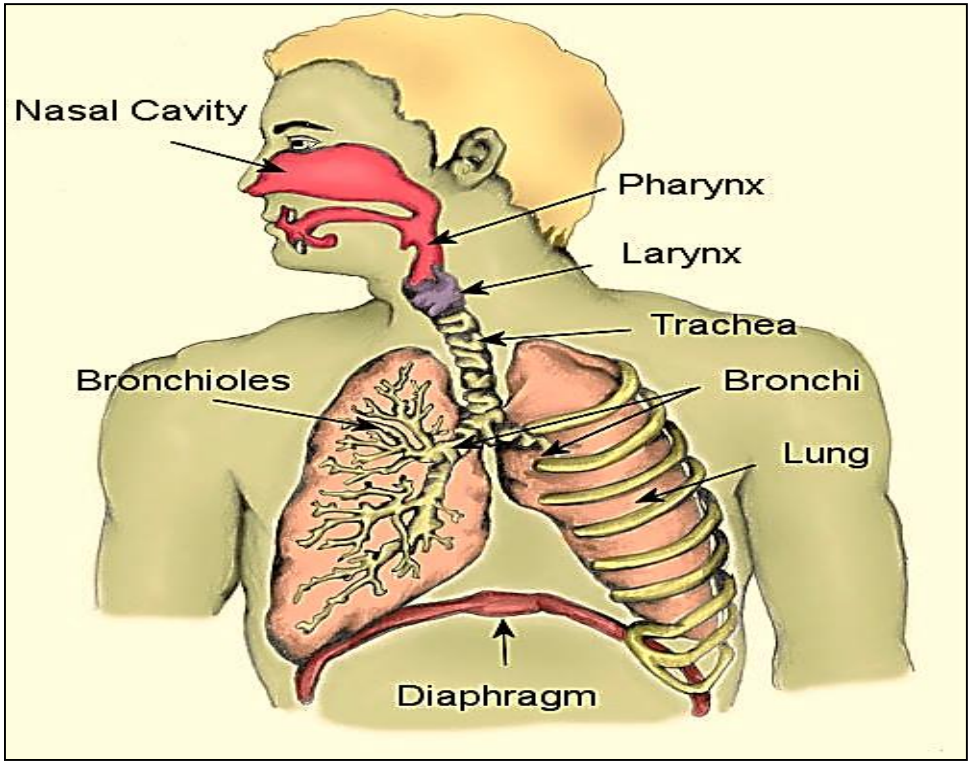
Respiratory system practical lab, 3rd year



Microscopic slides in the LAB:

