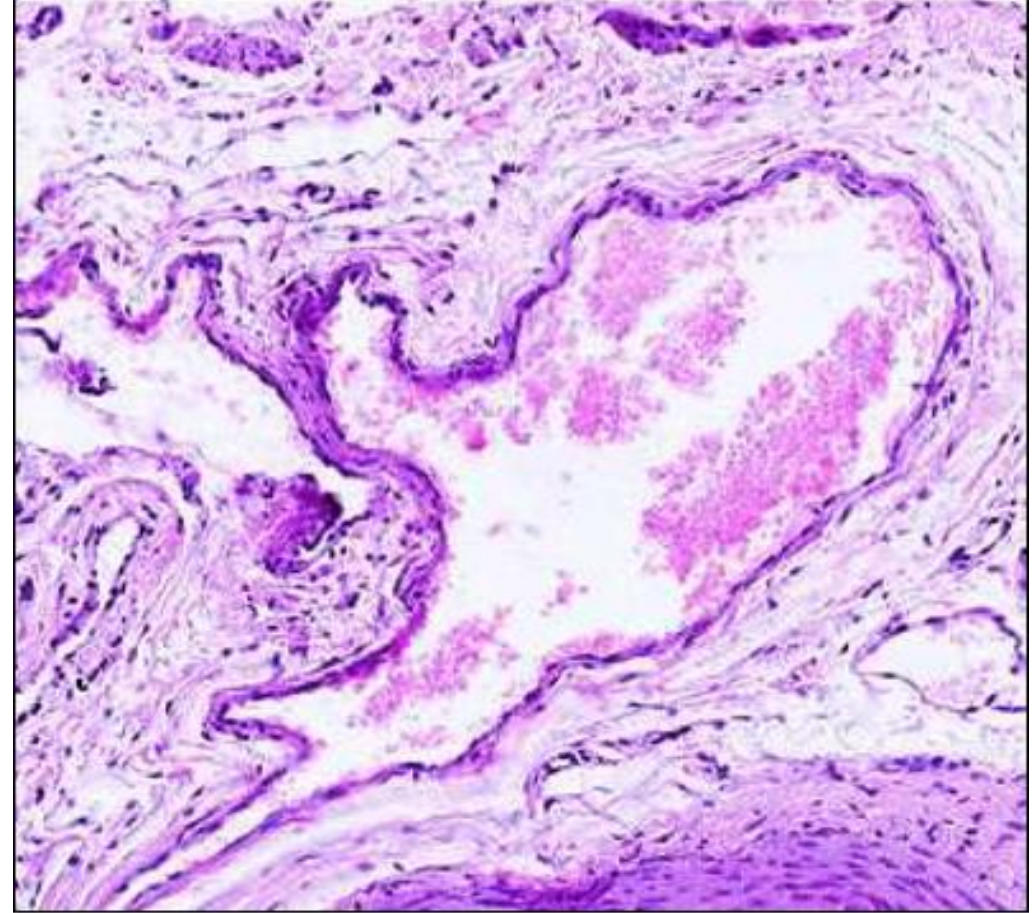


# Bronchiole and blood vessel

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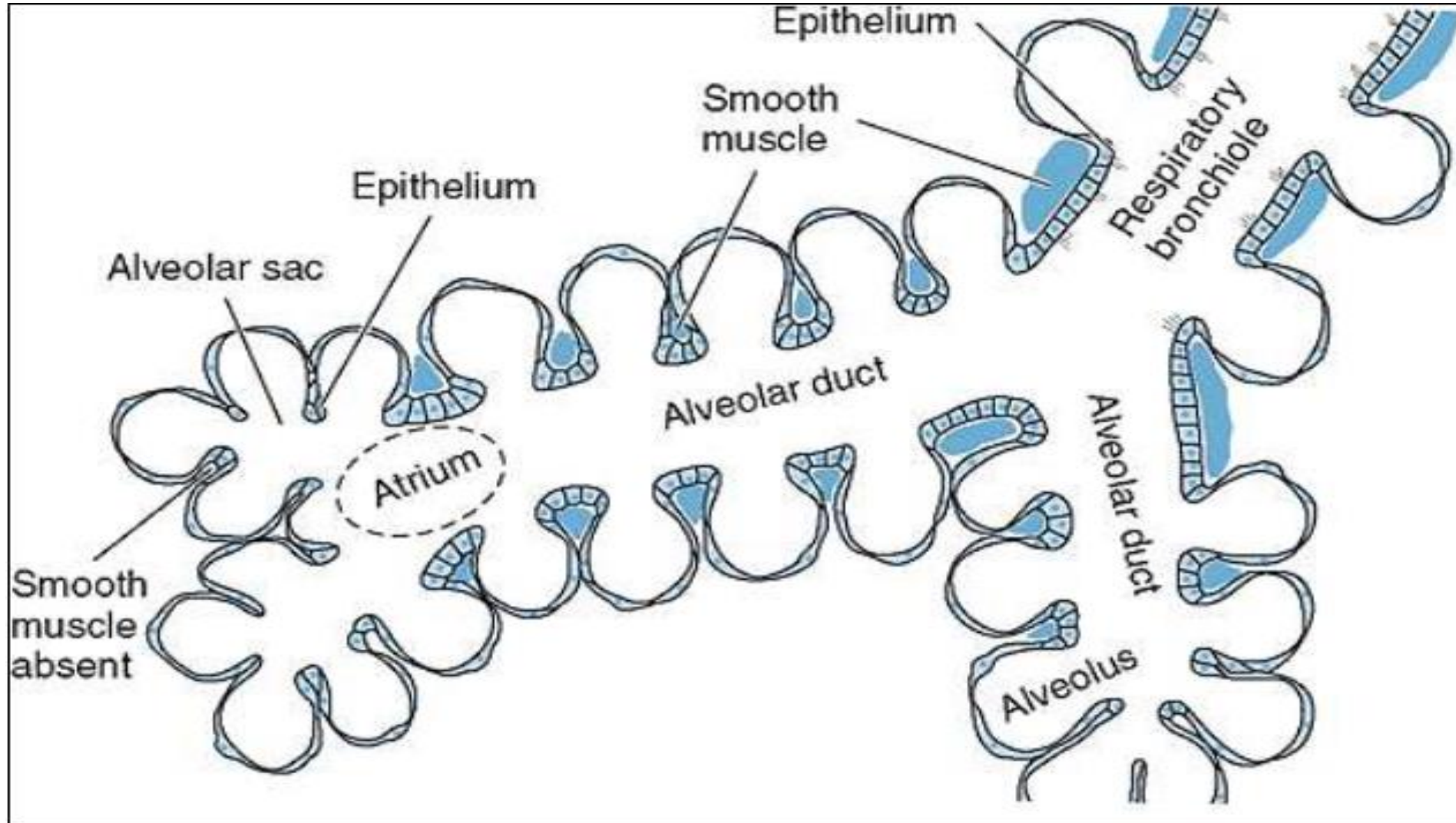


