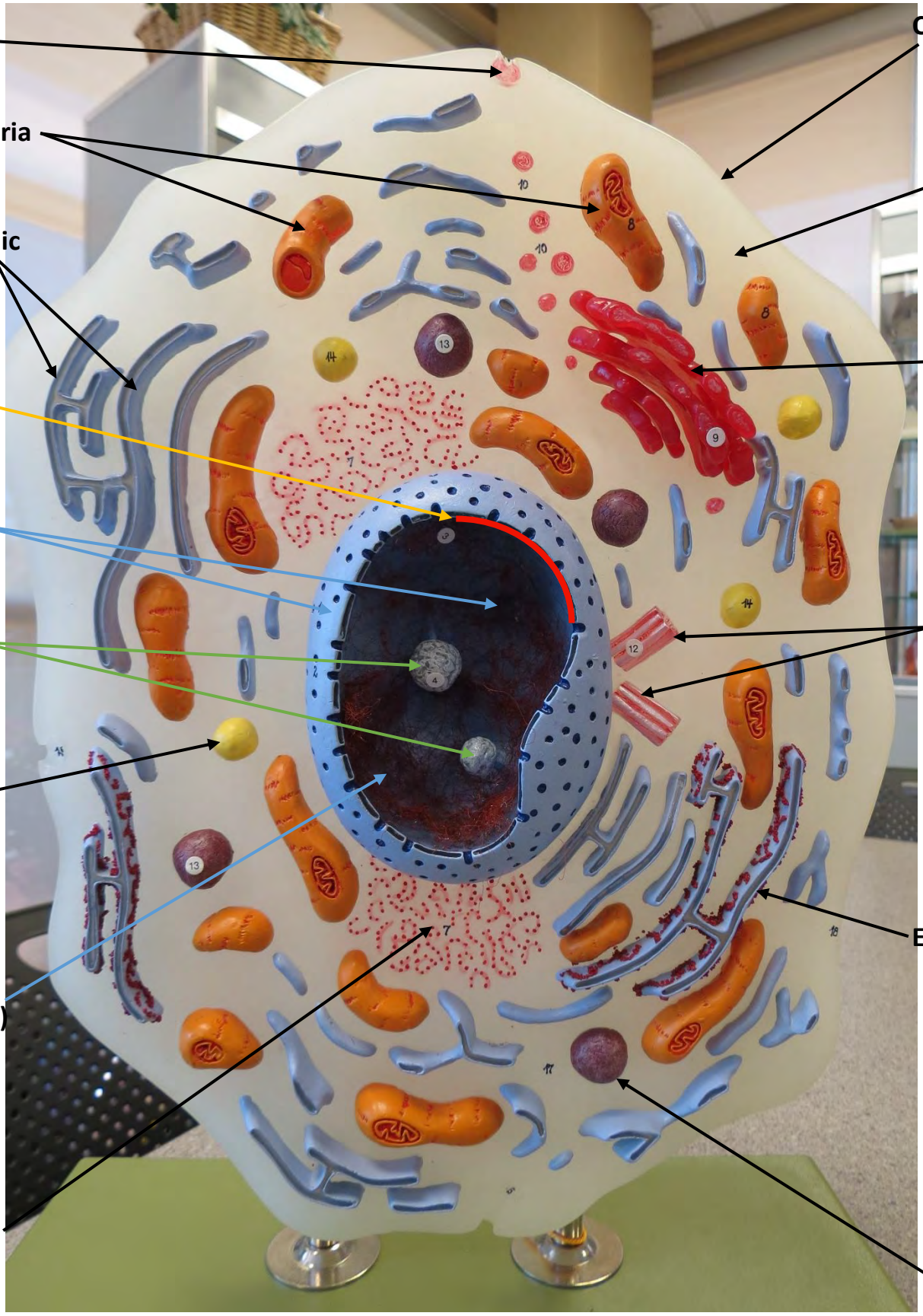
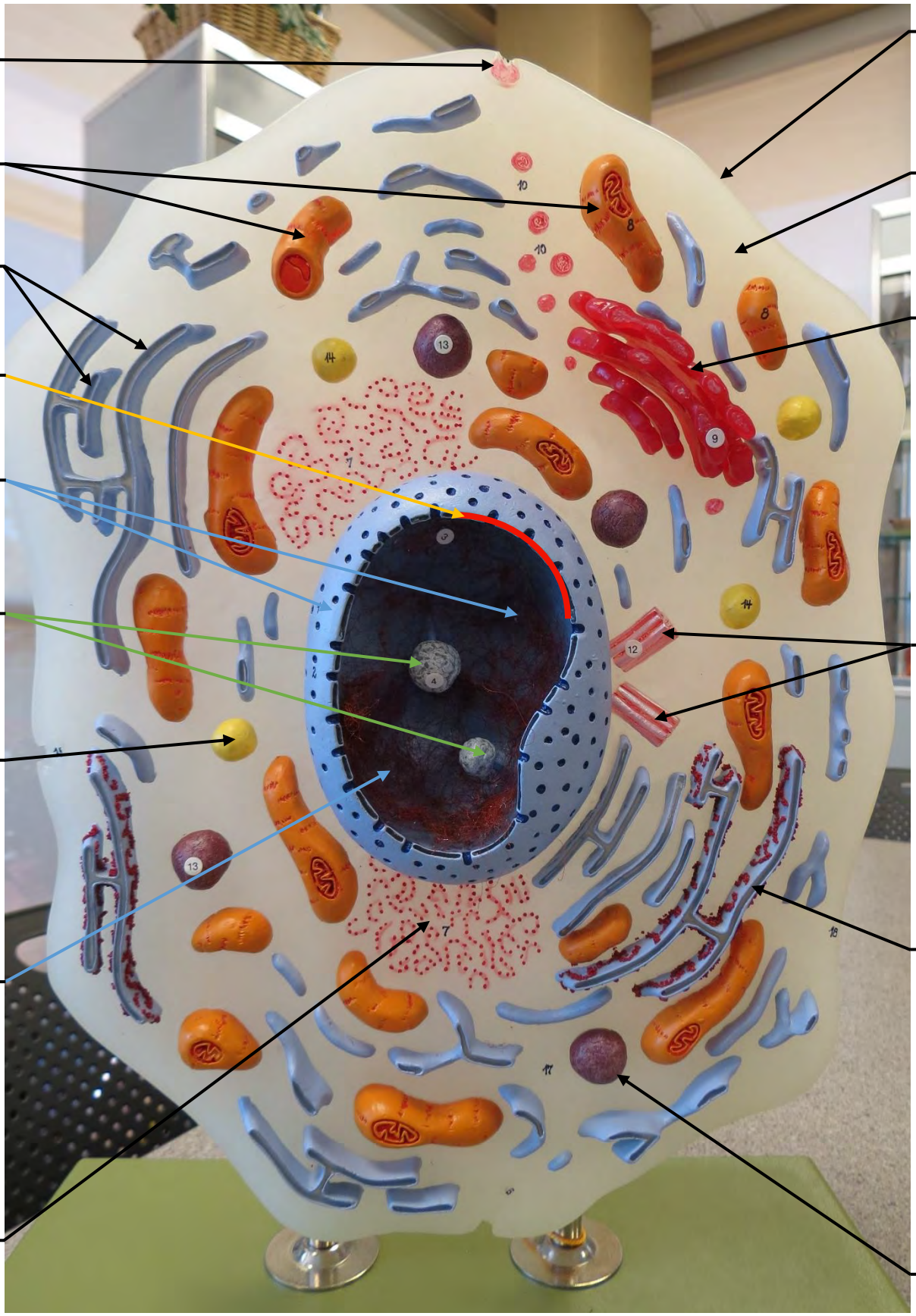
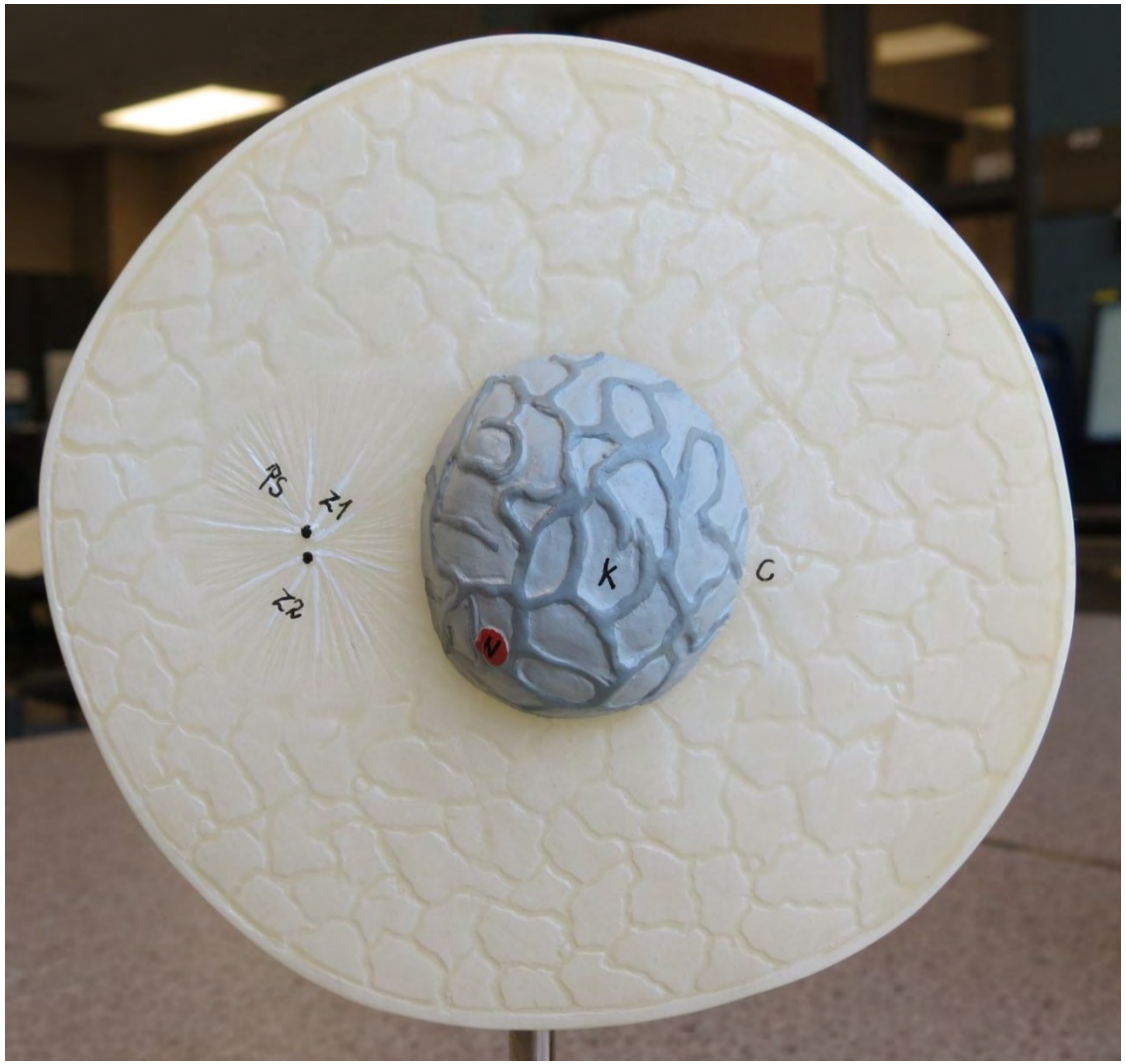
Cell Model