1- Trachea

2- Epiglottis

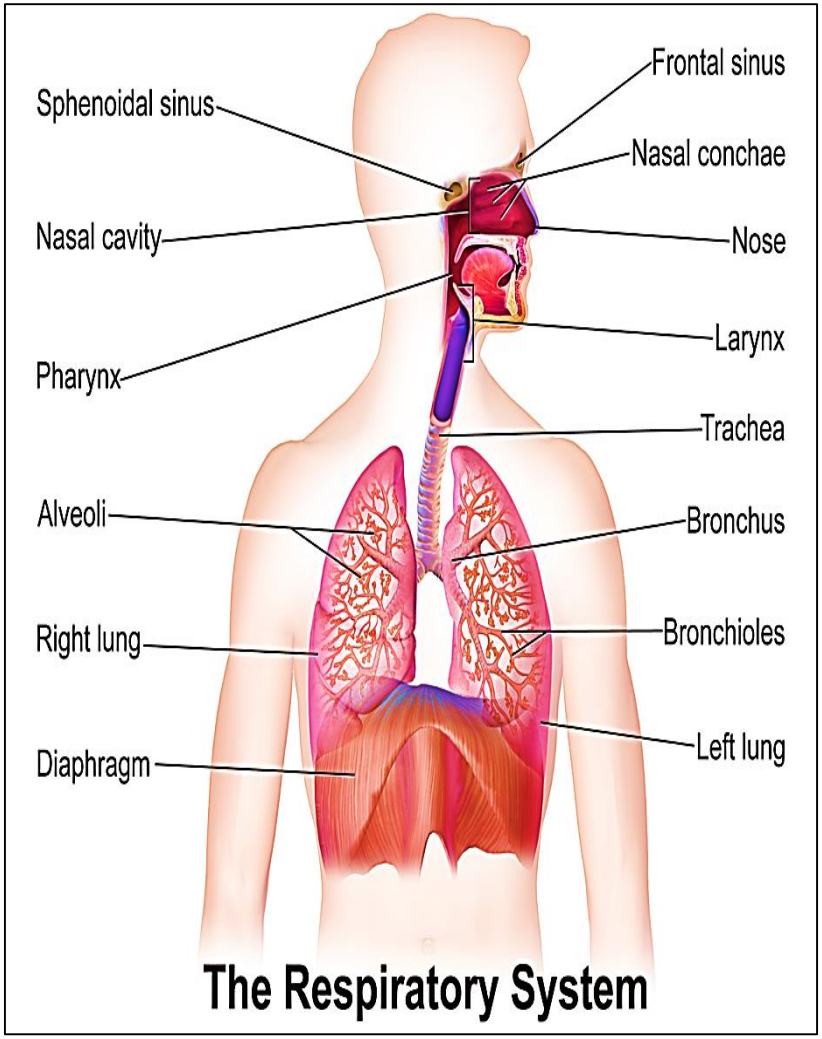
3- Respiratory epithelium

4- Olfactory epithelium

5- Lung + bronchus

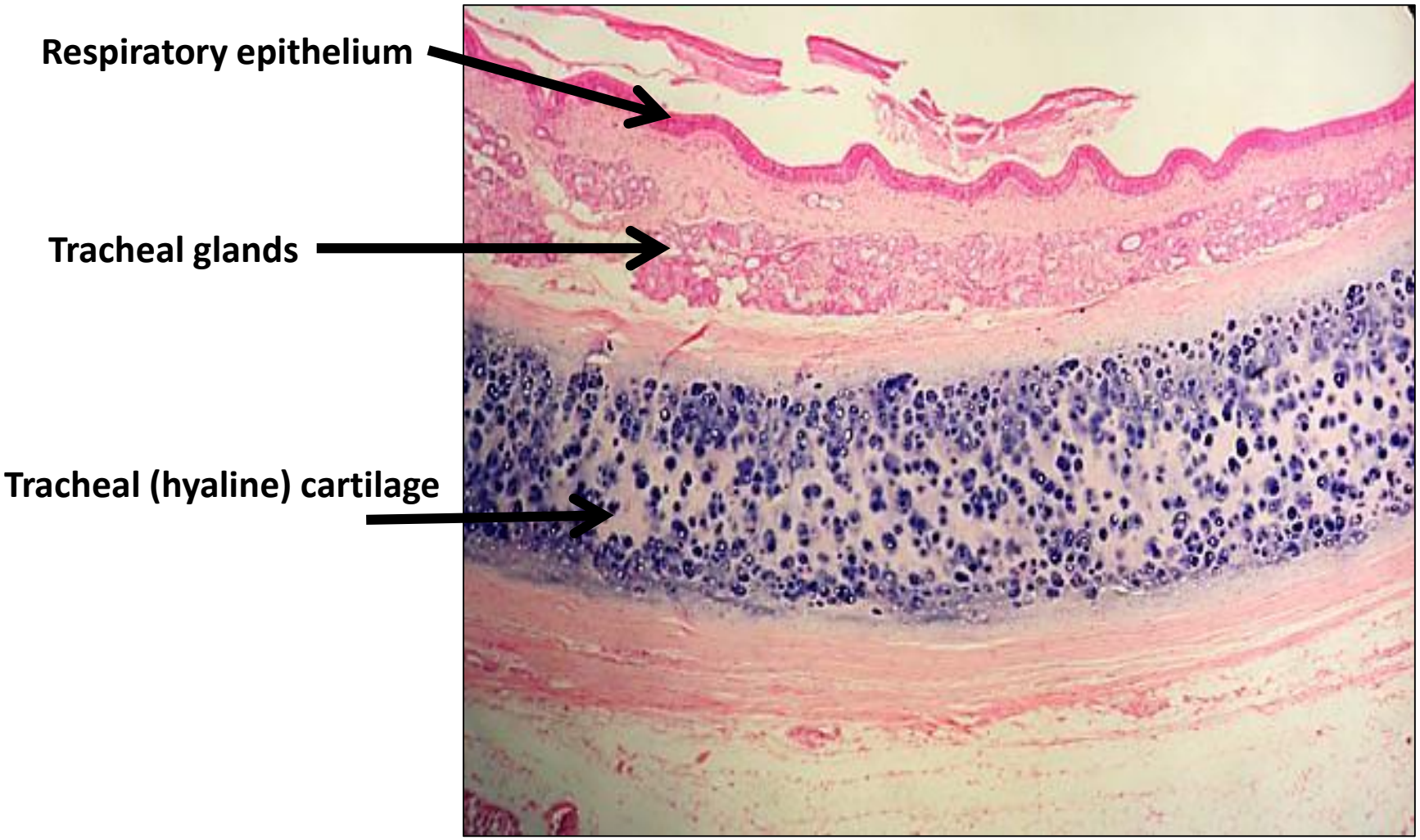
+ bronchiole

6- lung



Trachea & Esophagus

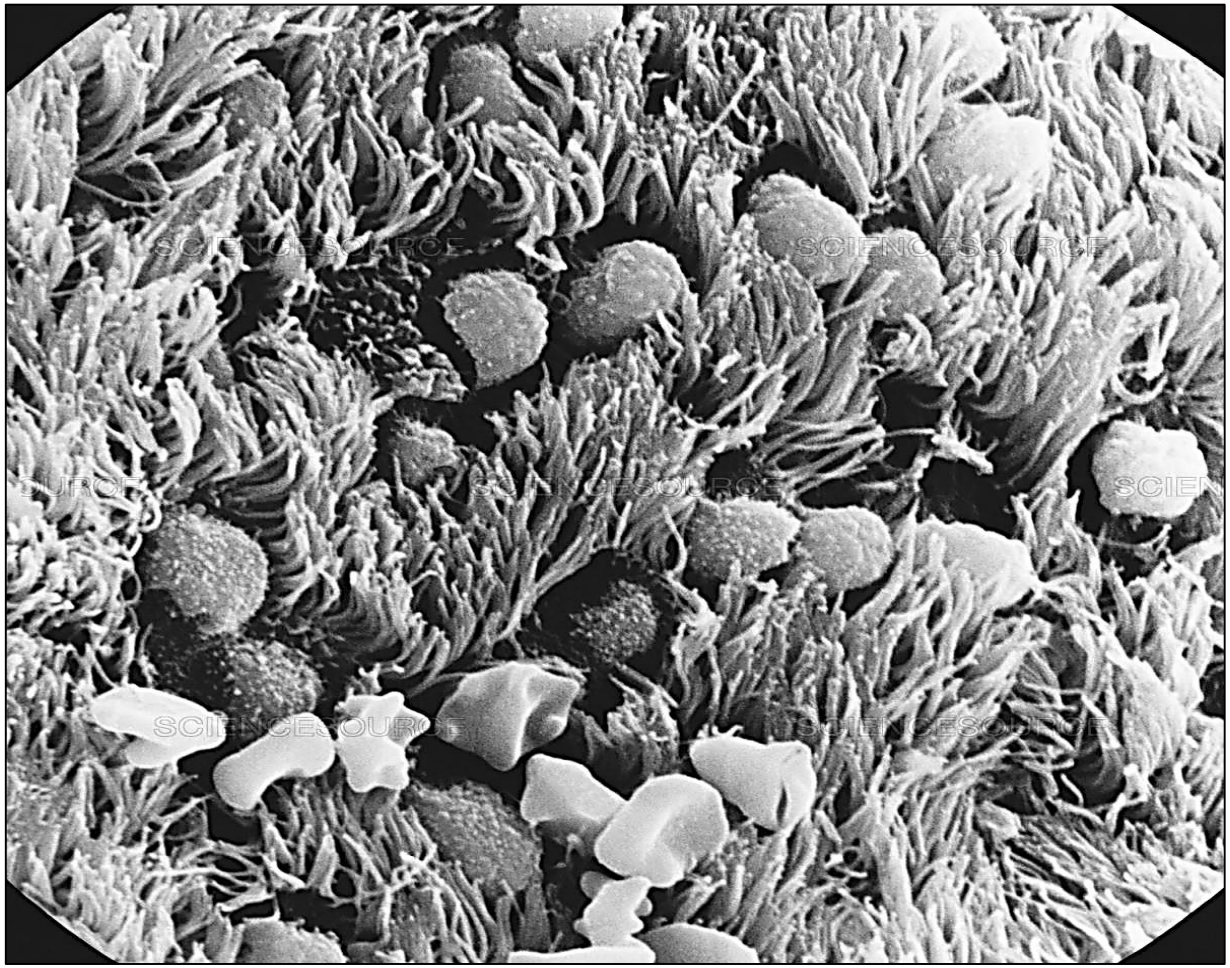
Cross section in trachea



Respiratory epithelium

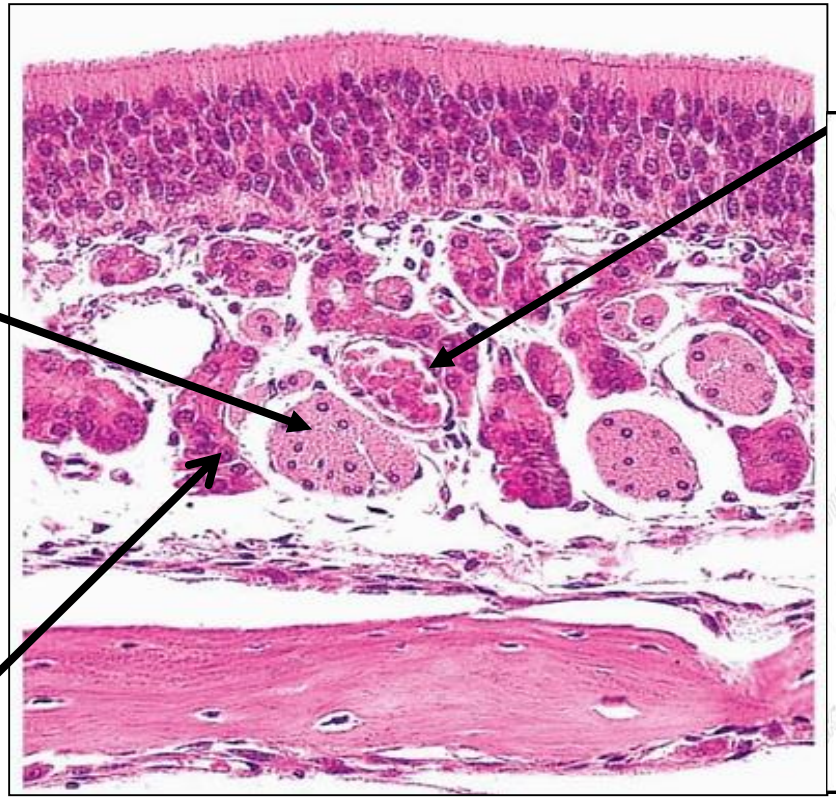
Pseudo stratified columnar ciliated with goblet cells

