Histology Practical

Respiratory Block

This document have been revised by Dr. Raeesa
Students **DON'T** need to go back to original lectures,
Insha'allah, this is more than enough.
Best of luck <3

For any correction, suggestion or any useful information do not hesitate to contact us: **Histology434@gmail.com**

Nasal Septa

- Q- Identify ?

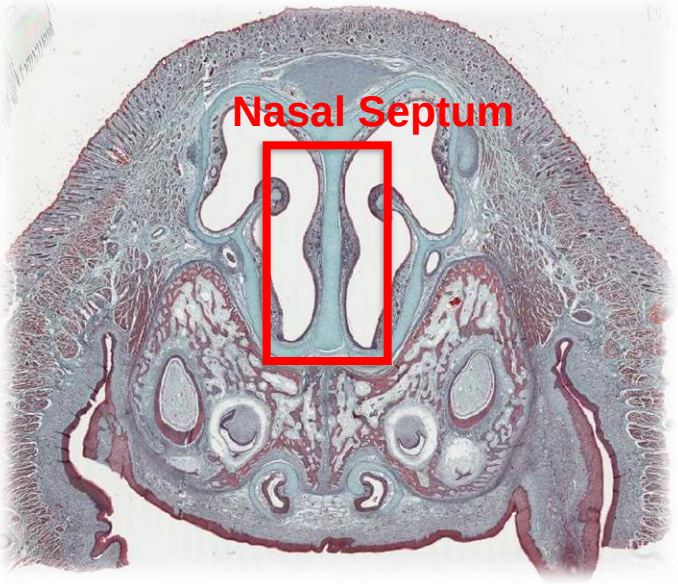
✓ Nasal cavity and septum.

- Q- Lining epithelium ?

✓ Pseudo-stratified ciliated columnar epithelium with goblet cells.

- Q-Type of cartilage ?

✓ Hyaline cartilage.



Respiratory Mucosa

- Q- Identify ?

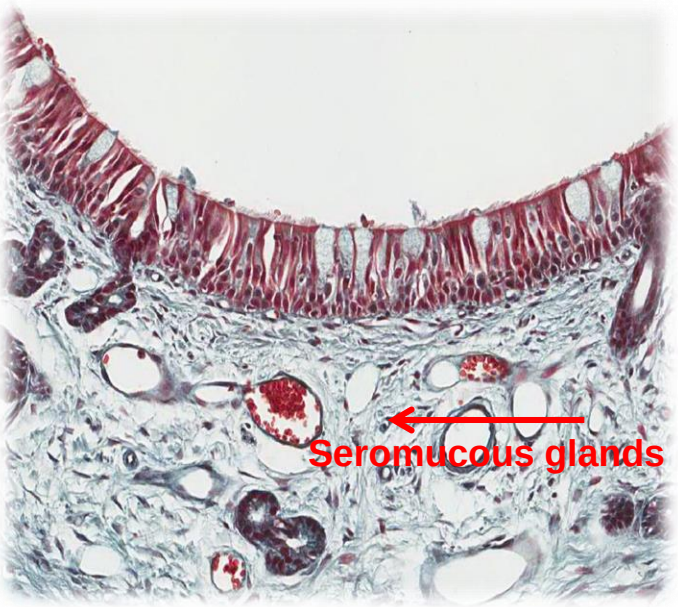
✓ Respiratory Mucosa.

- Q- Lining epithelium ?

✓ Pseudo-stratified ciliated columnar epithelium with goblet cells

- Q- What are the type of cells found in Olfactory epithelium ?

1. Bipolar neural olfactory cells.
2. Sustentacular cells.
3. Basal cells.



❑ Lamina propria contains :

✓ Blood vessels.
✓ Lymphoid elements.

Trachea

- Q- Identify ?

✓ Trachea

- Q-Lining epithelium ?

✓ Pseudo-stratified ciliated columnar epithelium with goblet cells.

- Q- Type of cartilage ?