Bronchiole



Blood vessel (Vein)

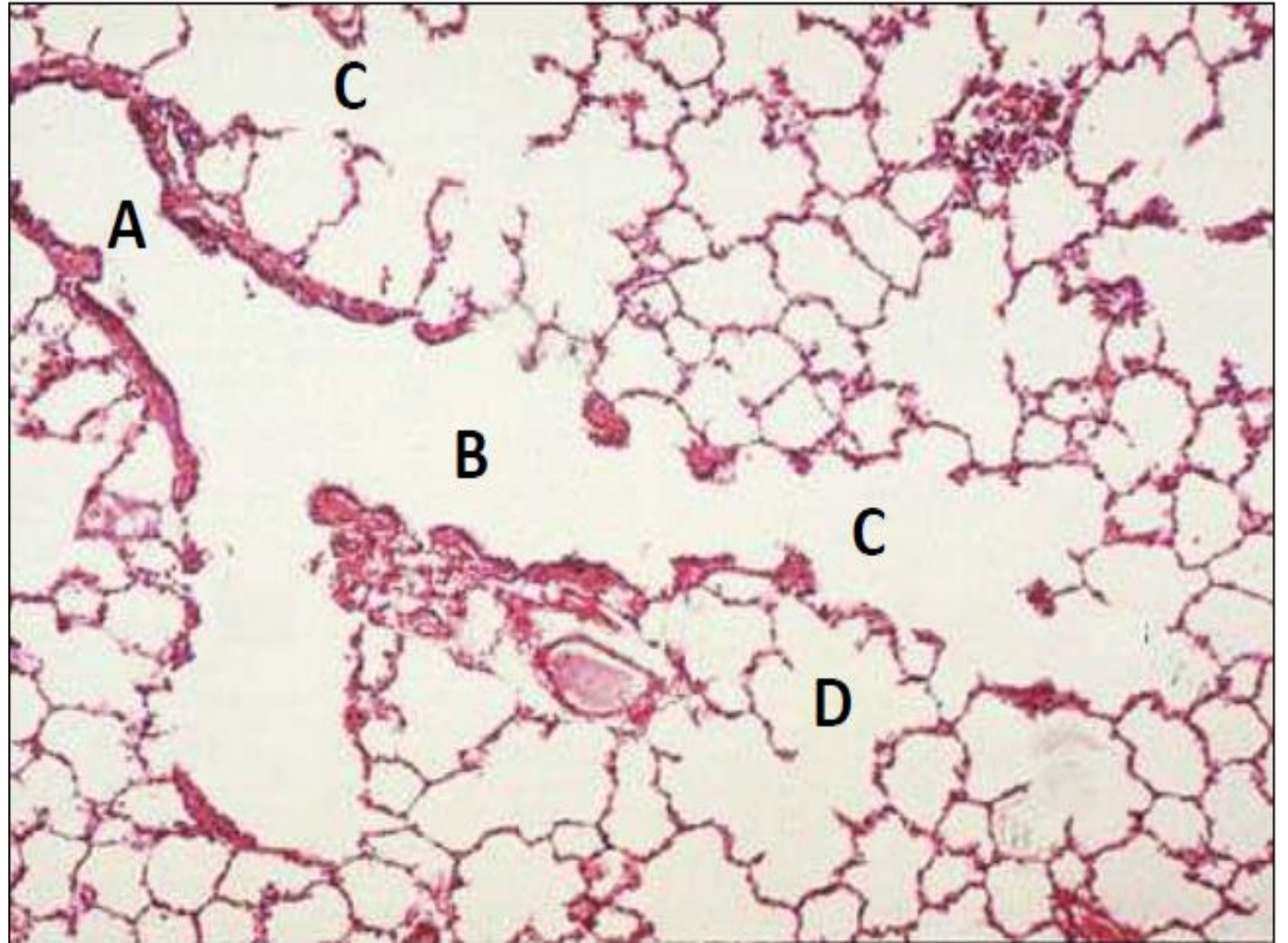
# Respiratory Portion





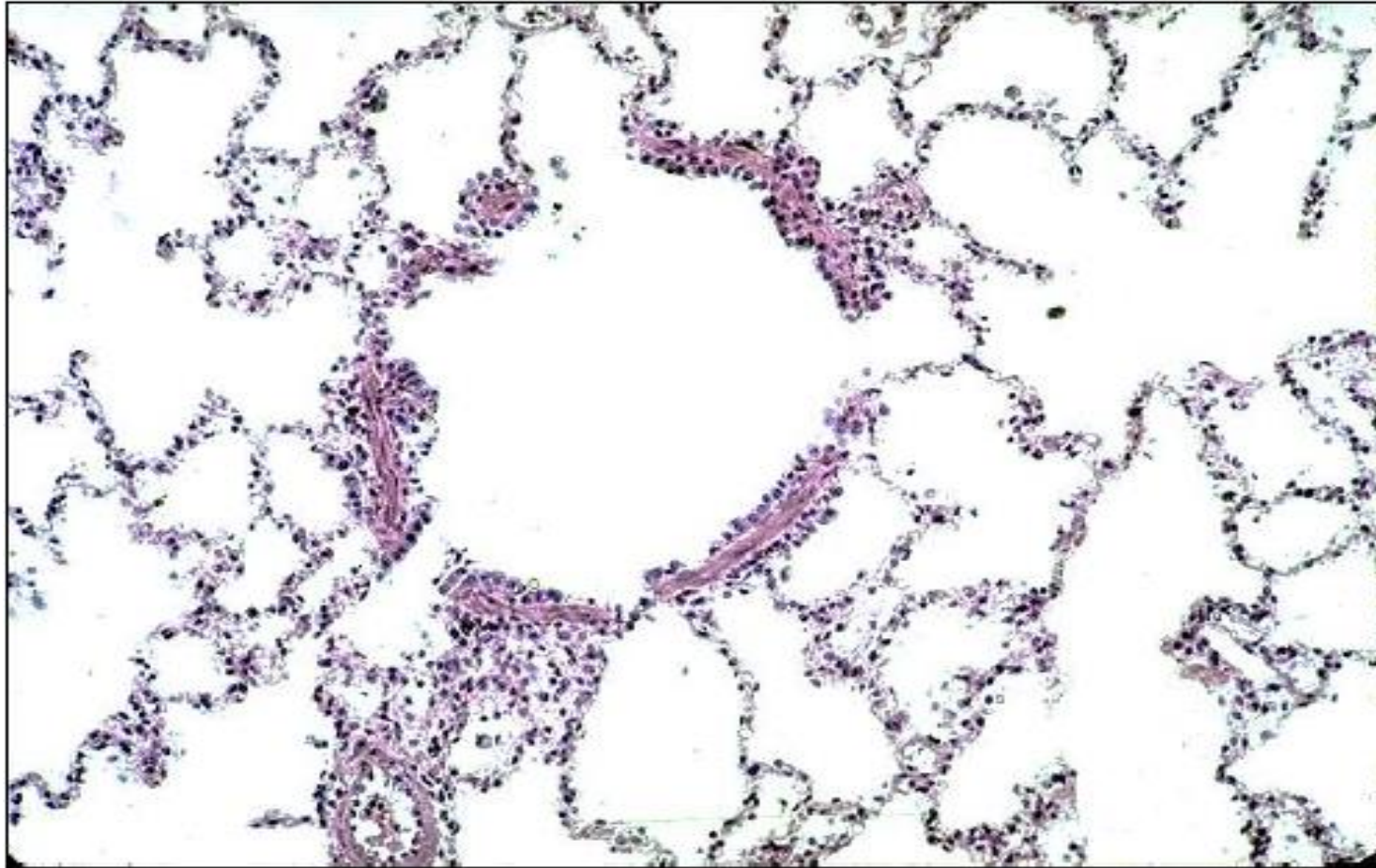
# Section in Lung

- A. Terminal bronchiole
- B. Respiratory bronchiole
- C. Alveolar duct
- D. Alveolar sac