SEM of respiratory epithelium



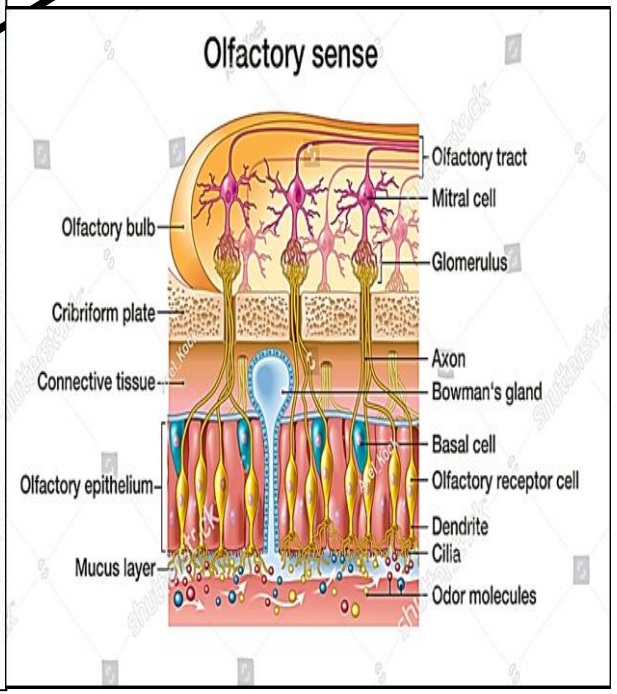
Olfactory epithelium

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

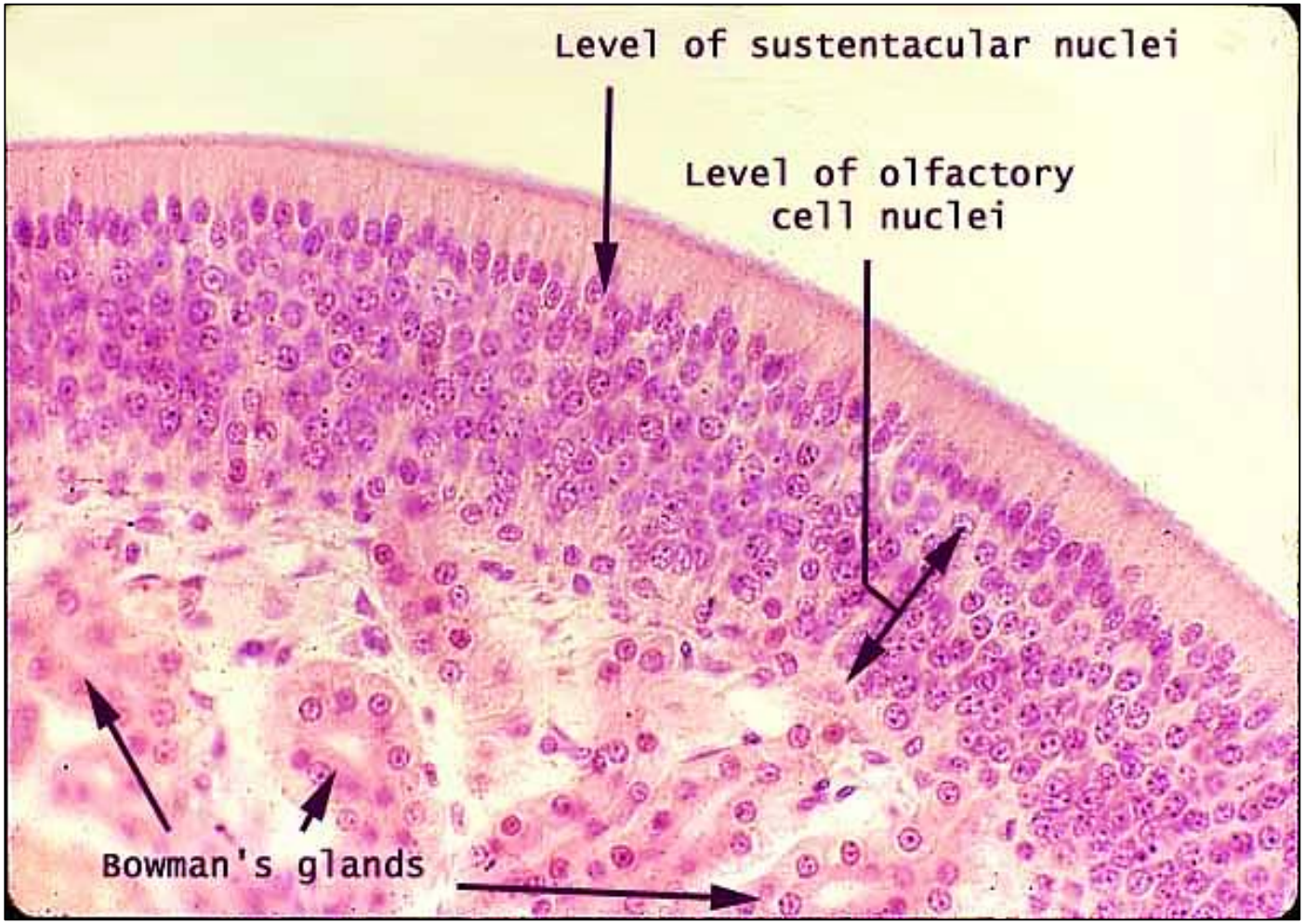


Venous plexus

Bowman's gland



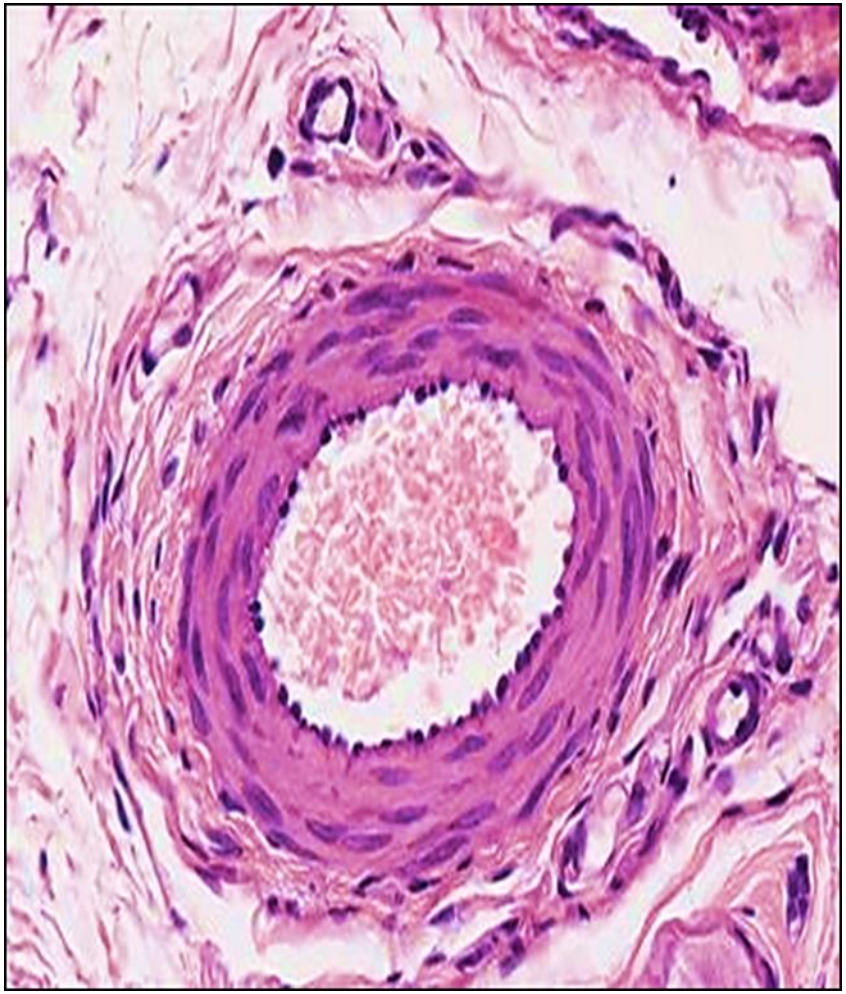
Pseudo-stratified columnar with chemoreceptors