✓ C-shaped hyaline cartilage "in adventitia"

Tracheal Mucosa

- Q- Identify ?

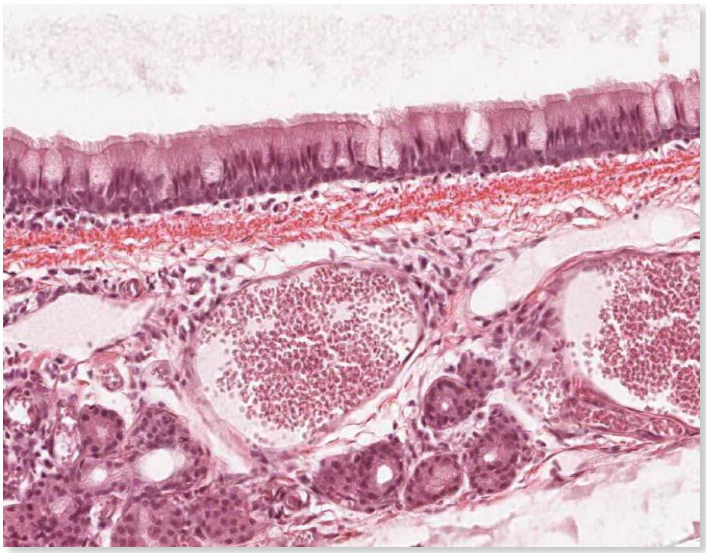
Tracheal mucosa.

- Q- Lining epithelium ?

Pseudo-stratified ciliated columnar epithelium with goblet cells

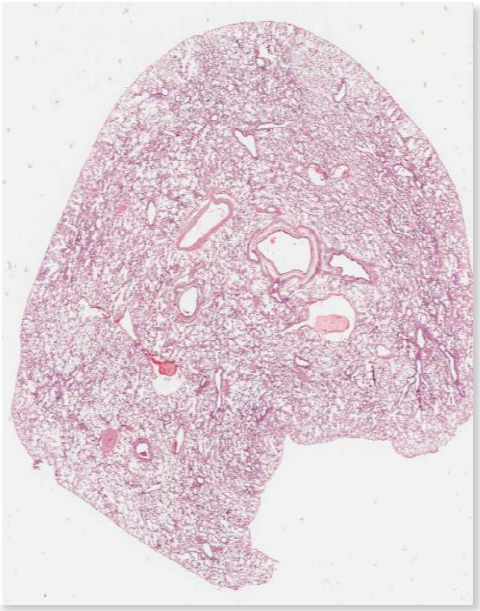
- Submucosa contains

- Seromucous glands.
- Lymphoid elements

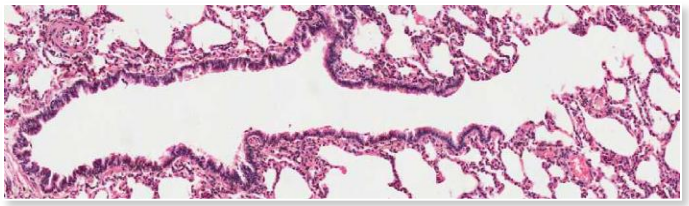


Lung

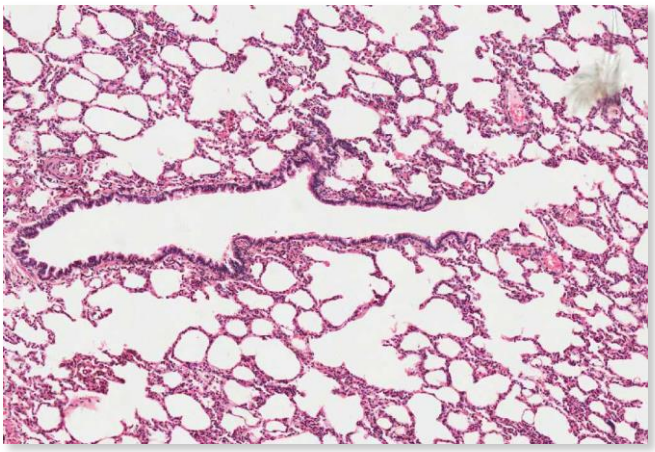
- Intrapulmonary Bronchus
- Bronchioles
- Pulmonary Alveoli



