

Figure 15-2 Schematic diagram of the olfactory epithelium showing basal, olfactory, and sustentacular cells. Copyright © 2002 by W.B. Saunders Company. All rights reserved.

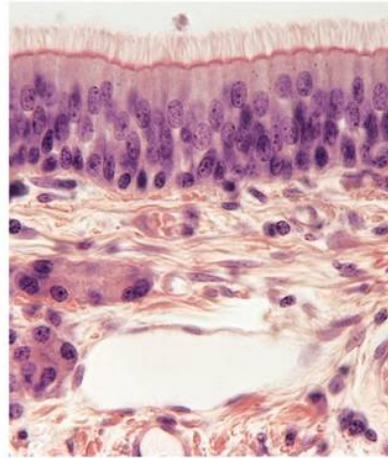
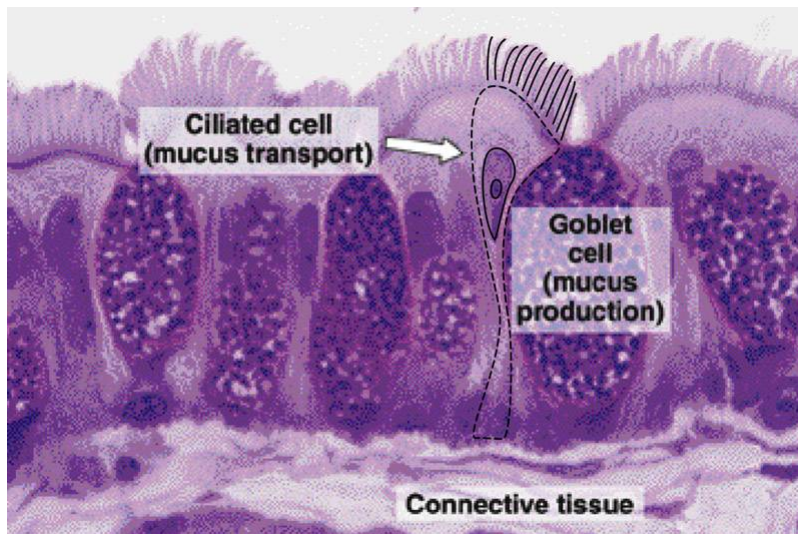


Figure 15-1 Photomicrograph of the human olfactory mucosa (×540). Copyright © 2002 by W.B. Saunders Company. All rights reserved.

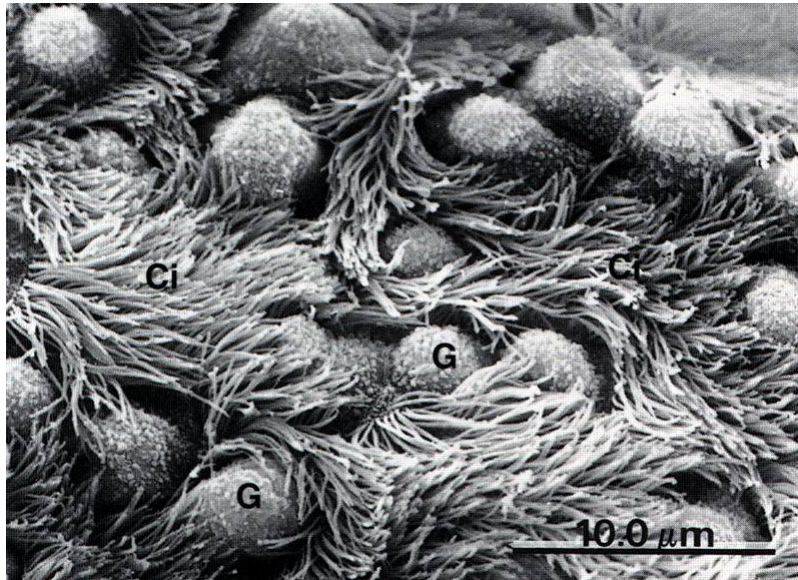
REVIEW Olfactory Epithelium
 List the ways that this mucosa makes the air easier for us to breathe?
 Warm, moist, cleans, olfaction

Respiratory Epithelium



Basic Histology, Junqueira and Carneiro, 2003

Ciliated Cells and Goblet Cells



Wheater's Functional Histology, 2000

Table 17-1. Structural changes in the conducting portions of the respiratory tract.