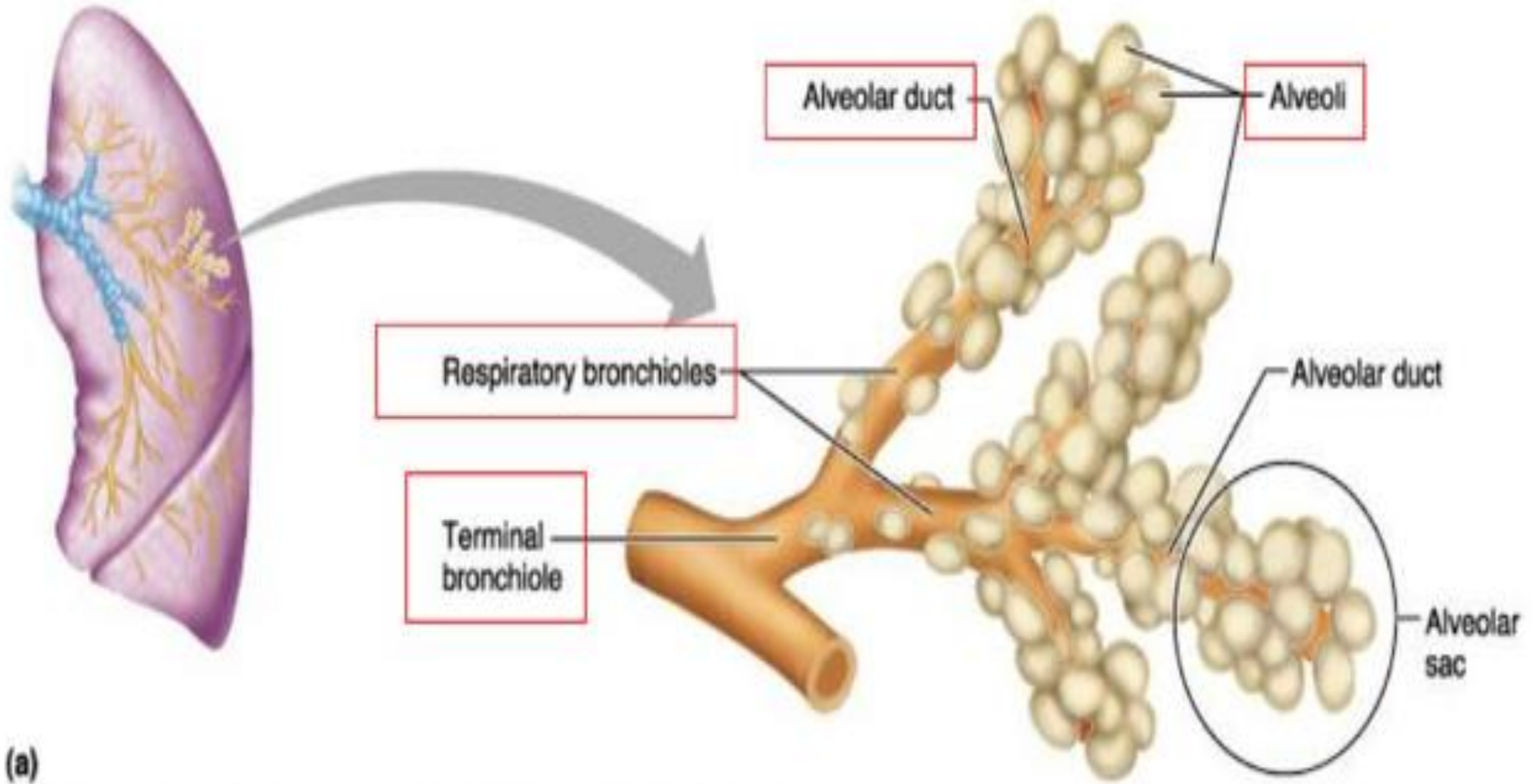
# Respiratory Bronchiole

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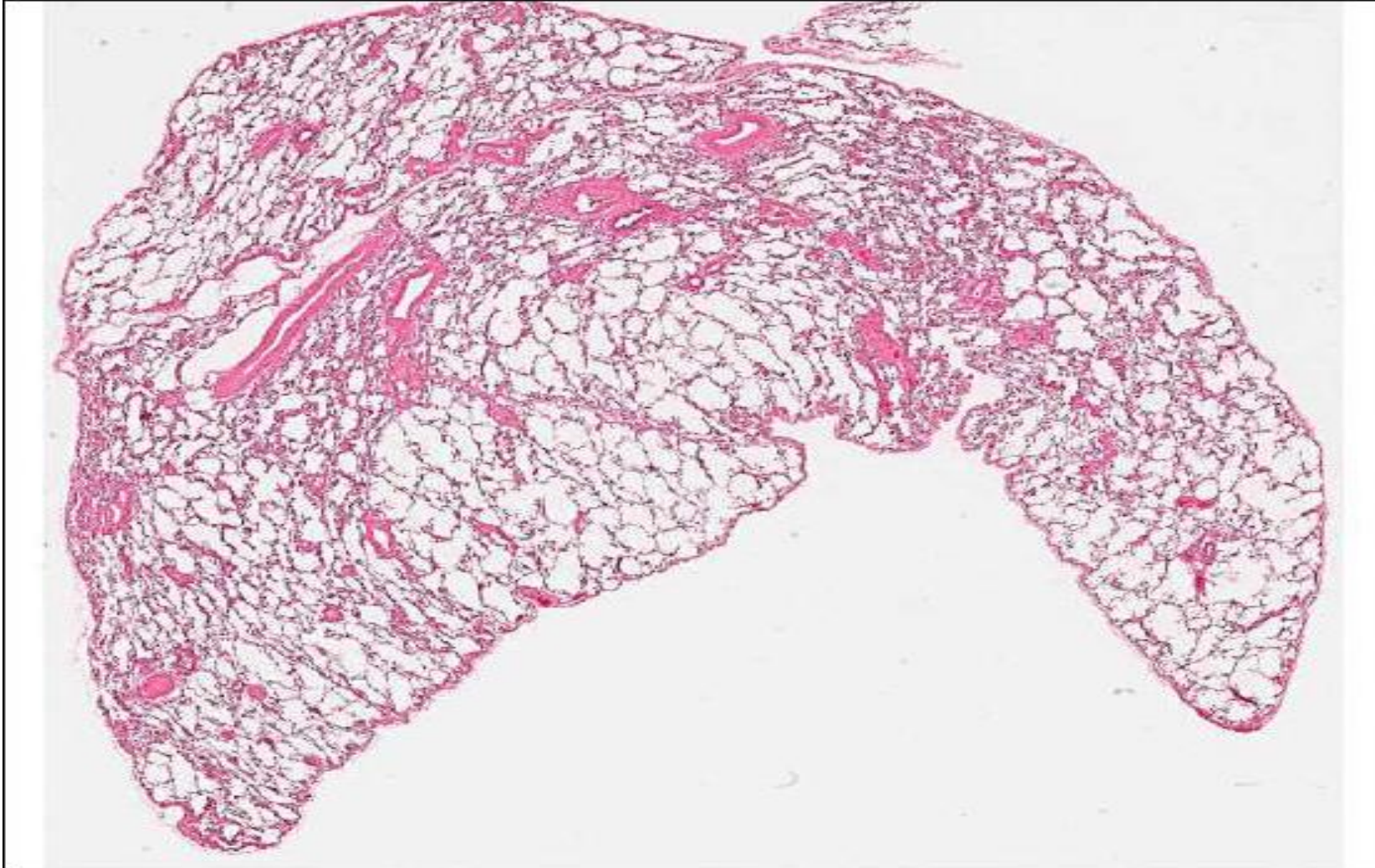
Simple cuboidal ciliated with Clara cells