Level of sustentacular nuclei
Level of olfactory cell nuclei
Bowman's glands

Bronchus

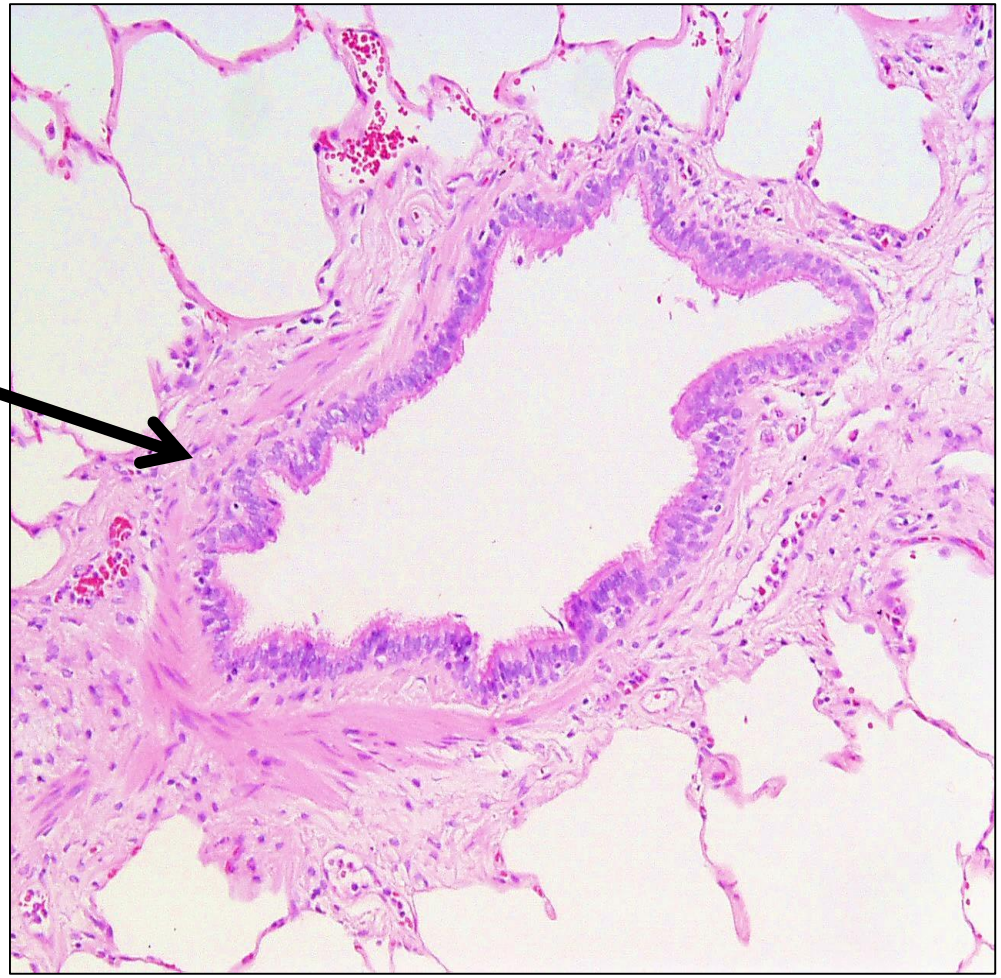
Cartilage plates

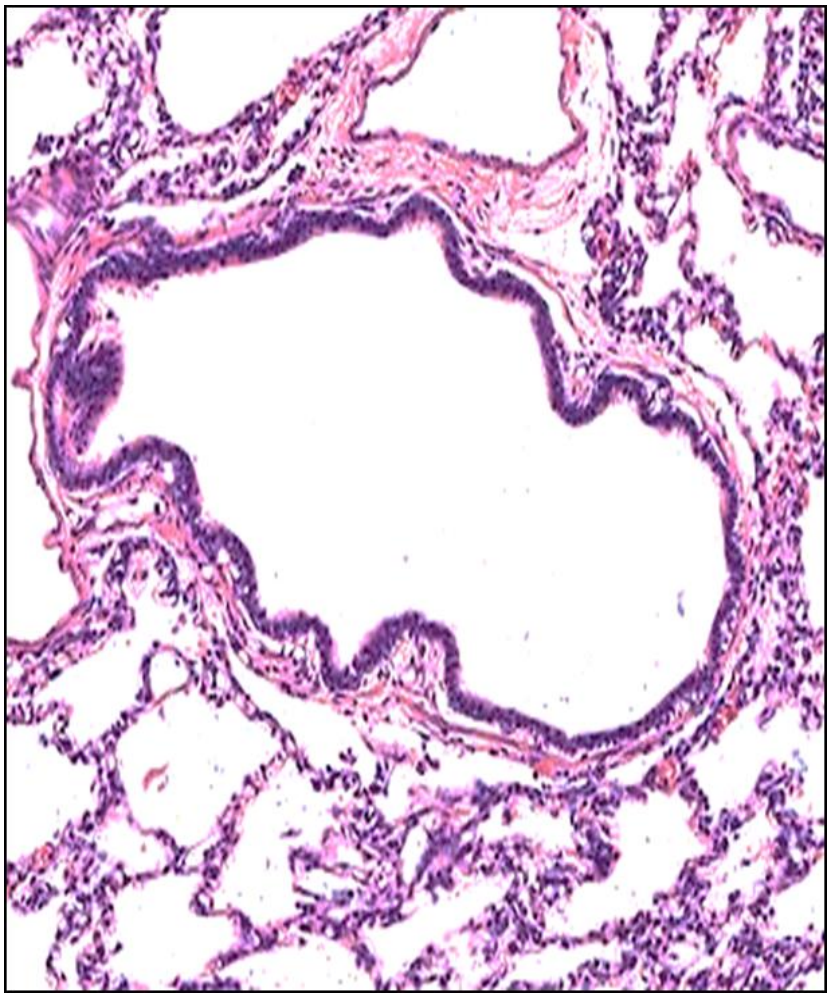
Bronchus



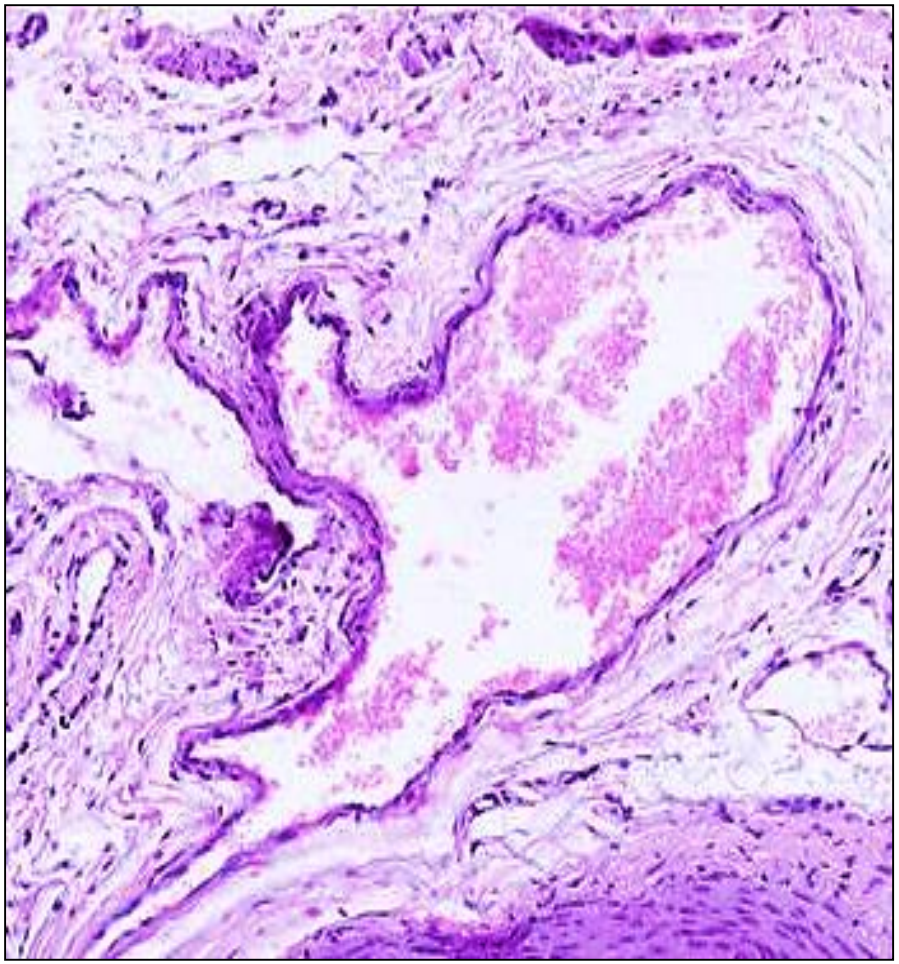
Blood vessel

Bronchiole

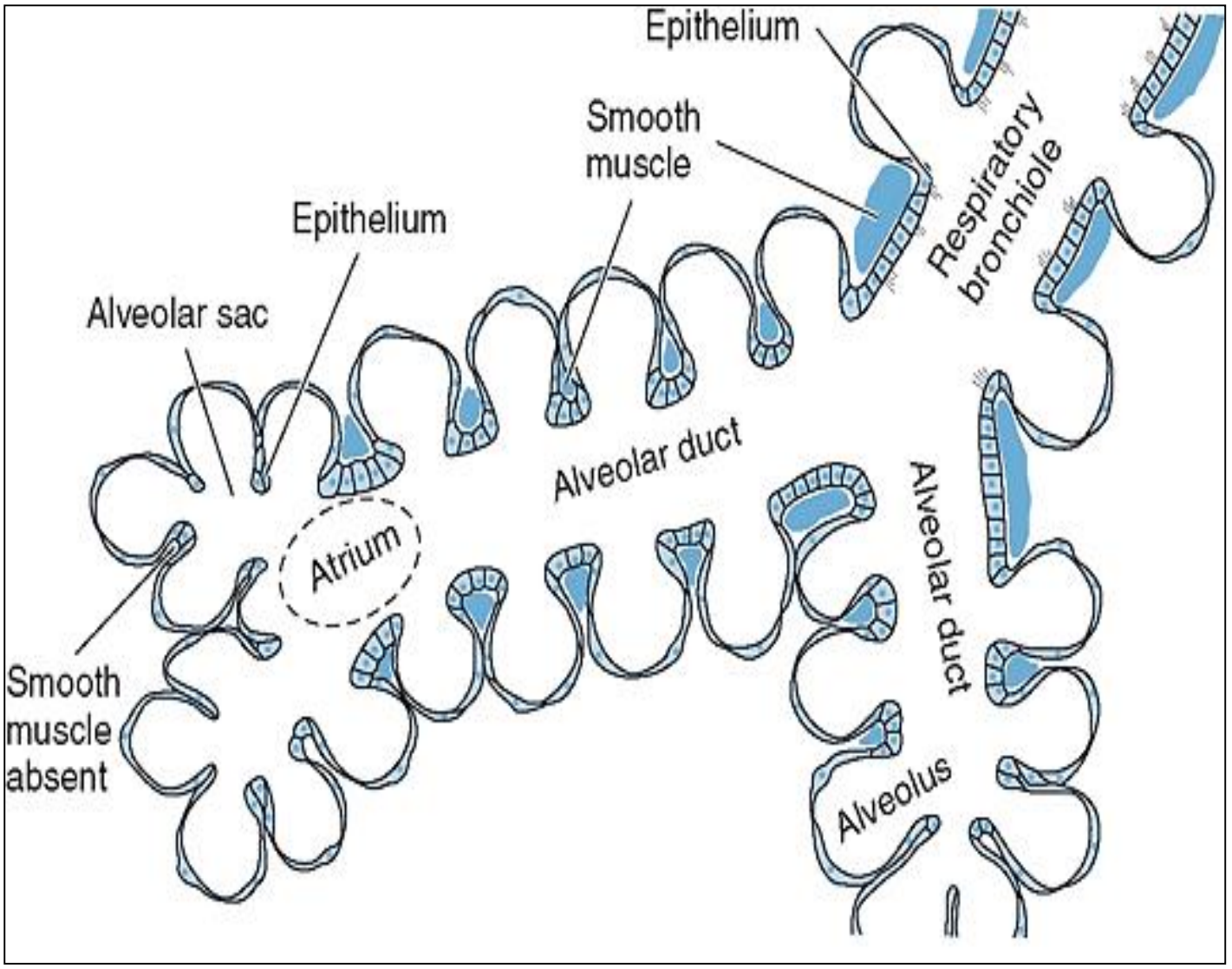




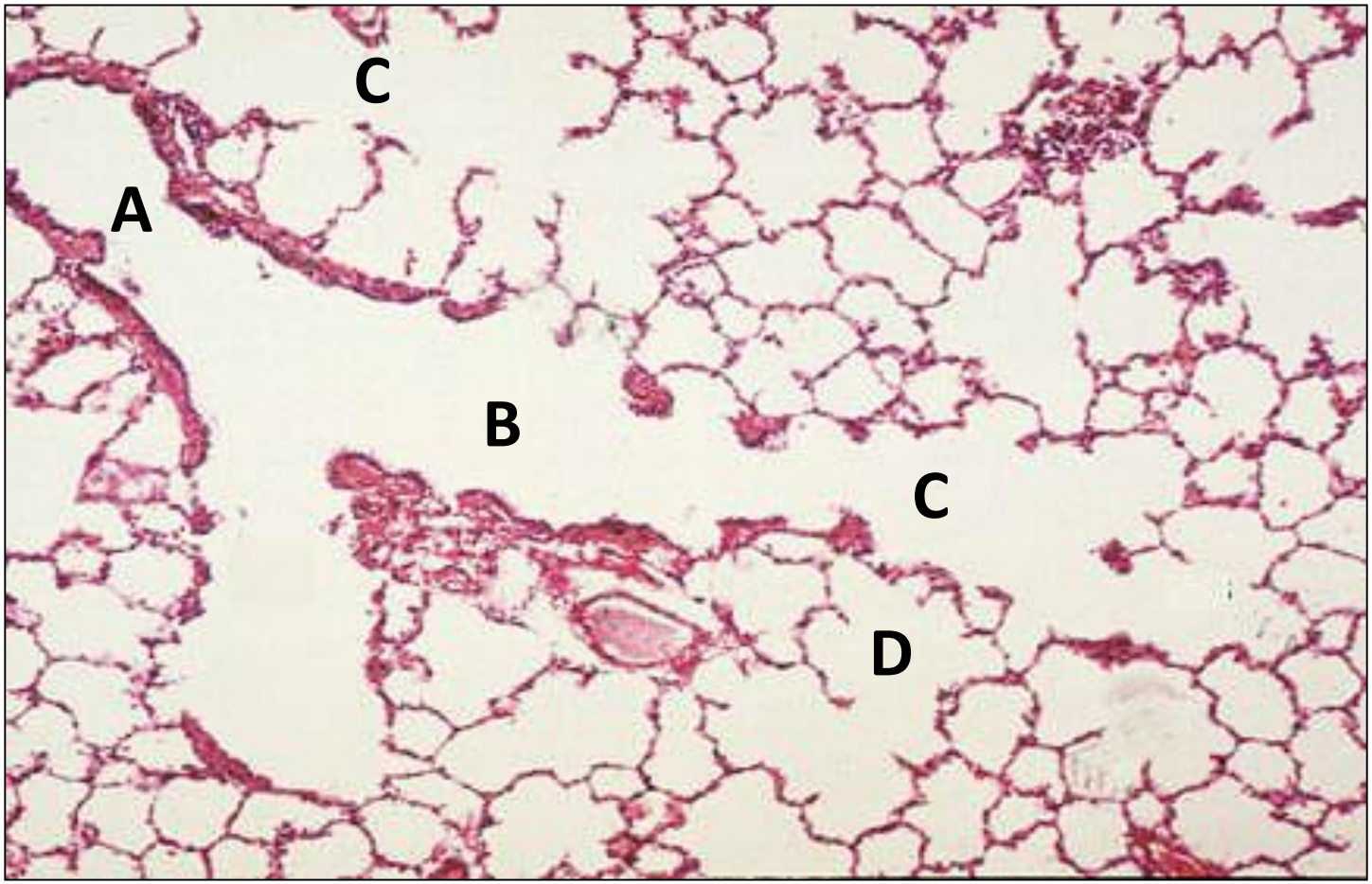