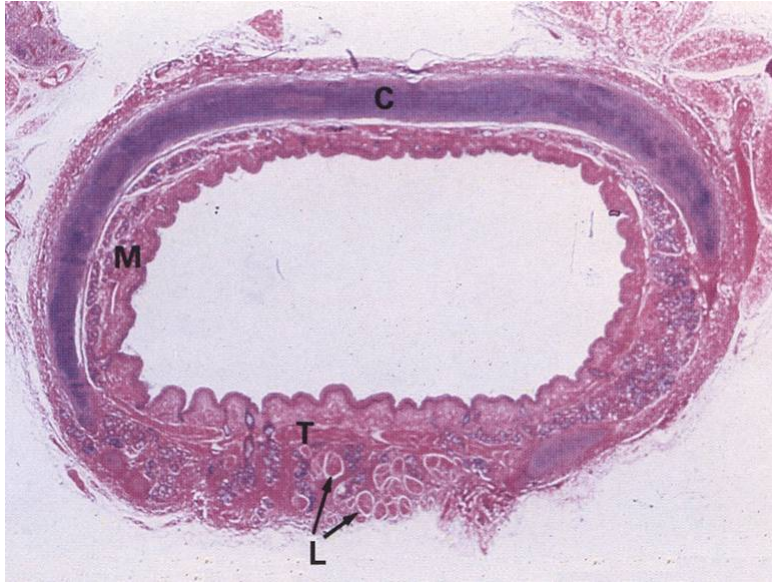
	Nasal Fossae	Naso-pharynx	Larynx	Trachea	Bronchi		Bronchioles		
					Large	Small	Regular	Terminal	Respiratory
Epithelium	Ciliated pseudostratified columnar ^{1,2}						→ Transition → Ciliated pseudo-stratified columnar → Ciliated simple columnar → Ciliated simple cuboidal		
Goblet cells	Abundant				Present	Few	Scattered	None	
Glands	Abundant			Present		Few	None		
Cartilage			Complex (hyaline and elastic)	C-shaped rings	Irregular rings	Plates and islands	None		
Smooth muscle	None			Spanning open ends of C-shaped rings	Crisscrossing spiral bundles				
Elastic fibers	None	Present			Abundant				

¹ Stratified squamous in regions of direct air flow or abrasion.

² Vestibule of nose shows transition from keratinized stratified squamous to ciliated pseudostratified columnar epithelium.

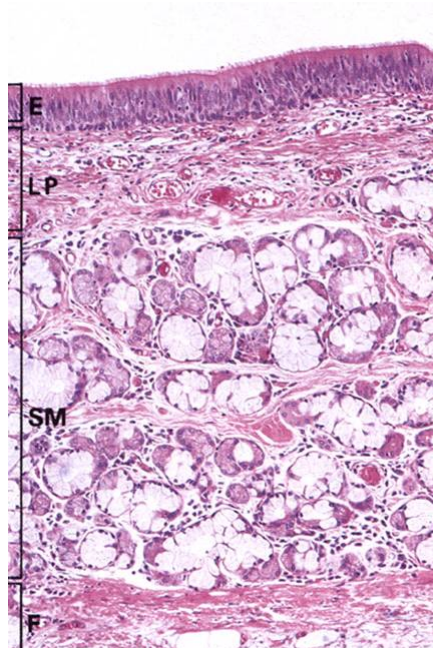
Basic Histology, Junqueira and Carneiro, 2003