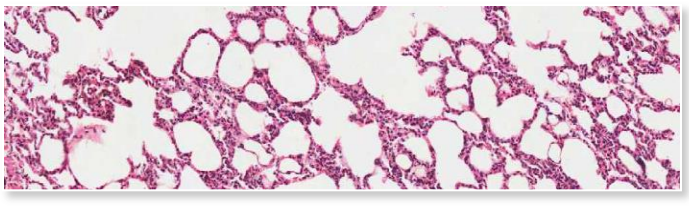
Longitudinal Section "LS"



Bronchiole (LS)



Lung

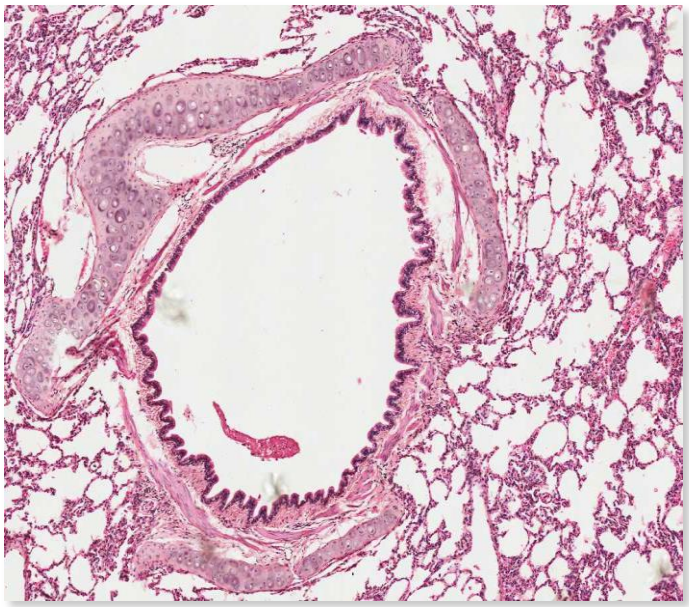


Pulmonary Alveoli

Intrapulmonary Bronchi

- Q- Identify ?

Intrapulmonary Bronchi.



- Q- Lining epithelium ?

Pseudo-stratified ciliated columnar epithelium with goblet cells

- Q- Type of cartilage ?

Hyaline cartilage.

- Difference between Intrapulmonary and Extrapulmonary Bronchi

Intrapulmonary	Extrapulmonary
Plates of Cartilage	C-shaped Cartilage

Terminal Bronchioles

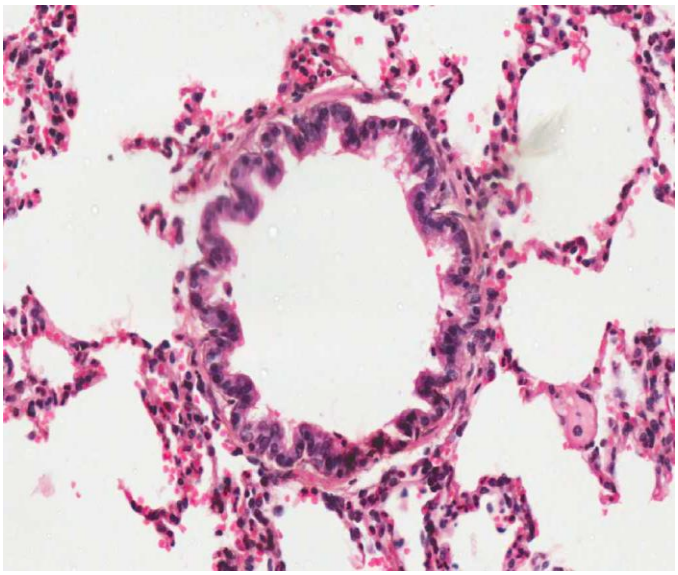
- Q- Identify ?