bronchiole



Blood vessel


Epithelium
Smooth muscle
Respiratory bronchiole
Epithelium
Alveolar sac
Alveolar duct
Atrium
Alveolar duct
Smooth muscle absent
Alveolus

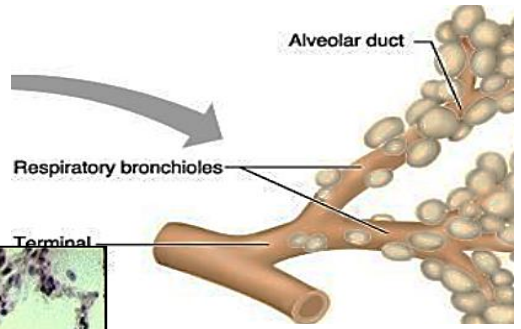
Section in lung

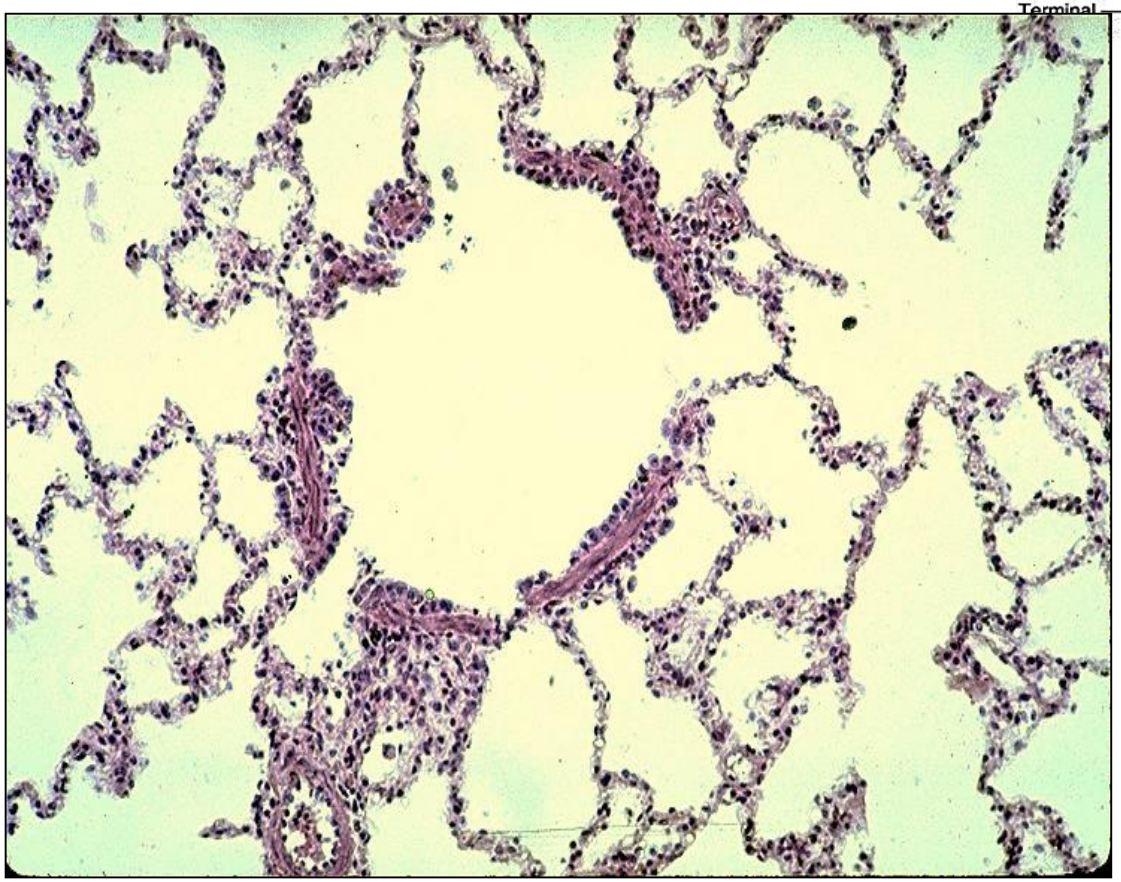


A: Terminal bronchiole
B: Respiratory bronchiole
C: Alveolar duct
D: Alveolar Sac