Trachea



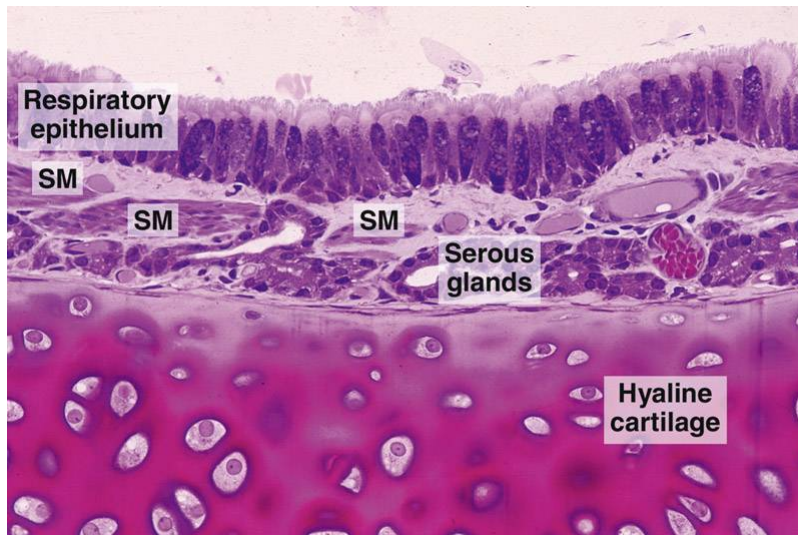
Wheater's Functional Histology, 2000

Trachea

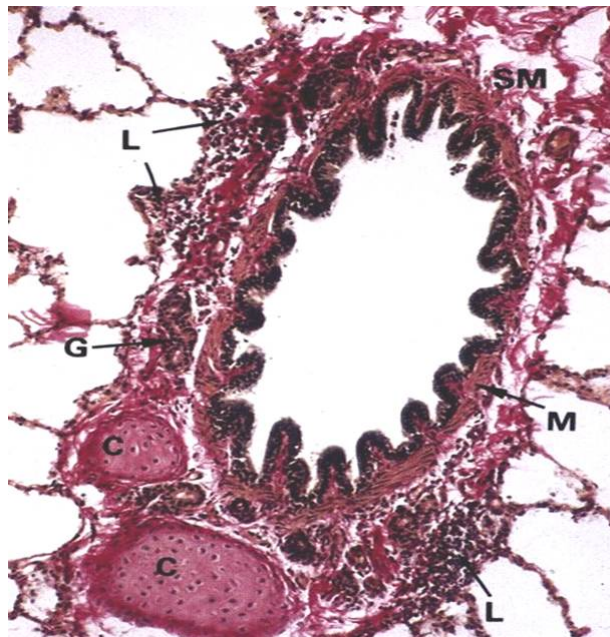


Wheater's Functional Histology, 2000

Bronchus



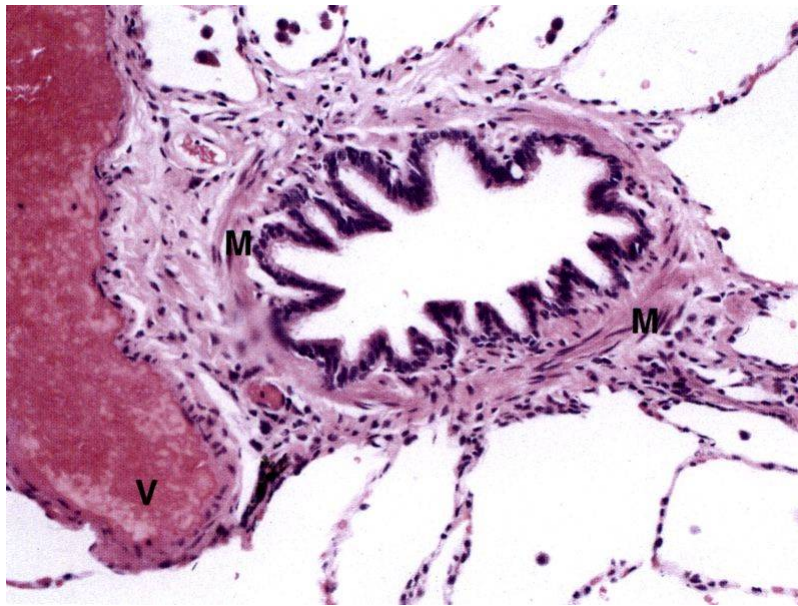
Basic Histology, Junqueira and Carneiro, 2003