# Lung

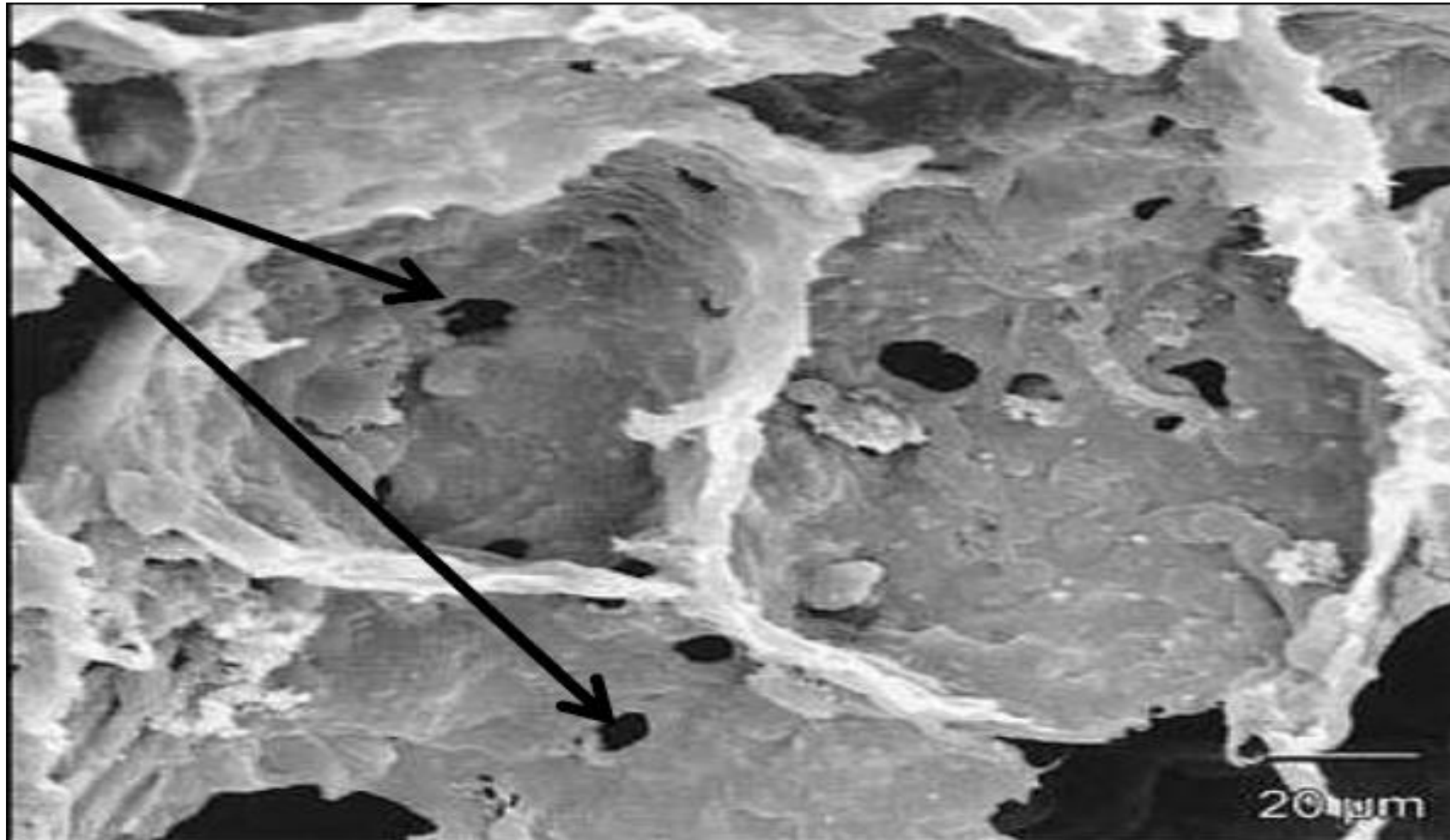
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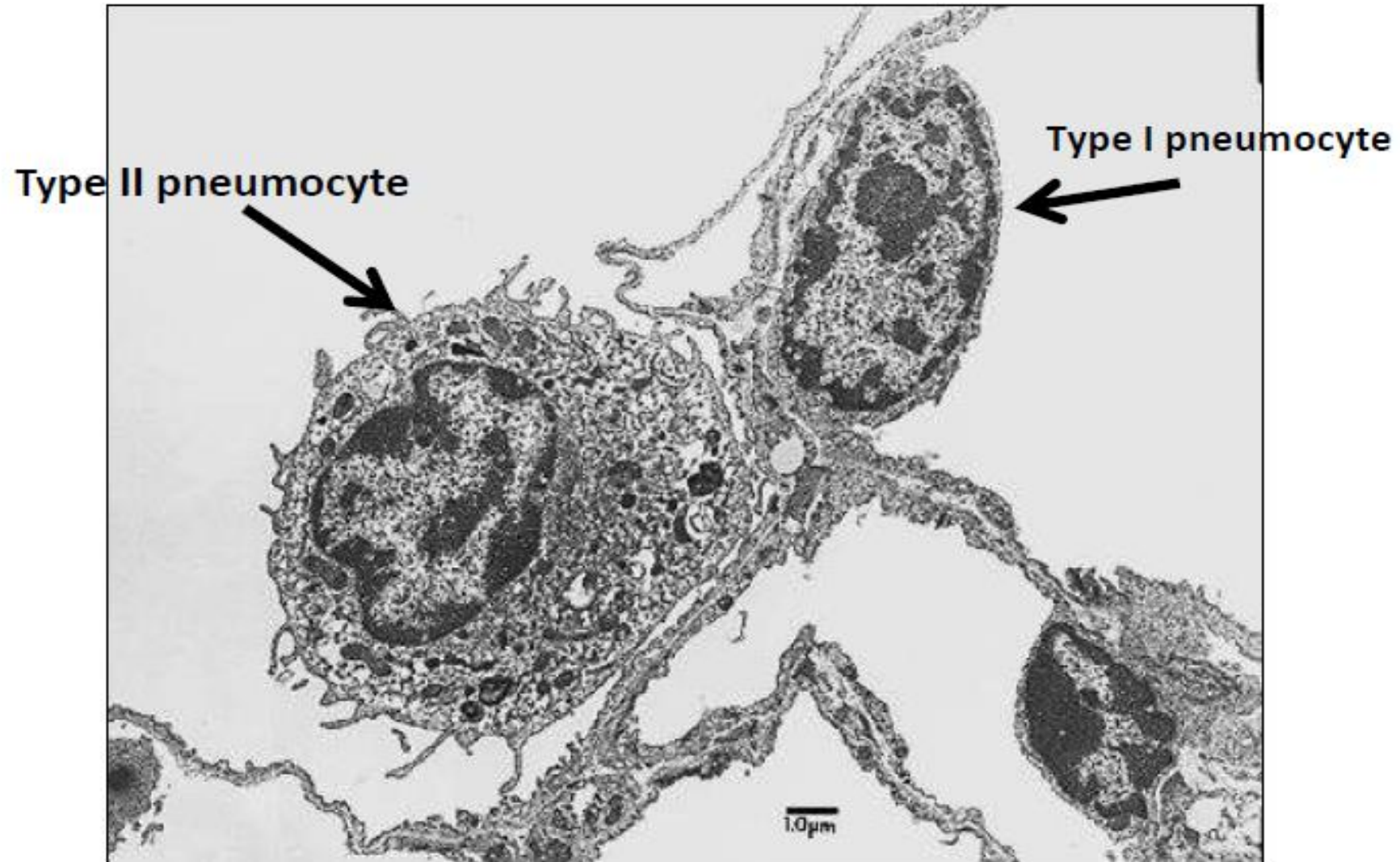
# Pores of Kohn (E/M)