Secretory Vesicle
Mitochondria
Smooth Endoplasmic Reticulum
Nuclear Envelope
Nucleus
Nucleoli
Fat Vacuole
Chromatin (fuzzy stuff)
Ribosomes
Cell (plasma) Membrane
Cytoplasm
Golgi Apparatus
Centrioles
Rough Endoplasmic Reticulum (Note Ribosomes)
Lysosome

Cell Model



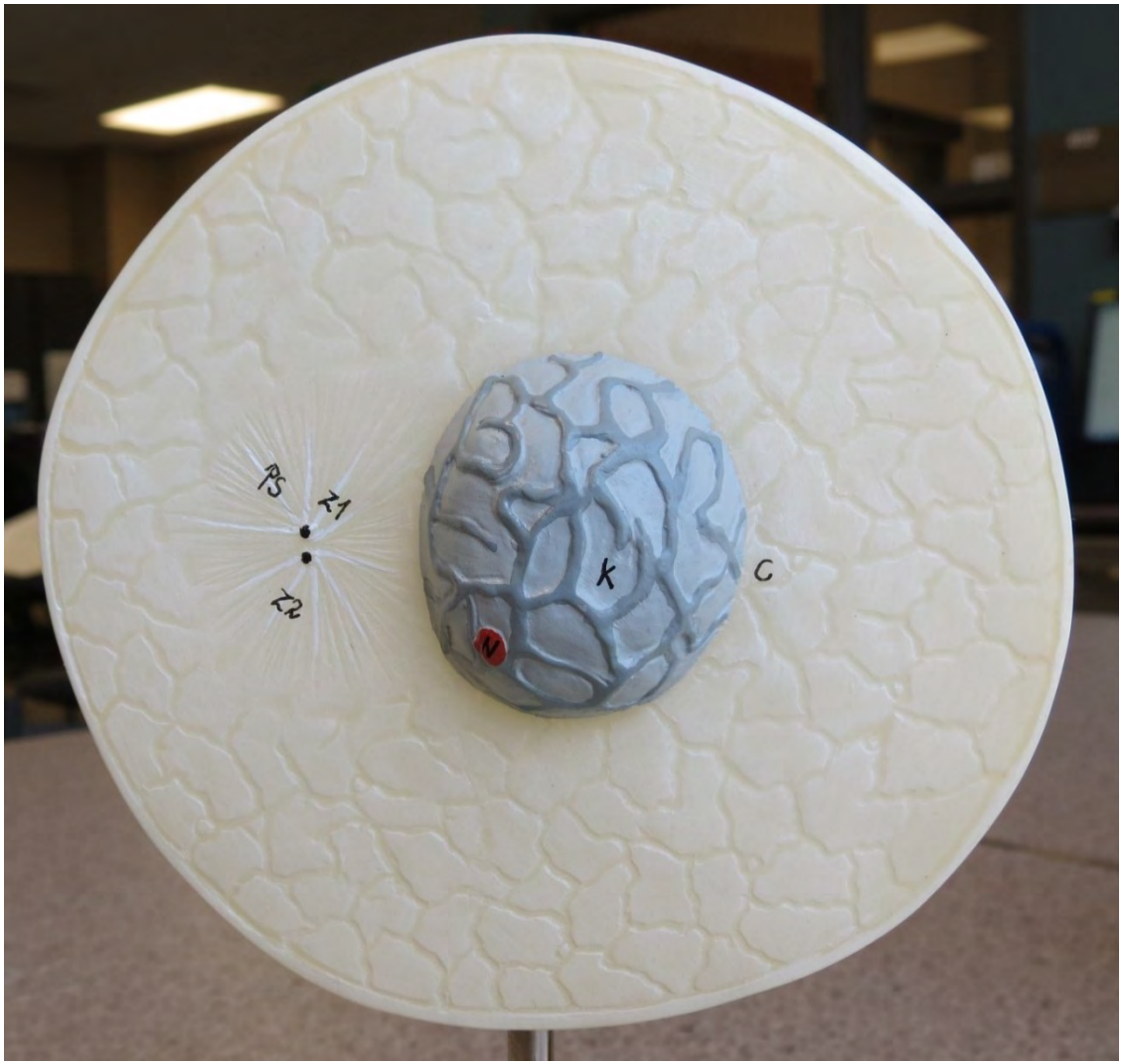
MITOSIS MODEL



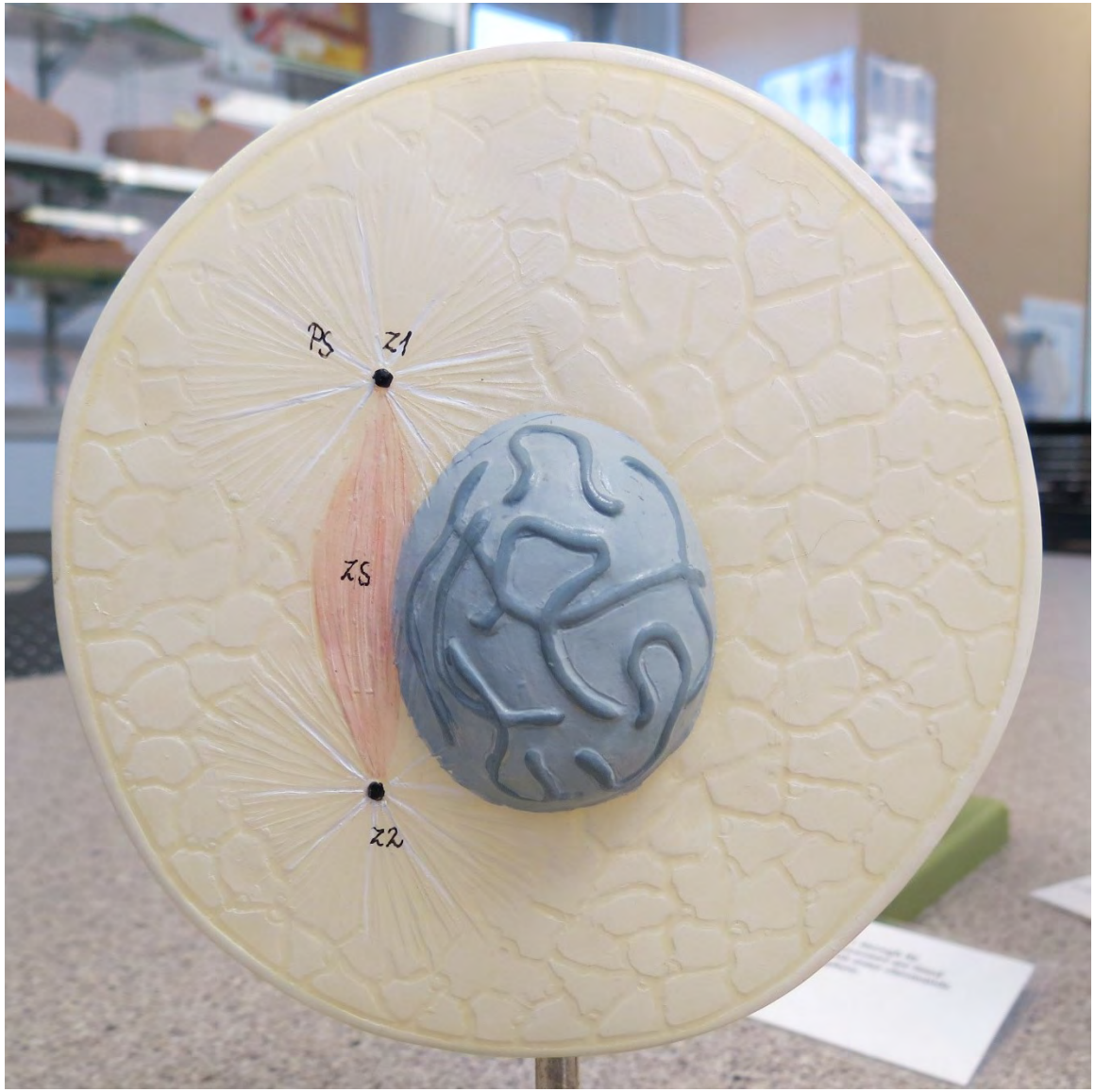
Nucleus is intact. Centrioles are close together