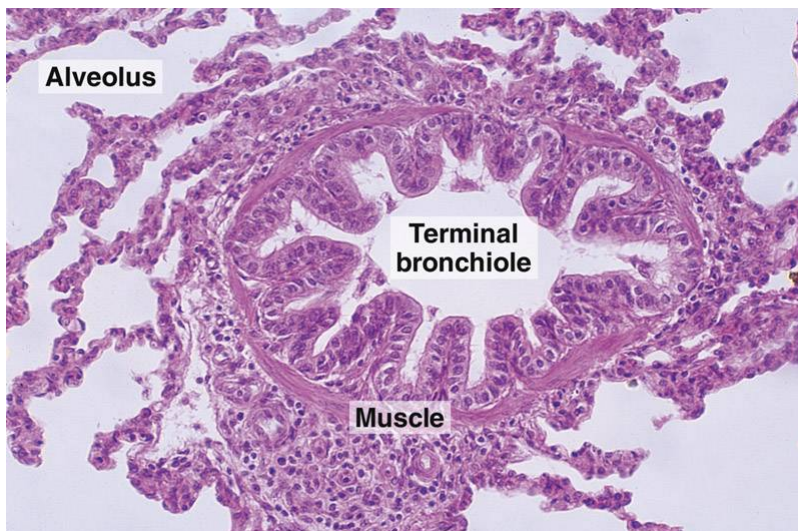
Tertiary Bronchus

Wheater's Functional Histology, 2000

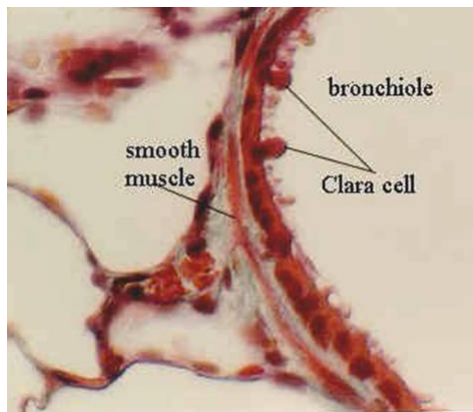
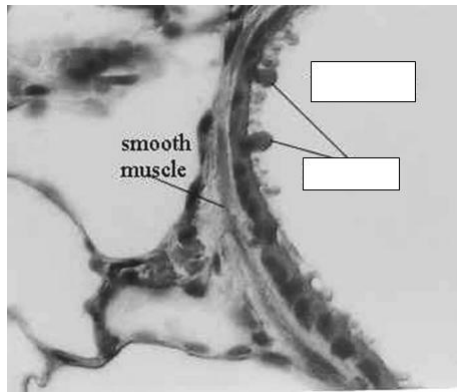
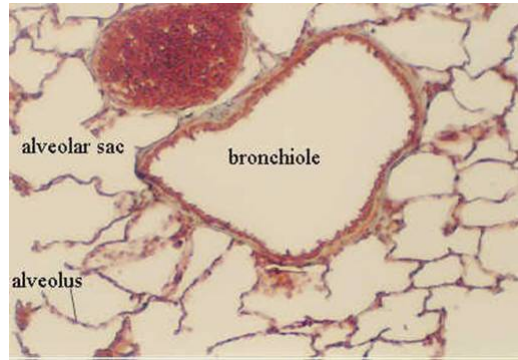
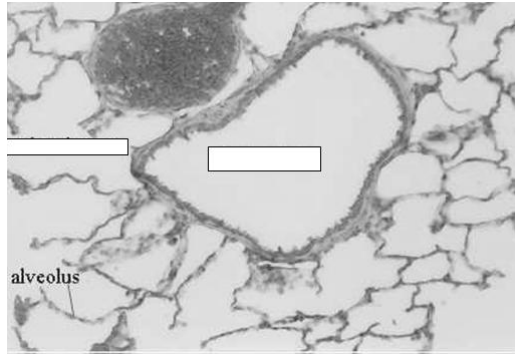
Bronchiole