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# Type I & type II pneumocyte (E/M)

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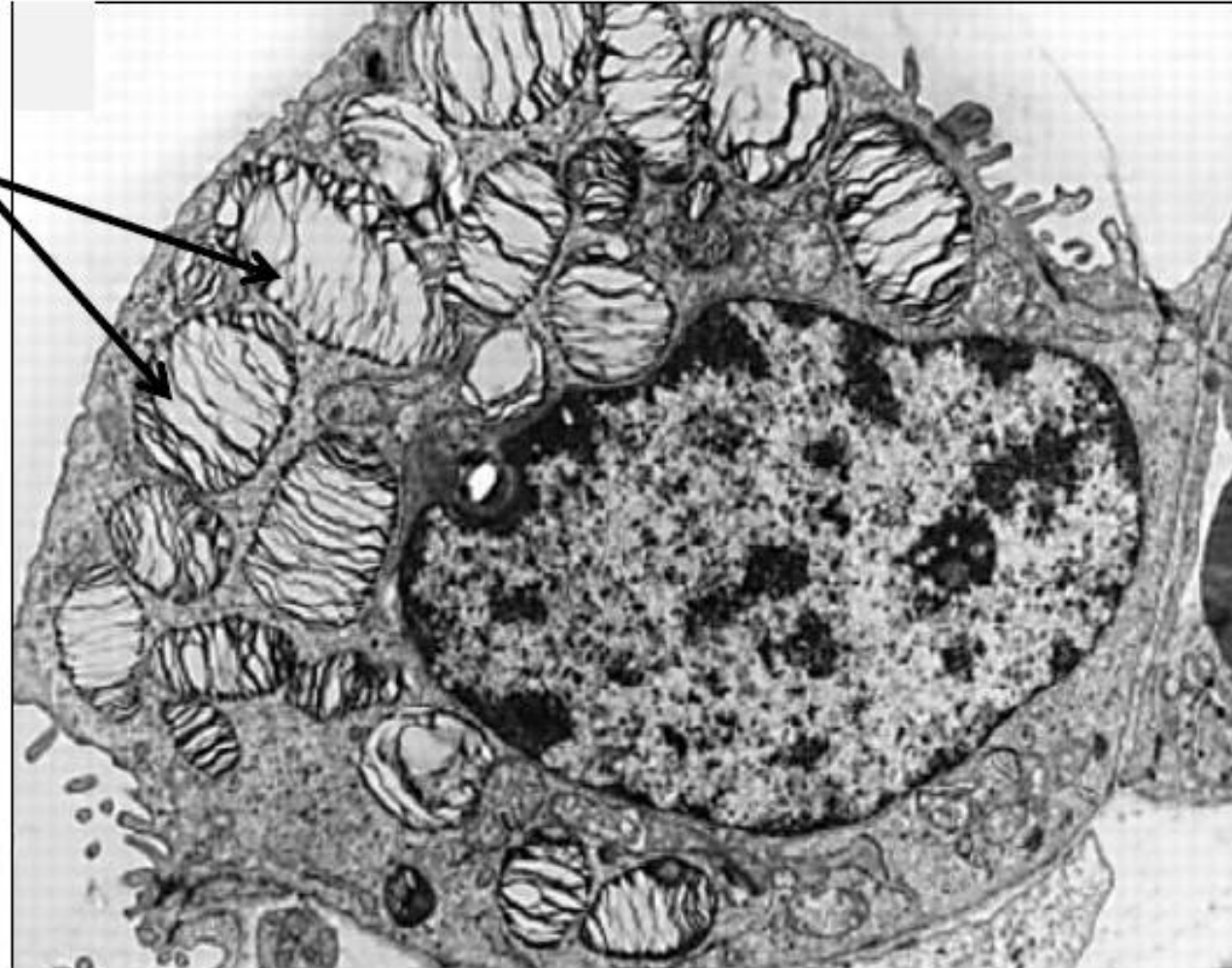