Interphase

MITOSIS MODEL



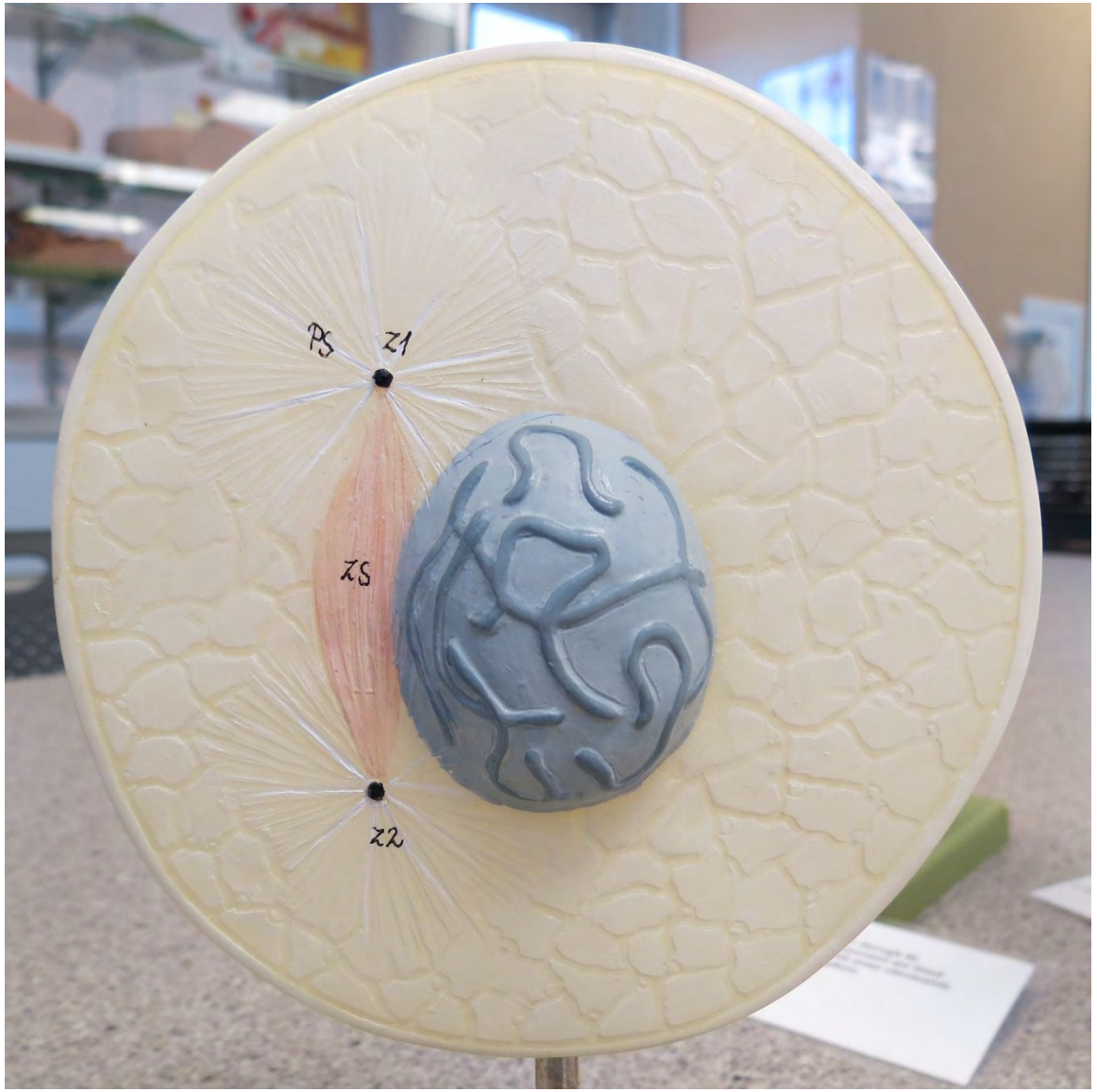
MITOSIS MODEL



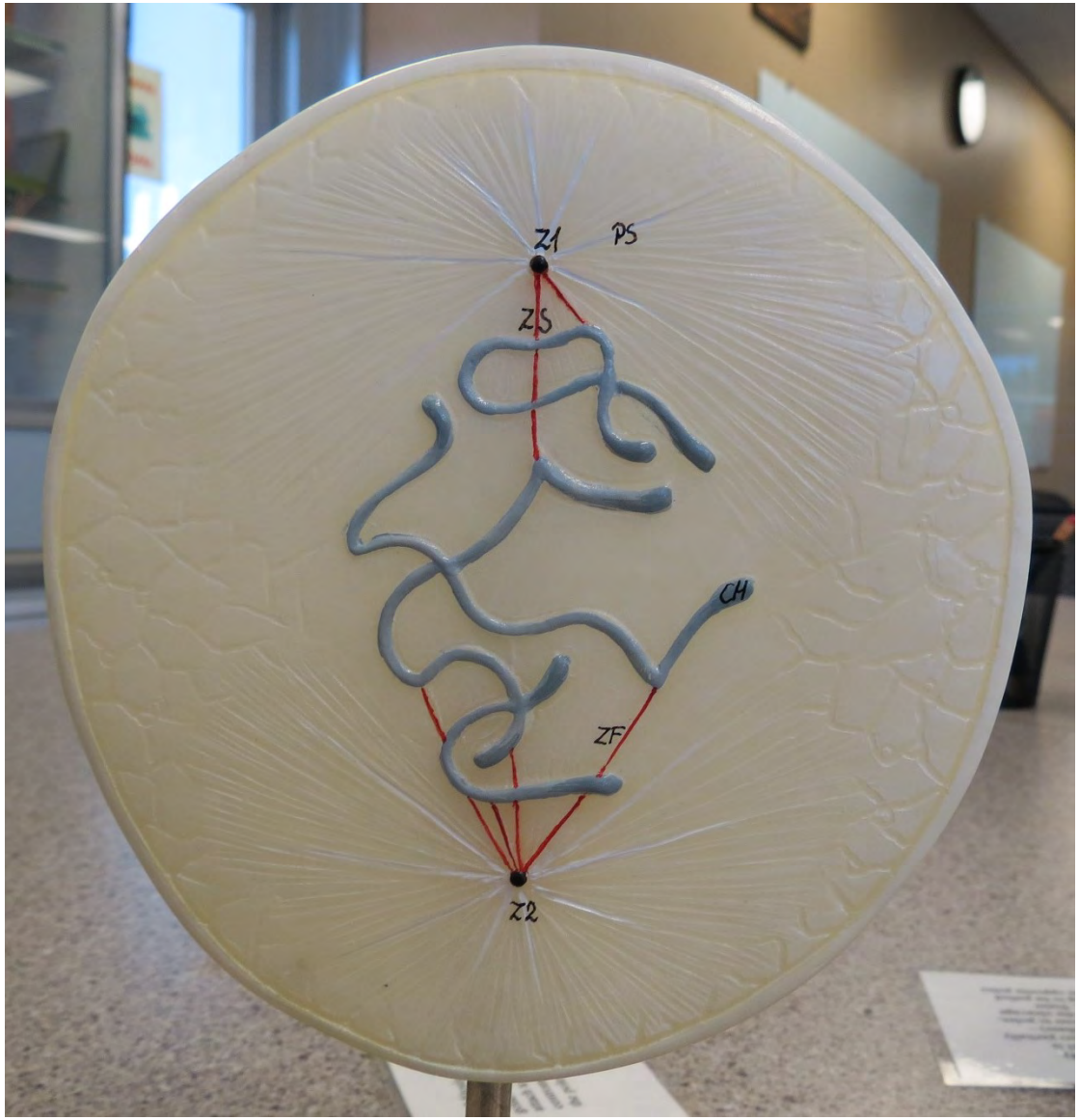
Early Prophase

Centrioles are moving apart. Nucleus (with chromatin) is still intact.

