Simple Squamous Epithelium

(Bowman's capsule- kidney)



Simple cuboidal epithelium



Non-ciliated simple columnar epithelium Ciliated simple columnar epithelium



Pseudostratified columnar epithelium non ciliated



Pseudostratified columnar epithelium ciliated

Sites: Nose- Trachea



Stratified squamous epithelium

Non Keratinized



Keratinized



Oesophagus- vagina

skin

Transitional epithelium



(urinary bladder - empty)

Microvilli



Ion transporting cell



B= Brush border N= Nucleus

M= Mitochondria

Protein secreting cell



Goblet cell



Steroid secreting cell



EM of Fibroblast and collagen fibers



Macrophage)M.E)



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MAST CELL STAINED WITH TOLUIDINE BLUE

The granules are metachromatic stained red with toluidine blue



EM PICTURE OF MAST CELL



Plasma cell (Negative Golgi image)



EM PICTURE OF PLASMA CELL

RER

Clock face nucleus

LOOSE C.T



DENSE REGULAR C.T

Collagen fibers



DENSE IRREGULAR C.T



ELASTIC C.T



RETICULAR C.T (STAINED BLACK WITH SILVER STAIN)



UMBILICAL CORD (MUCOID C.T)



UNILOCULAR ADIPOSE TISSUE:



MULTILOCULAR (BROWN) ADIPOSE TISSUE

Round nuclei

Multiple fat droplets (vacuoles)

Hyaline cartilage

Perichondrium (collagen I)

Chondrocytes In lacuna

> Perichondrium (collagen I)



Elastic cartilage



FIBROCARTILAGE

Collagen bundles (collagen I)



Compact Bone (ground preparation)



Decalcified Compact Bone

Slide 69 Bone, Femur

-Osteoclasts

Howship's lacuna

Decalcified Compact Bone

HAVERSIAN CANALS

OSTEOCYTES IN LACUNAE

PERIOSTEUM

Decalcified Compact Bone



Cancellous Bone



Cancellous Bone

Slide 69 Bone,

Osteoblasts

Osteoid

epiphyseal plate



R= resting zone P= proliferative zone H= hypertrophic zone C-= calcifiction zone O= ossification zone

Red Blood Cells (RBCS)



RBCs that display rounded biconcave discs.

Reticulocyte (brilliant cresyl blue)



Platelets



1-Neutrophils with segmented nucleus (N) and neutrophilic granules.



2- Eosinophils with horse-shoe shaped nucleus (N) and eosinophilic granules.



3- Basophils with U or S shaped nucleus and basophilic granules.



Agranulocytes

1- Lymphocytes: with **large** nucleus and basophilic thin rim of cytoplasm.



Agranulocytes

2- Monocytes: with **kidney-shaped** eccentric nucleus and pale basophilic cytoplasm.



TS skeletal muscle

Endomysium



TS skeletal muscle



L.S skeletal muscle



EM

LS skeletal ms showing sarcomere





Cardiac muscle



EM of cardiac muscle with intercalated disc



Cardiac muscle of the atrium contain electron dense membranous granules near the poles of the nuclei. These granules contain polypeptide diuretic hormones as atrial natriuretic factor (ANF).



Moderator band



1= purkinje cells
2= C.t
3= Ordinary cardiac
muscle cells

Smooth Muscles