Terminal Bronchioles (TS)

- Q- Lining epithelium ?

✓ Simple cuboidal partially ciliated epithelium with Clara cells.

(NO goblet cells)



- Functions of Clara Cells

1. Degrade toxins in inhaled air.
2. Divide to regenerate the bronchiolar epithelium.
3. Produce surfactant-like material

Pulmonary Alveoli

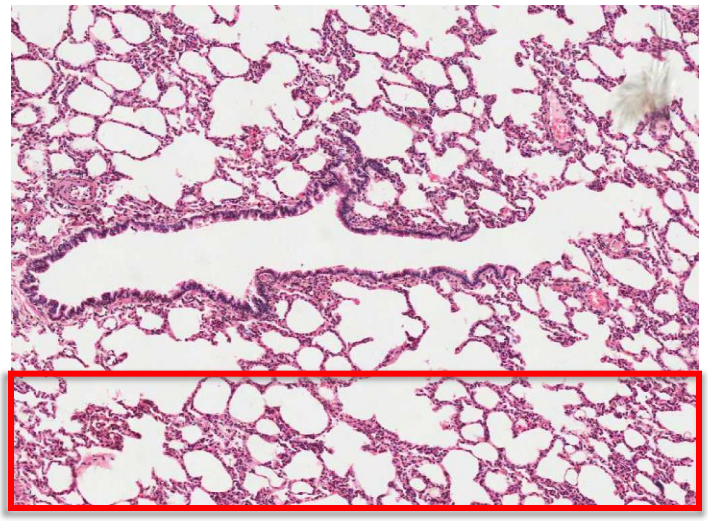
- Q- Type of epithelium ?

Simple squamous epithelium

- Q- What are the types of cells found in the Alveoli epithelium ?

Type I Pneumocytes

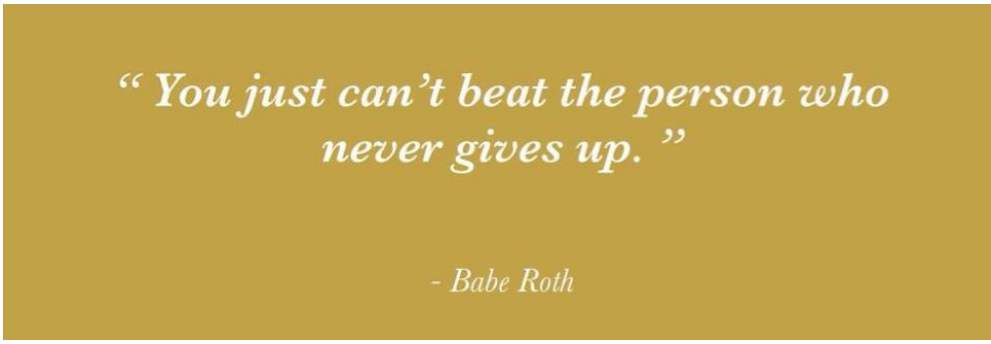
Type II Pneumocytes



	Type I Pneumocyte	Type II Pneumocyte
Function	Gas Exchange	Secrete Surfactatnt
Structure	Simple Squamous "Flattened"	Cuboidal "Rounded"

- Interalveolar Septum: is a region between 2 adjacent alveoli
- Dust Cells "Macrophages"
  - ✓ Site: In the Lumen of Alveoli and in the interalveolar septa
  - ✓ Structure: Irregular
- Blood Gas Barrier Components
  1. Surfactant
  2. Type I Pneumocyte epithelium
  3. Endothelial cells
  4. Basement membrane of both type I pneumocyte and endotheium cells of pulmonary capillaries

Motivation Corner



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Thank you for Checking our Work