MITOSIS MODEL



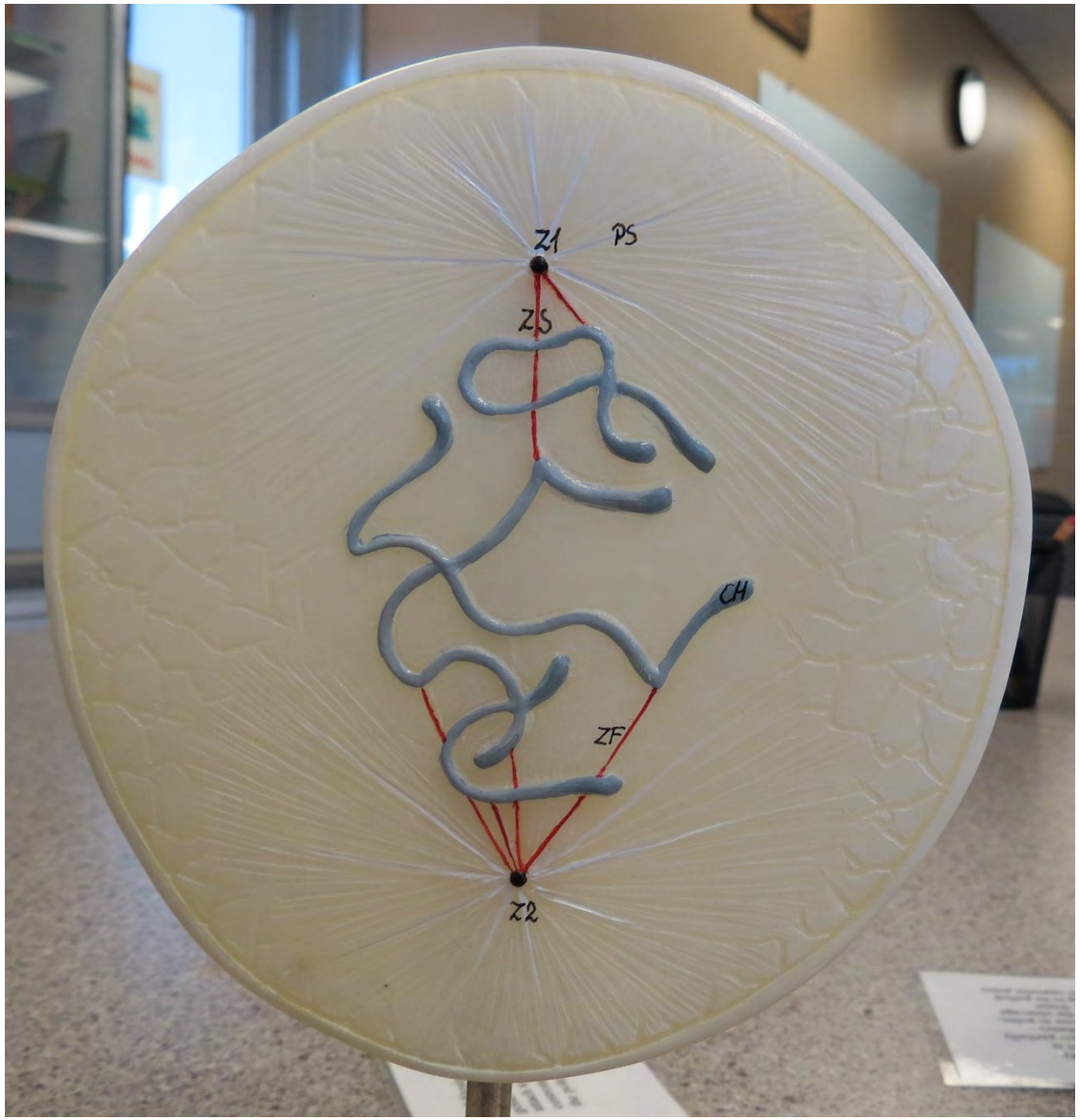
MITOSIS MODEL



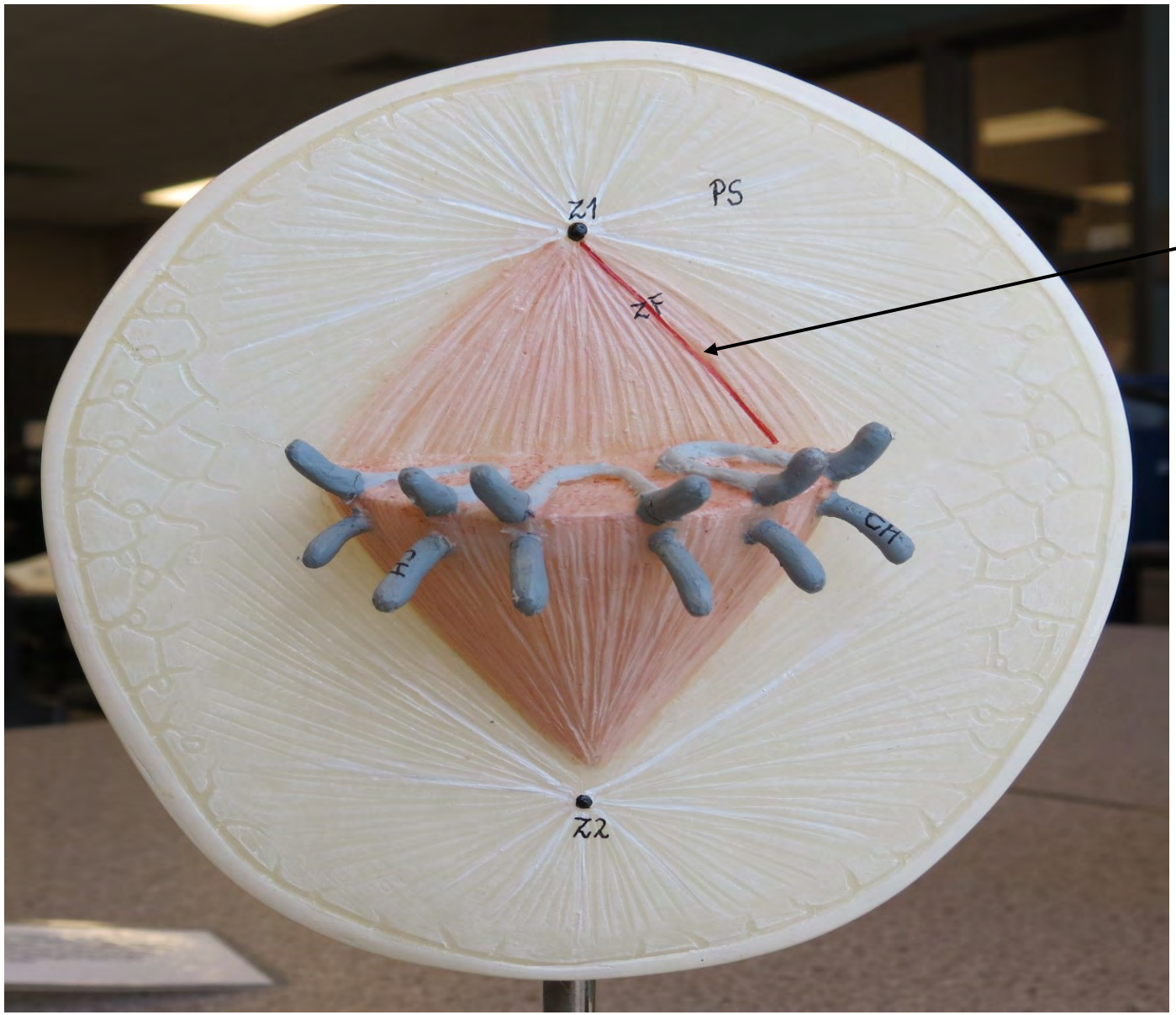
Centrioles are at opposite ends. Nucleus breaks apart, forming chromosomes.