# Type II pneumocyte (E/M)

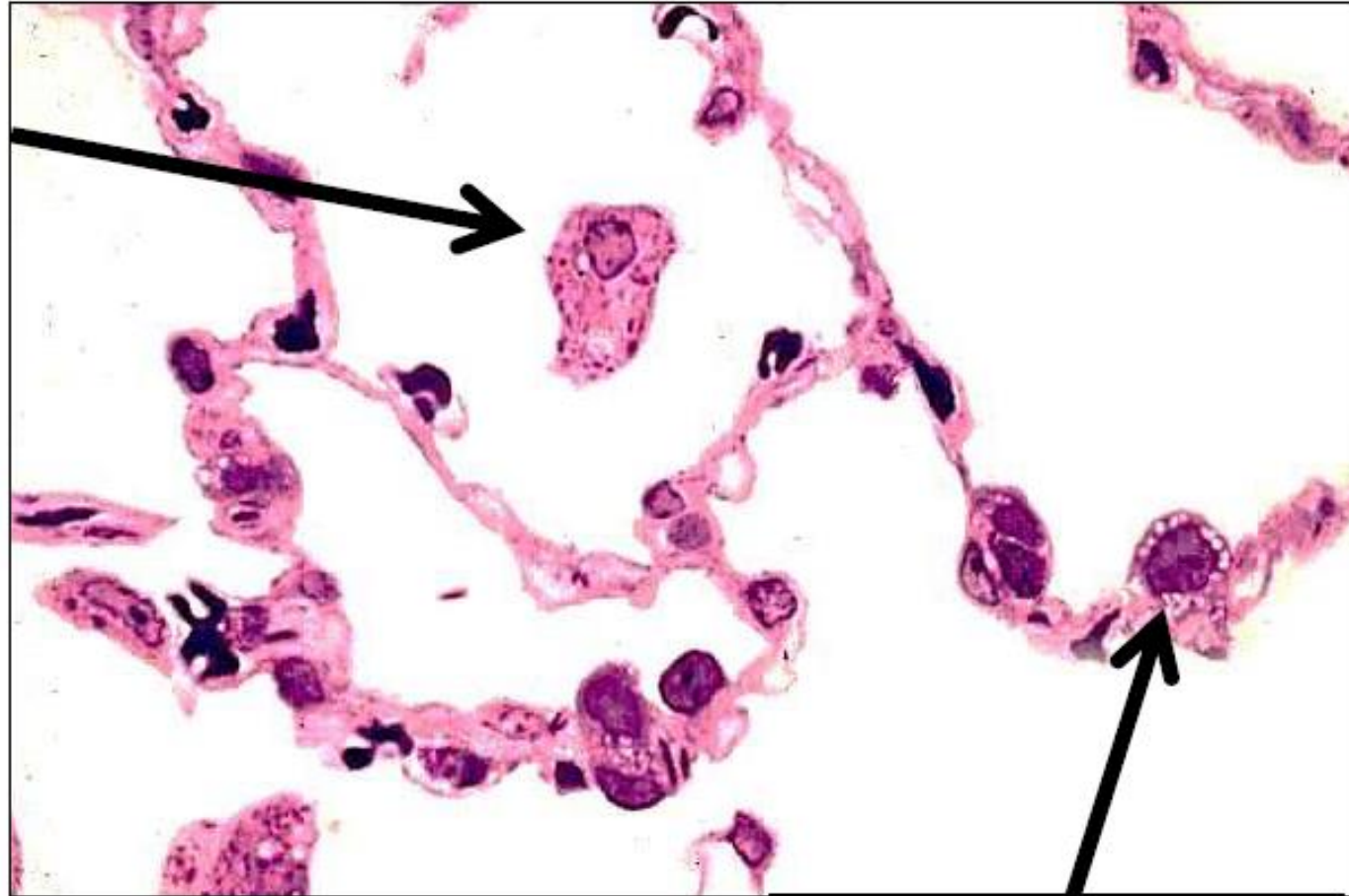
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Lamellar bodies