Cross section in lung

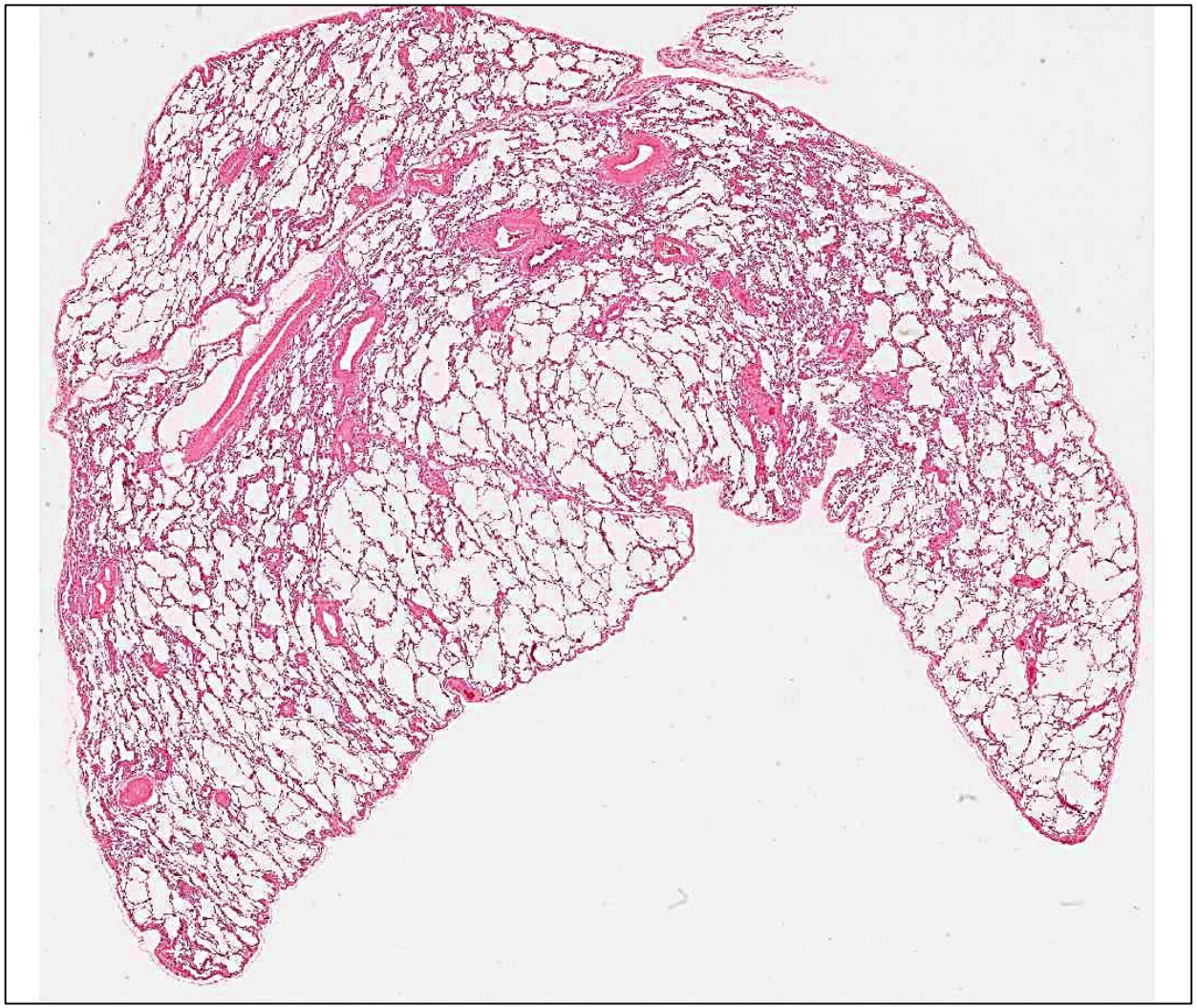
Respiratory bronchiole



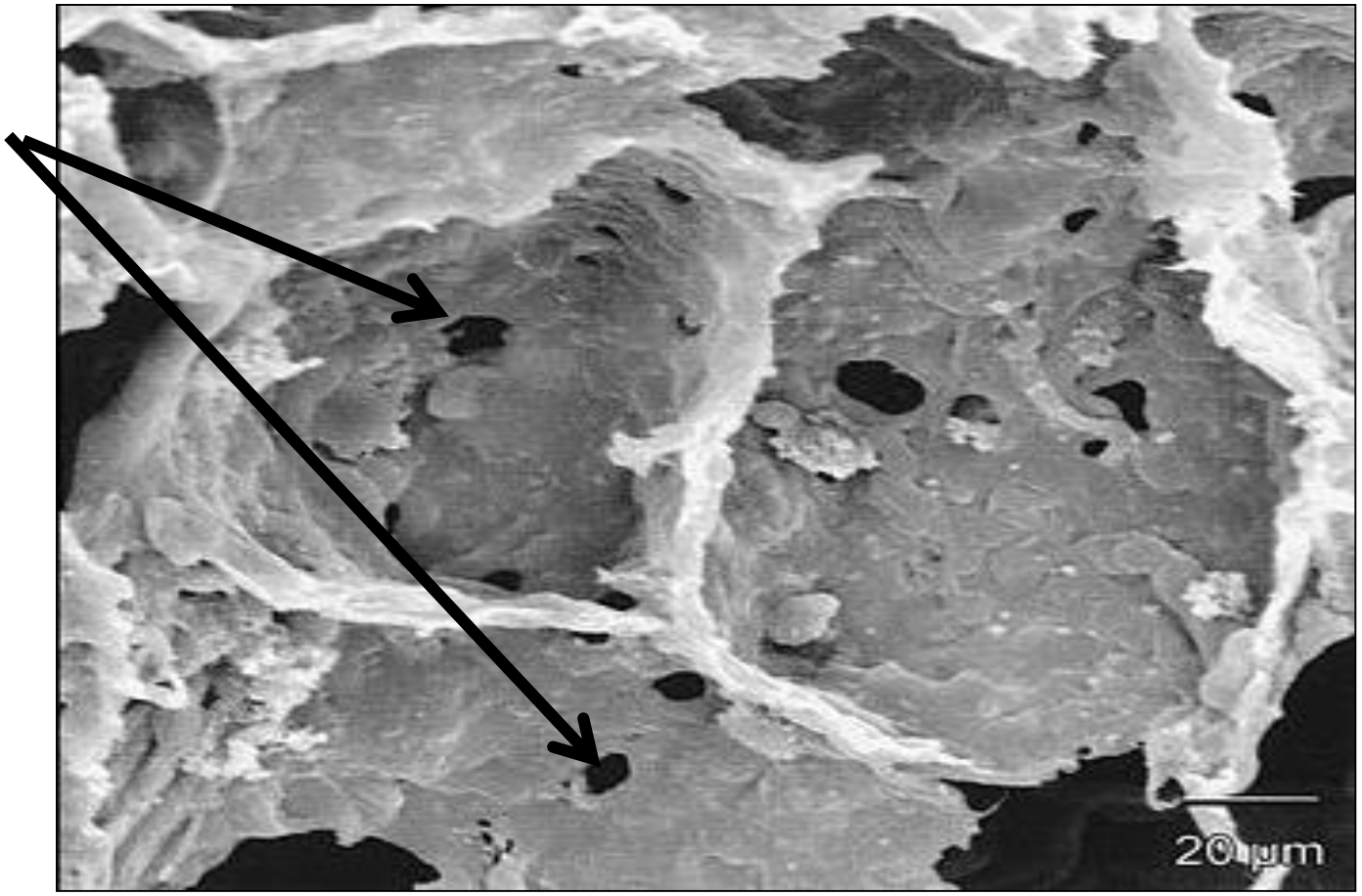


Simple cuboidal ciliated with Clara cells