Late Prophase

MITOSIS MODEL



MITOSIS MODEL

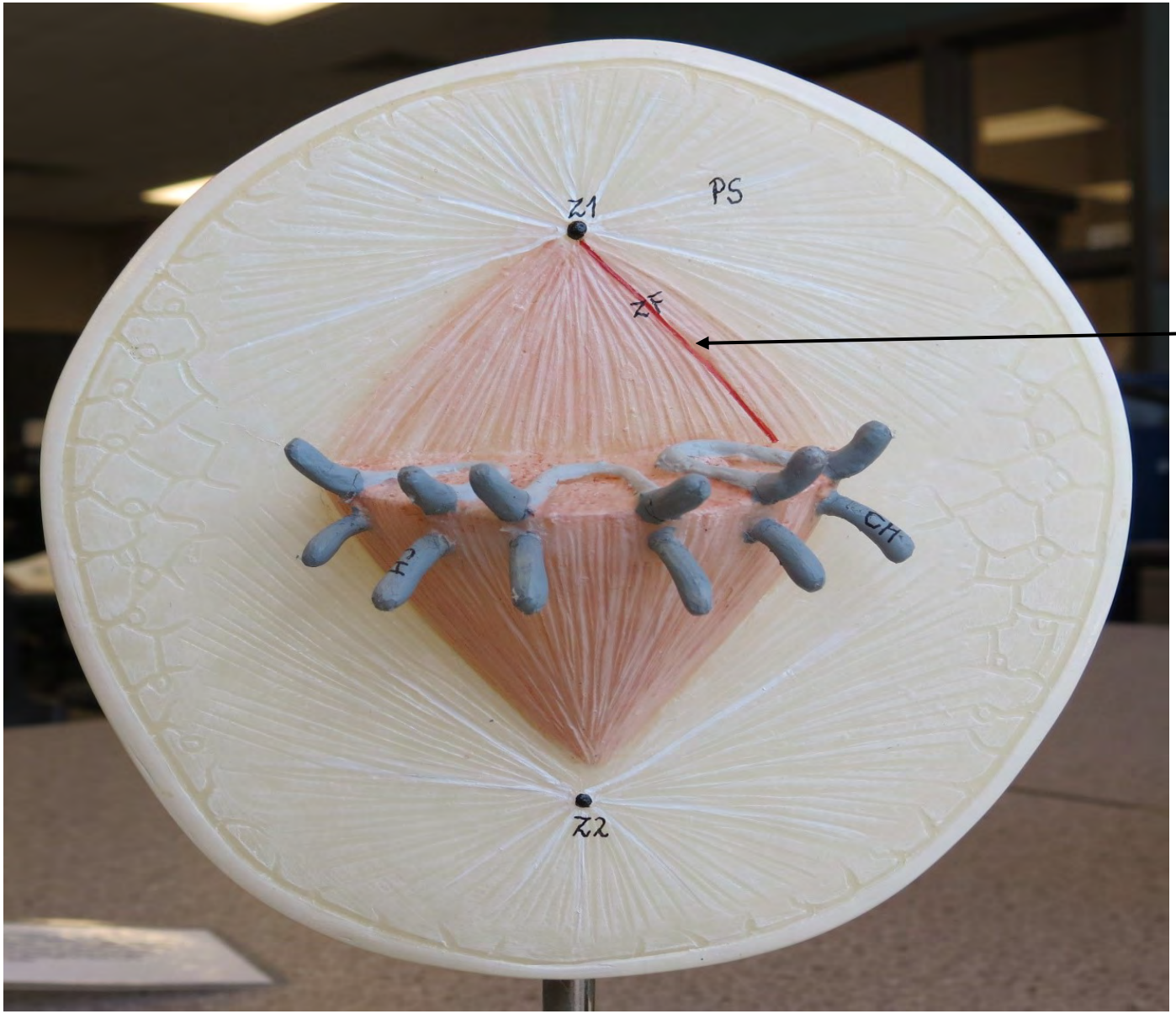


Spindle Fiber

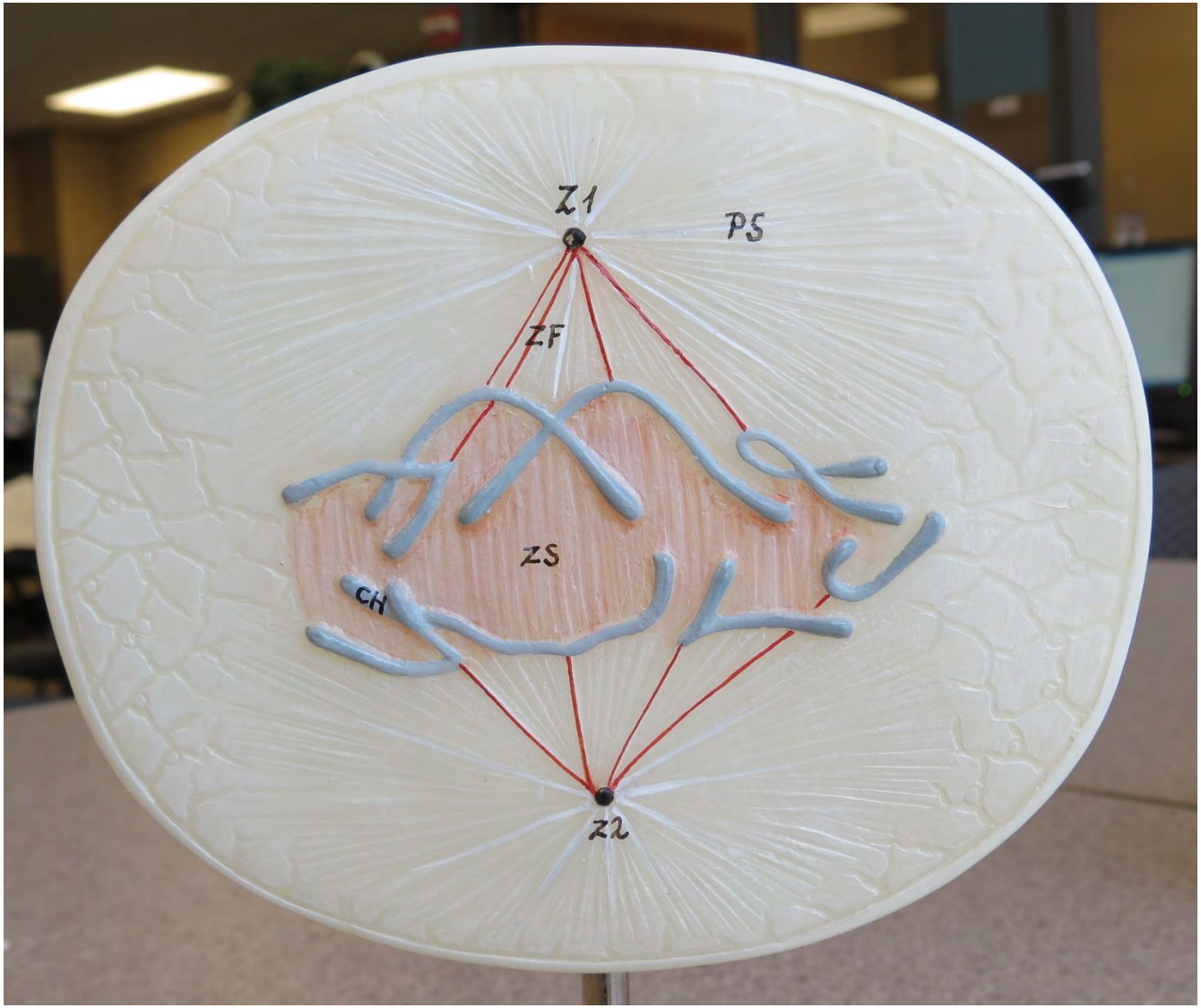
Chromosomes are aligned in the middle of the cell forming sister chromatids.