# Type II pneumocyte and Dust cell

Dust cell

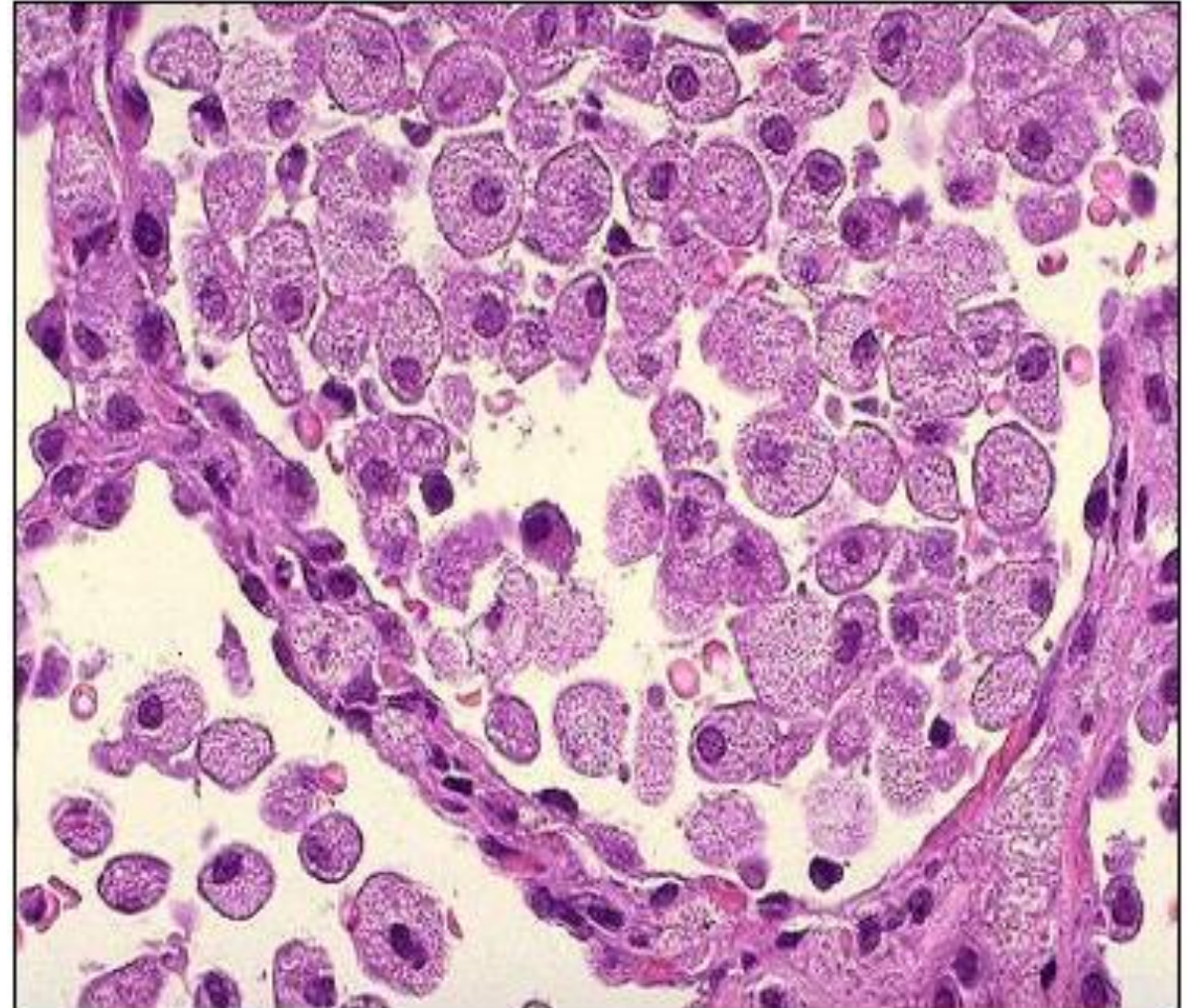


Pneumocyte type II



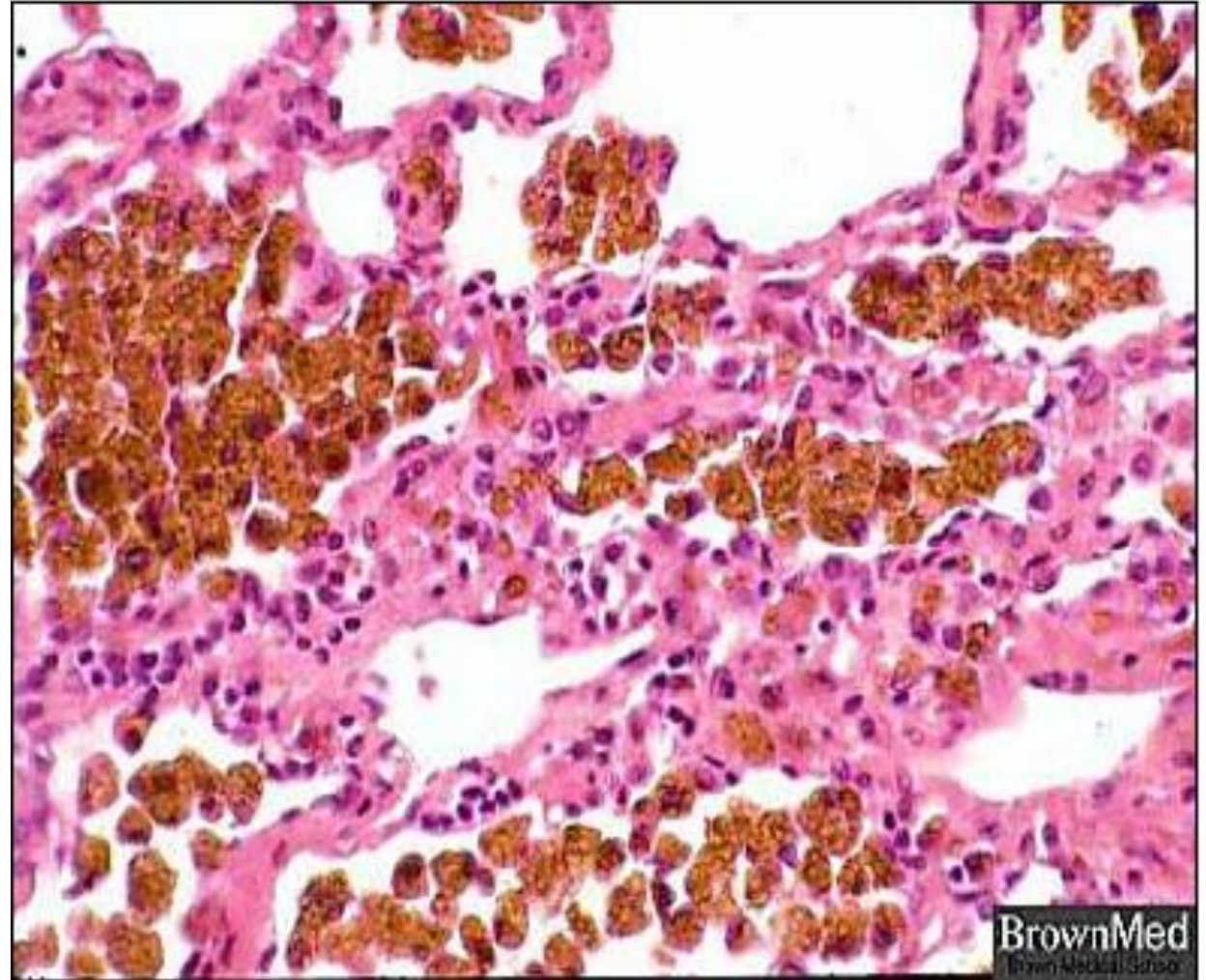
# Foamy macrophages

- ❖ Foamy macrophage (e.g. endogenous lipid pneumonia)
  - The term endogenous refers to the origin of the lipid material from breakdown of lung, usually distal to the site of an obstructive process (such as a neoplasm, an inhaled foreign body, or bronchiectasis).
  - Blood monocytes become macrophages that collect to ingest the lipid material.



# Heart failure cells

- ❖ Heart failure cells:
  - Seen in congestive heart failure





# Fetal Lung

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