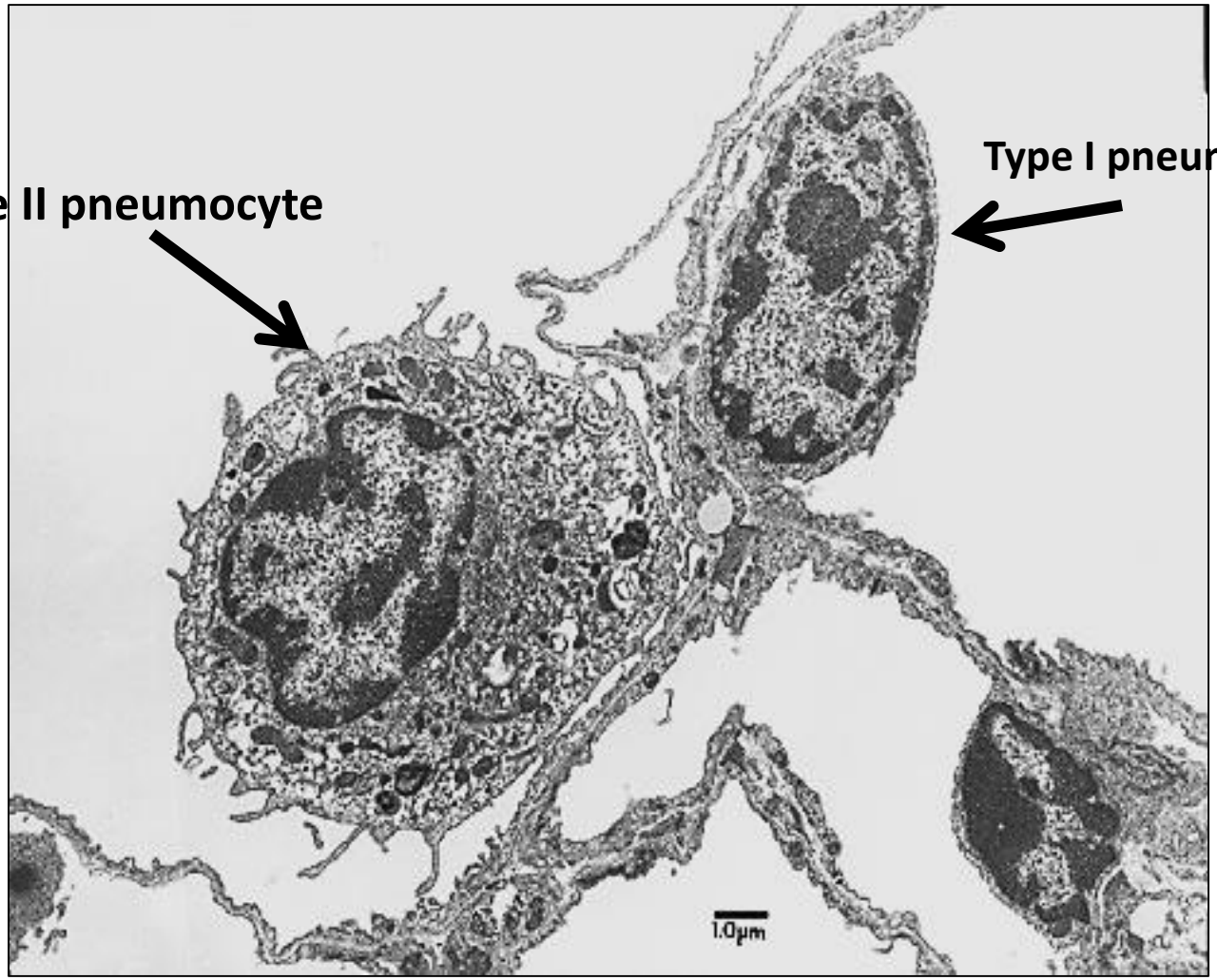
Lung



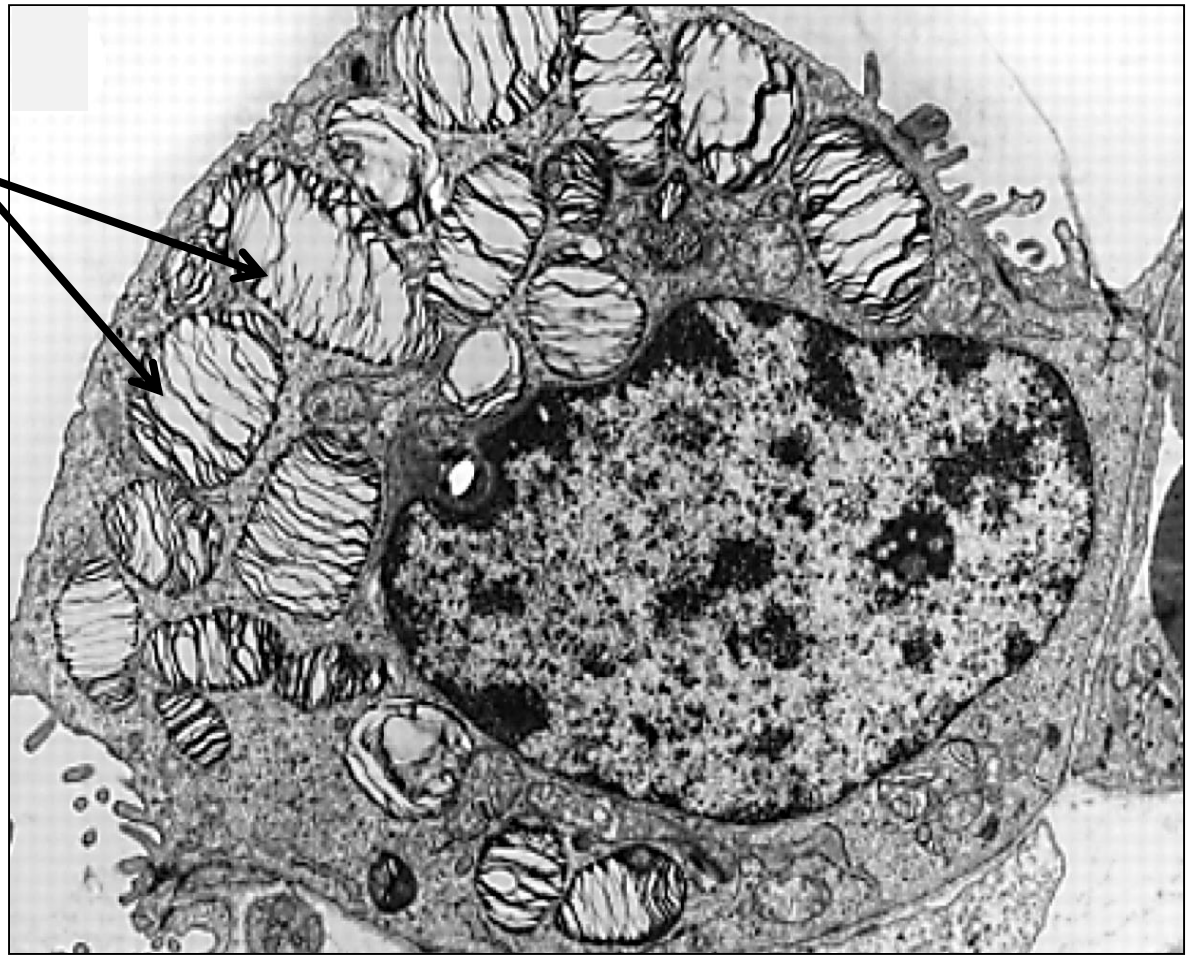
Pores of Kohn (E/M)



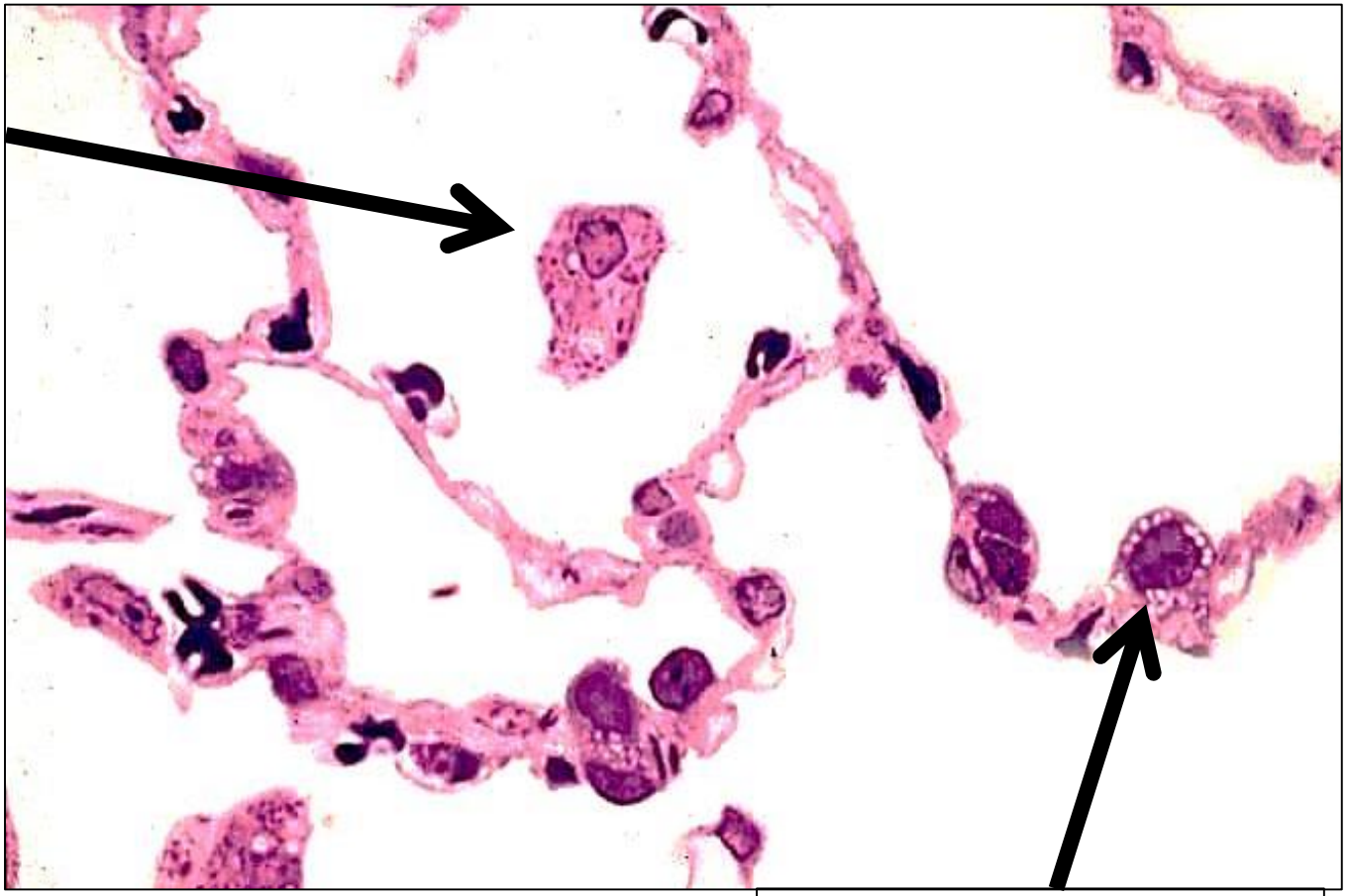
Type I & type II pneumocyte (E/M)