Metaphase

MITOSIS MODEL



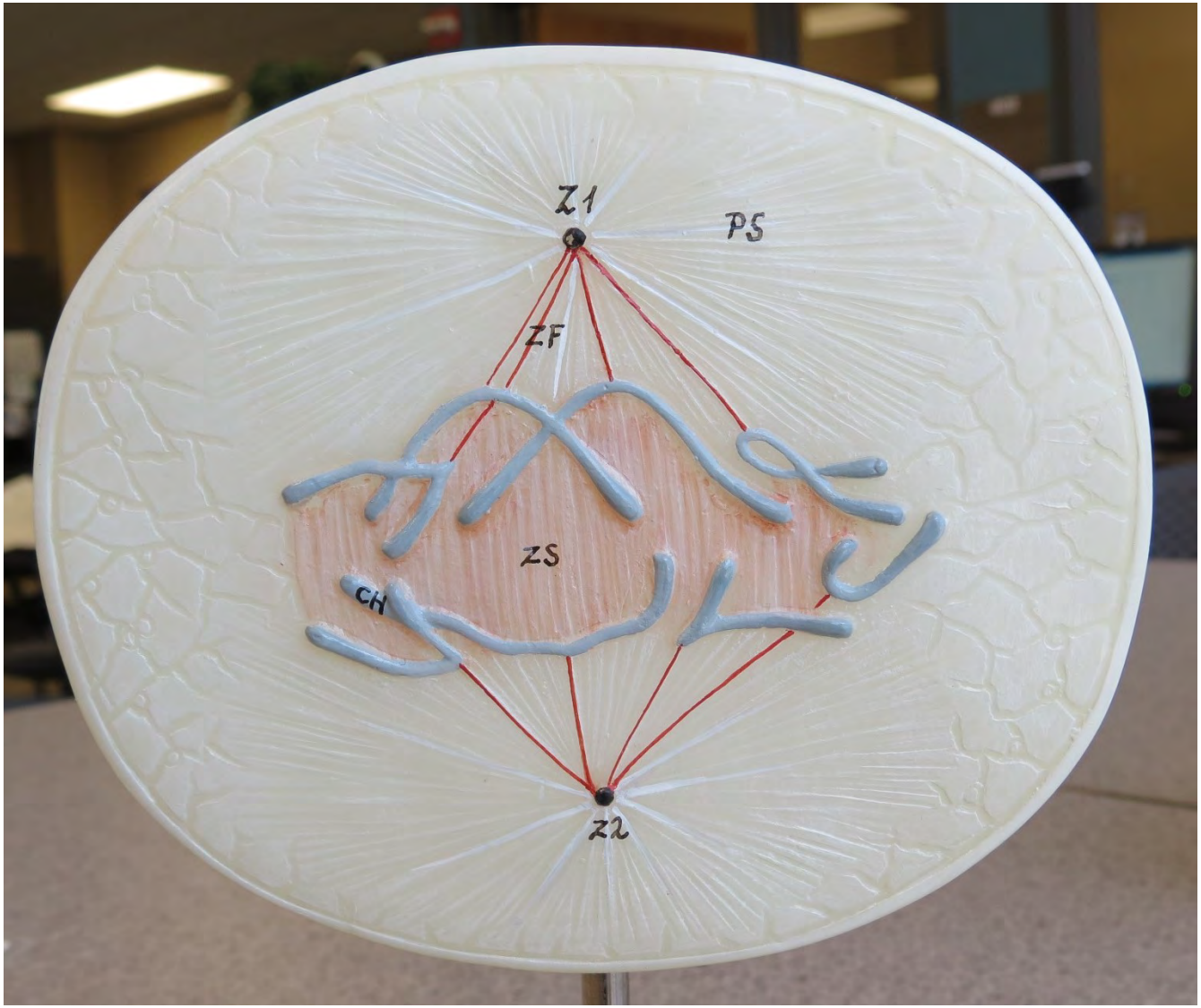
MITOSIS MODEL



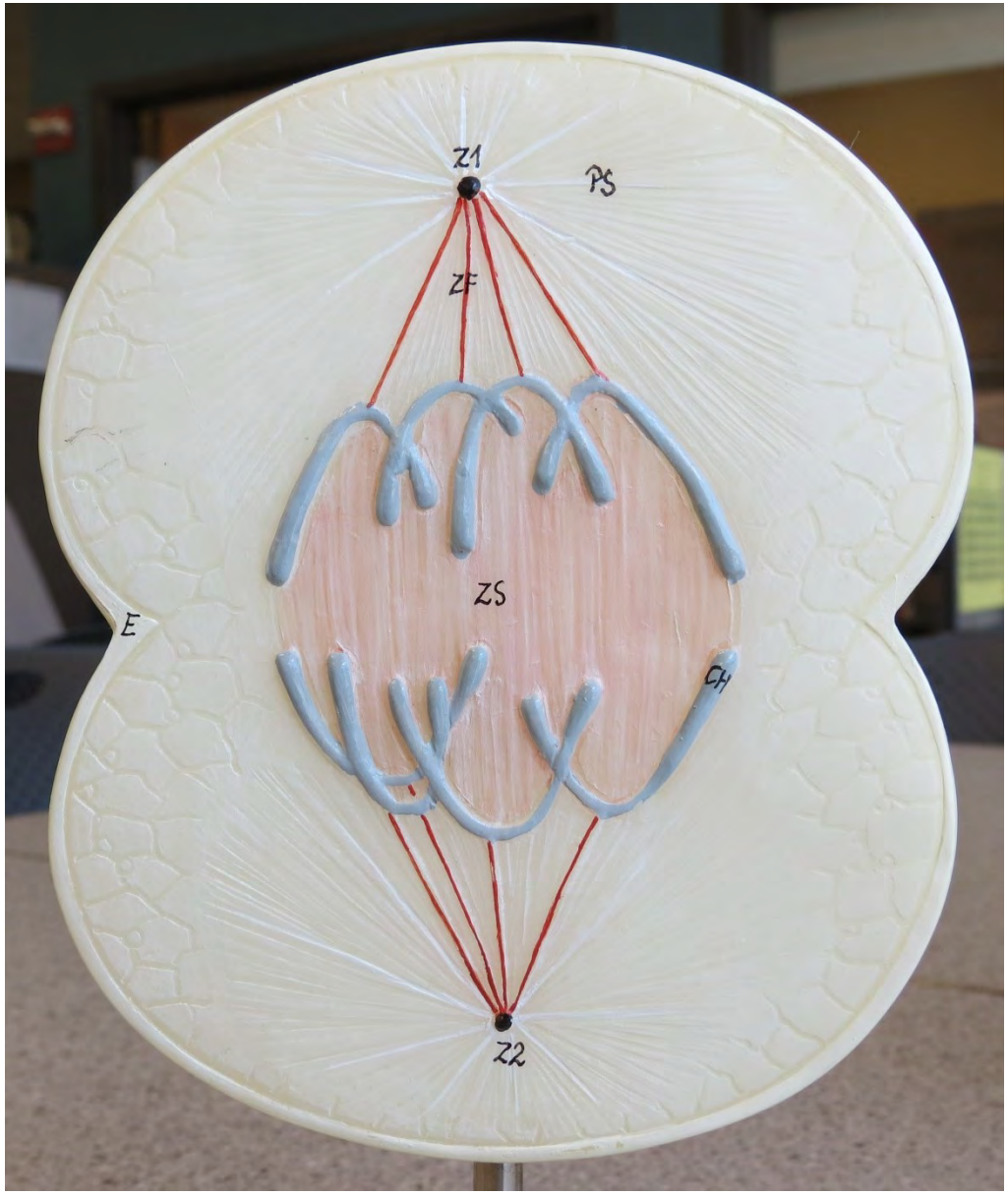
Sister chromatids separate forming daughter chromosomes.