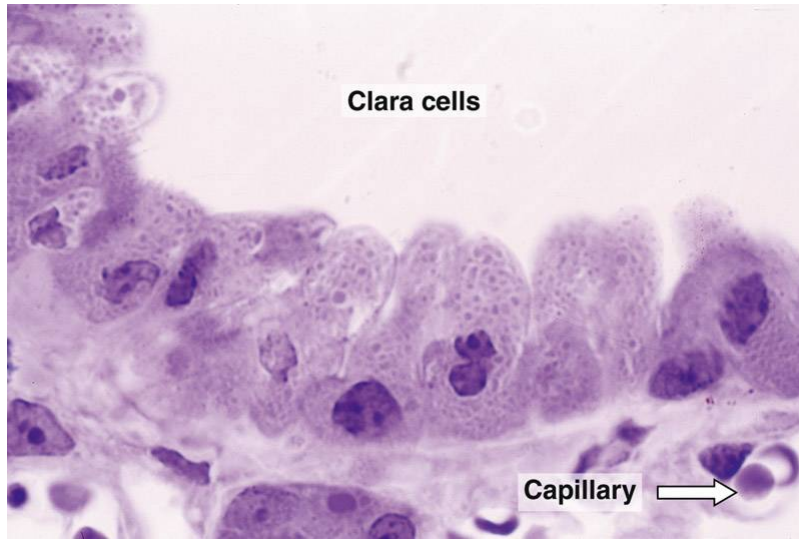


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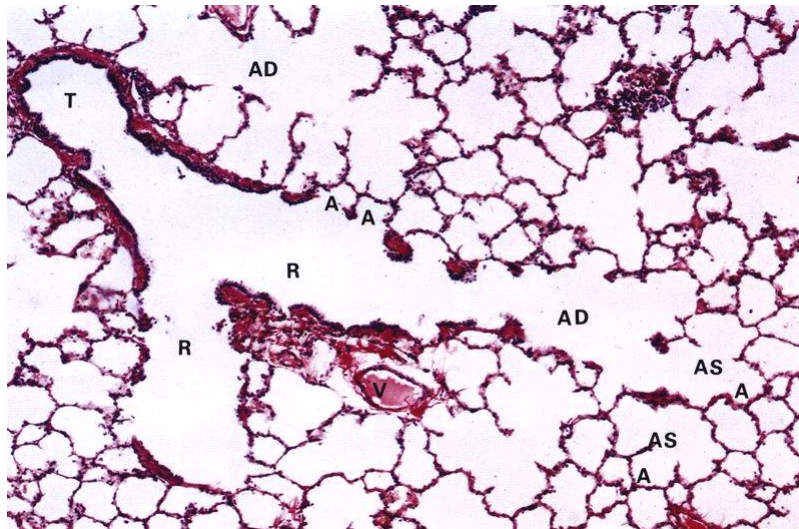
Basic Histology, Junqueira and Carneiro, 2003





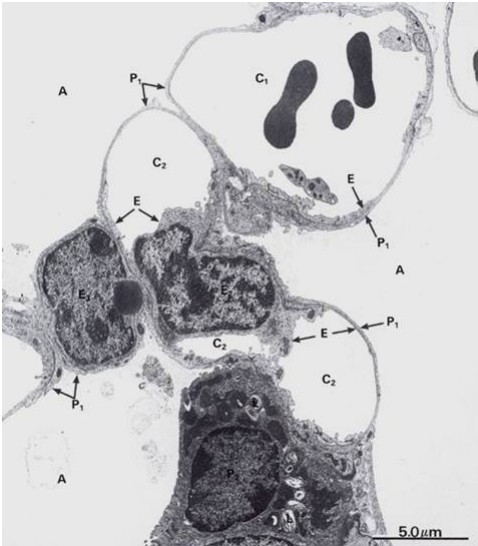
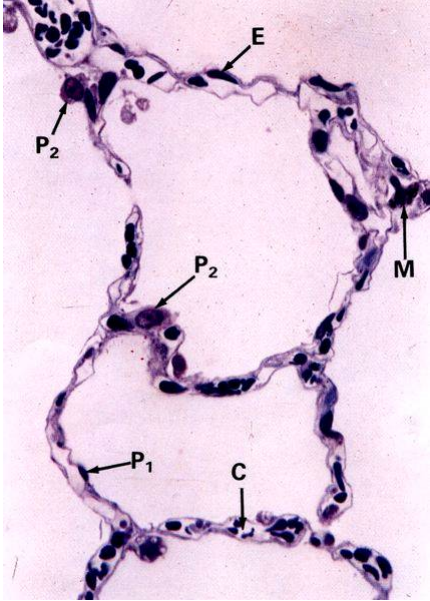
Basic Histology, Junqueira and Carneiro, 2003