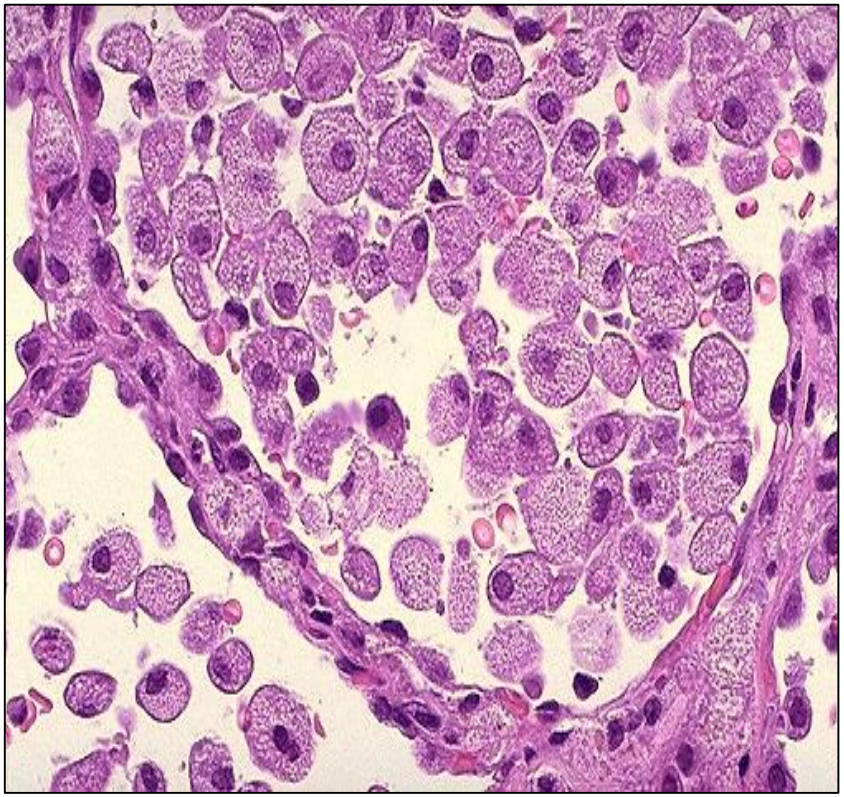
Type II pnuemocyte (E/M)



Dust cell

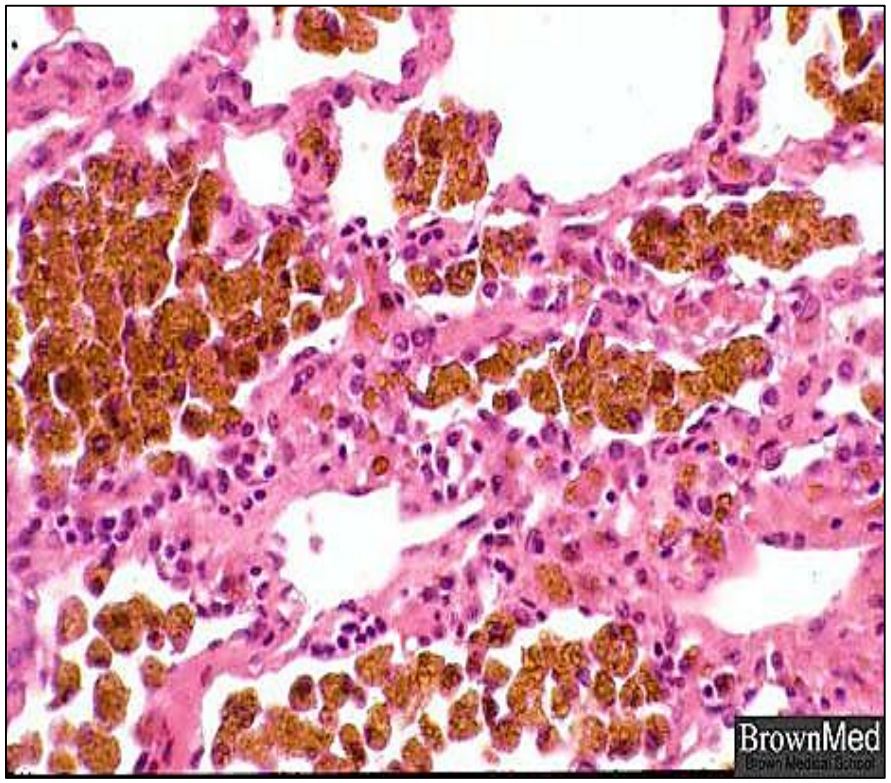


Pneumocyte type II



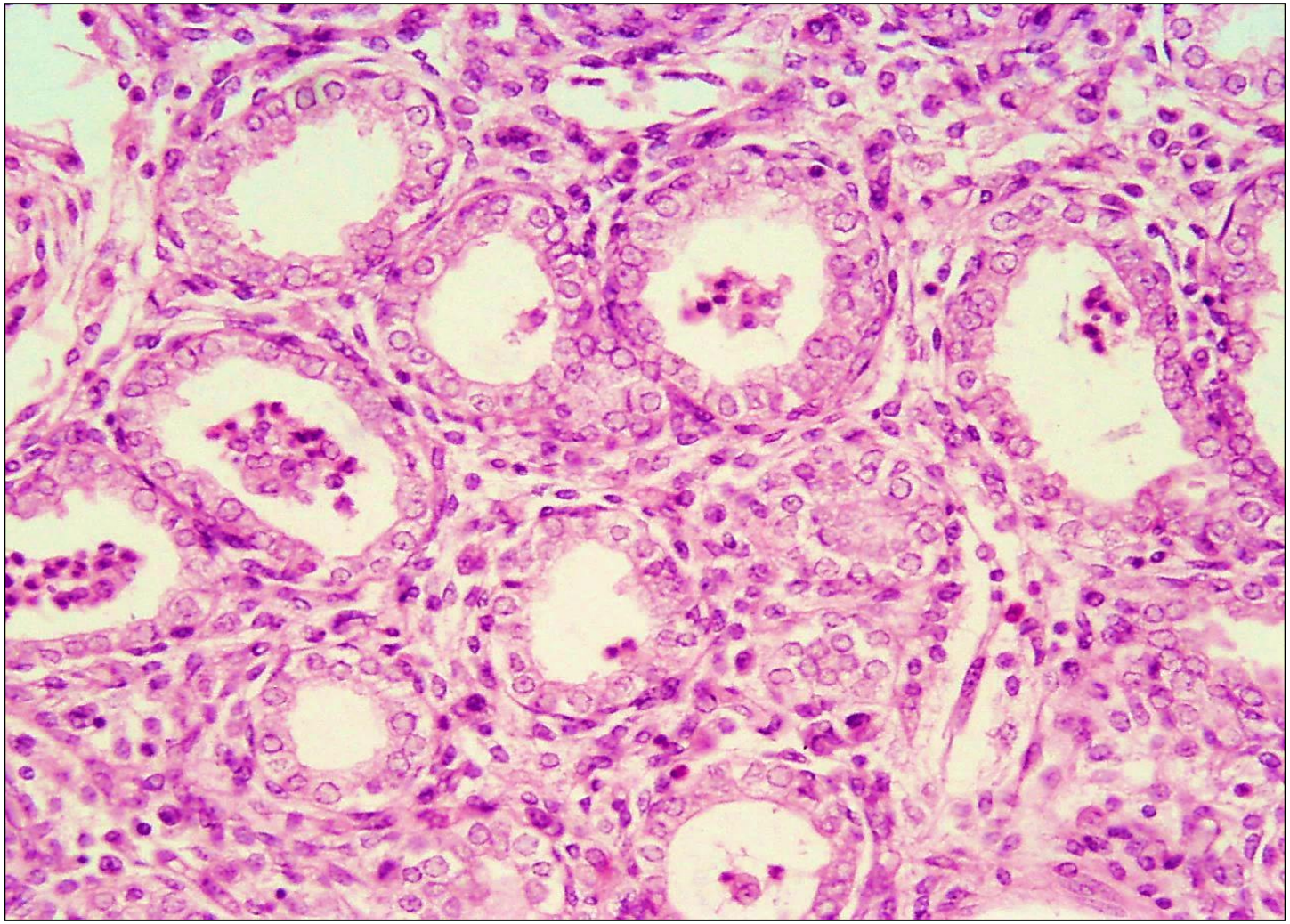
Foamy macrophage: e.g. endogenous lipid pneumonia

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:
seen in congestive heart failure

Fetal lung



Thank you