Anaphase

MITOSIS MODEL



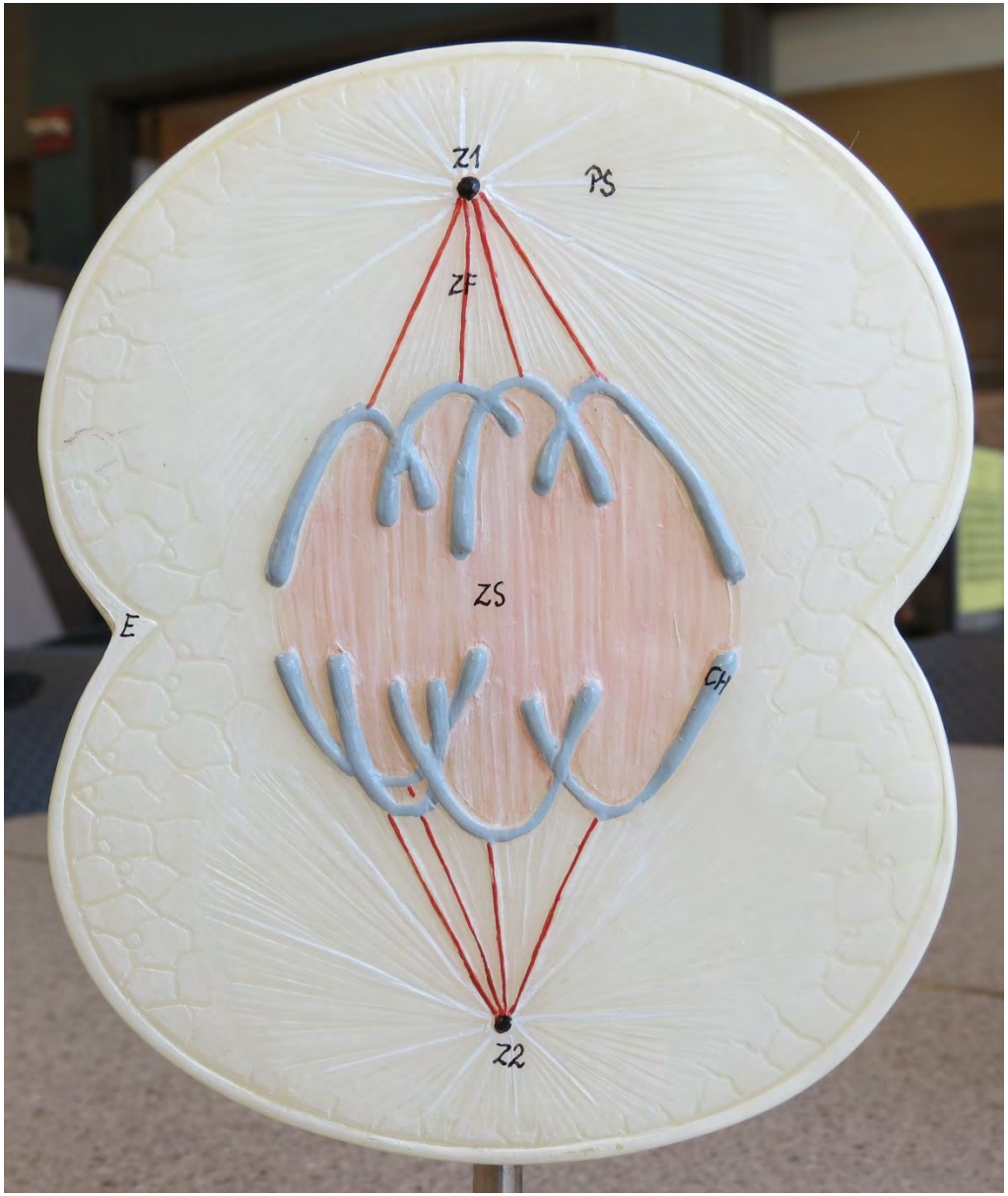
MITOSIS MODEL



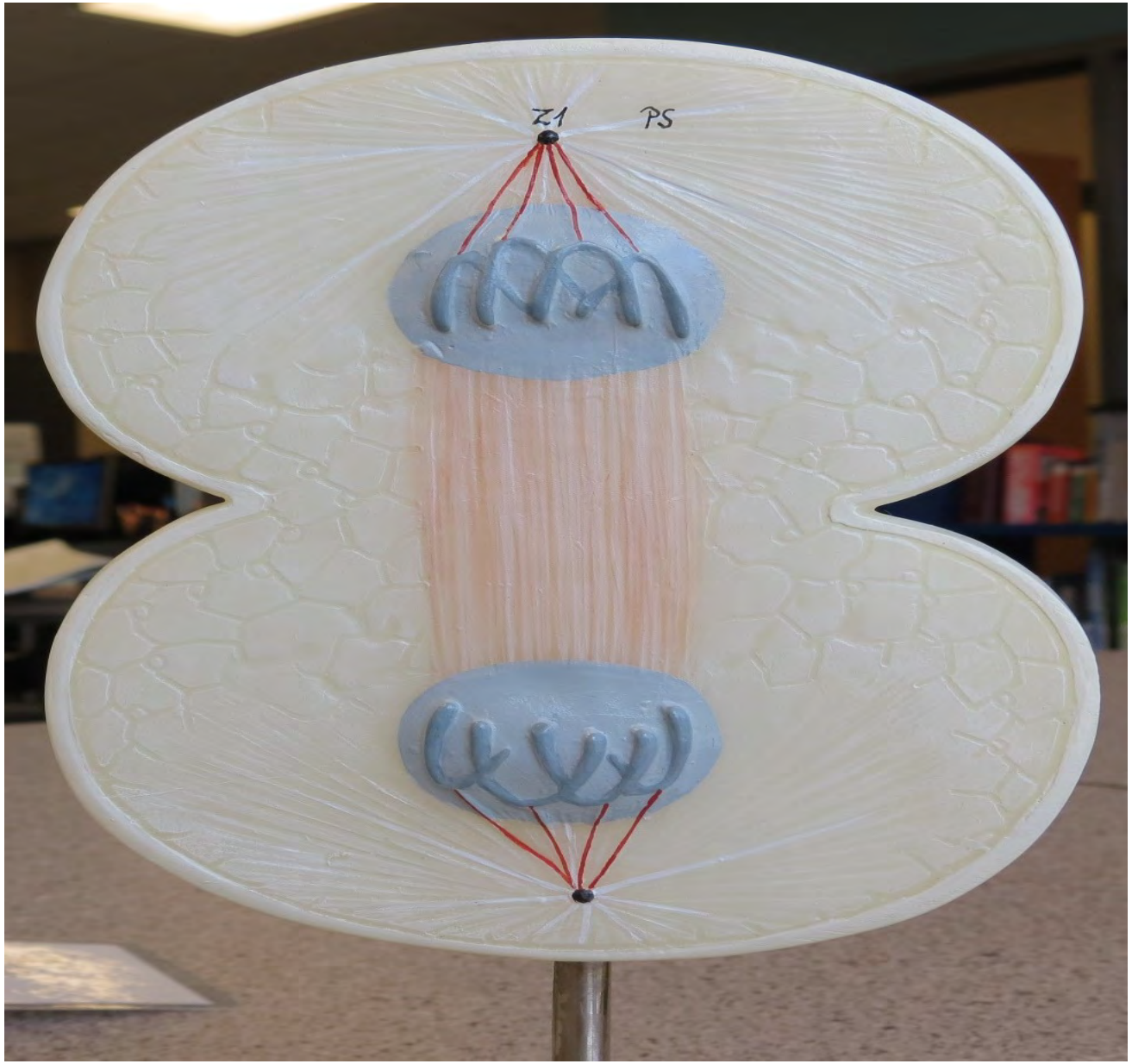