Terminal Portion of Respiratory Tree

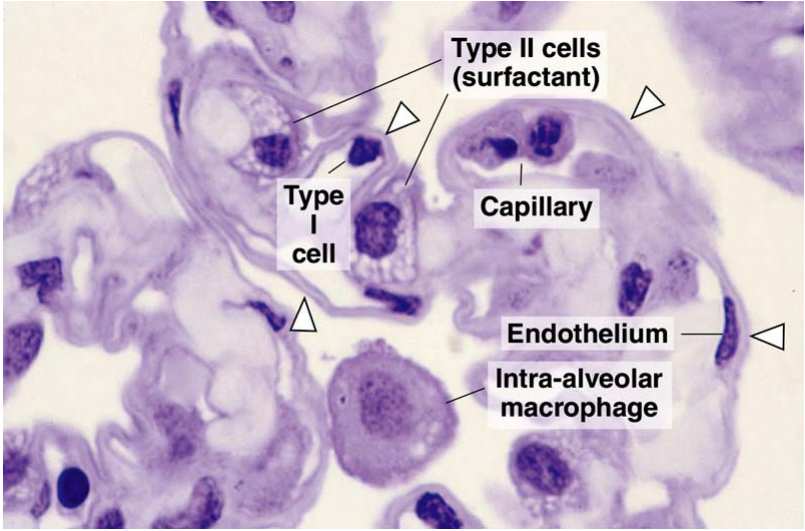


Wheater's Functional Histology, 2000

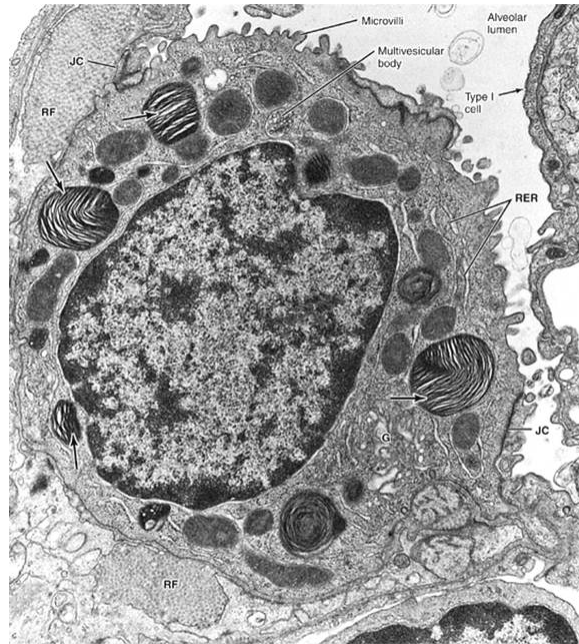
Alveoli



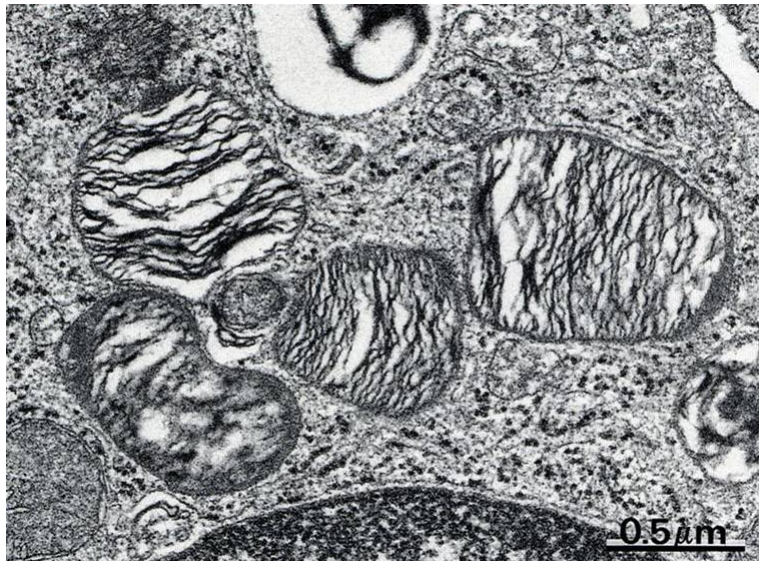
Wheater's Functional Histology, 2000



Type II Pneumocyte

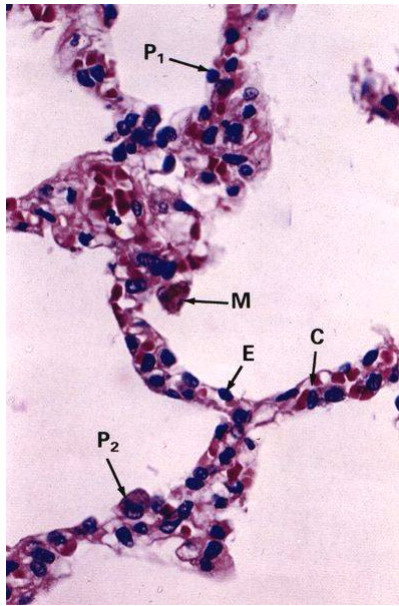


Basic Histology, Junqueira and Carneiro, 2003

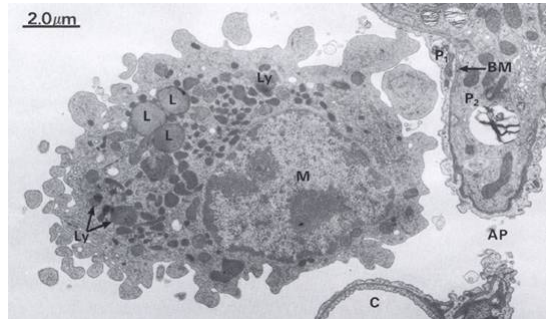


Lamellar Bodies – Type II Pneumocyte

Wheater's Functional Histology, 2000



Alveolar Macrophage



Wheater's Functional Histology, 2000