Daughter chromosomes become further separated.

Late Anaphase

MITOSIS MODEL



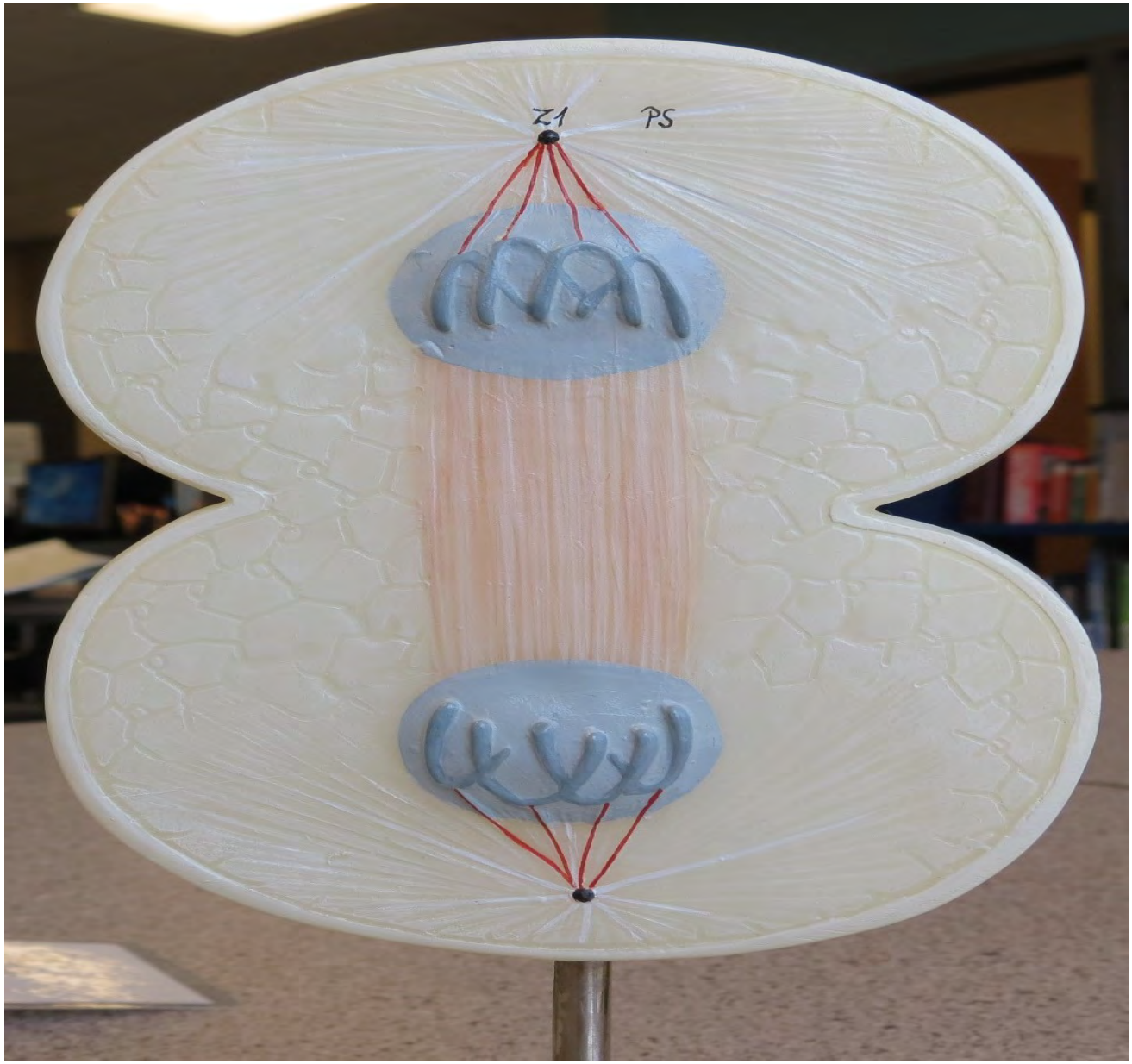
MITOSIS MODEL



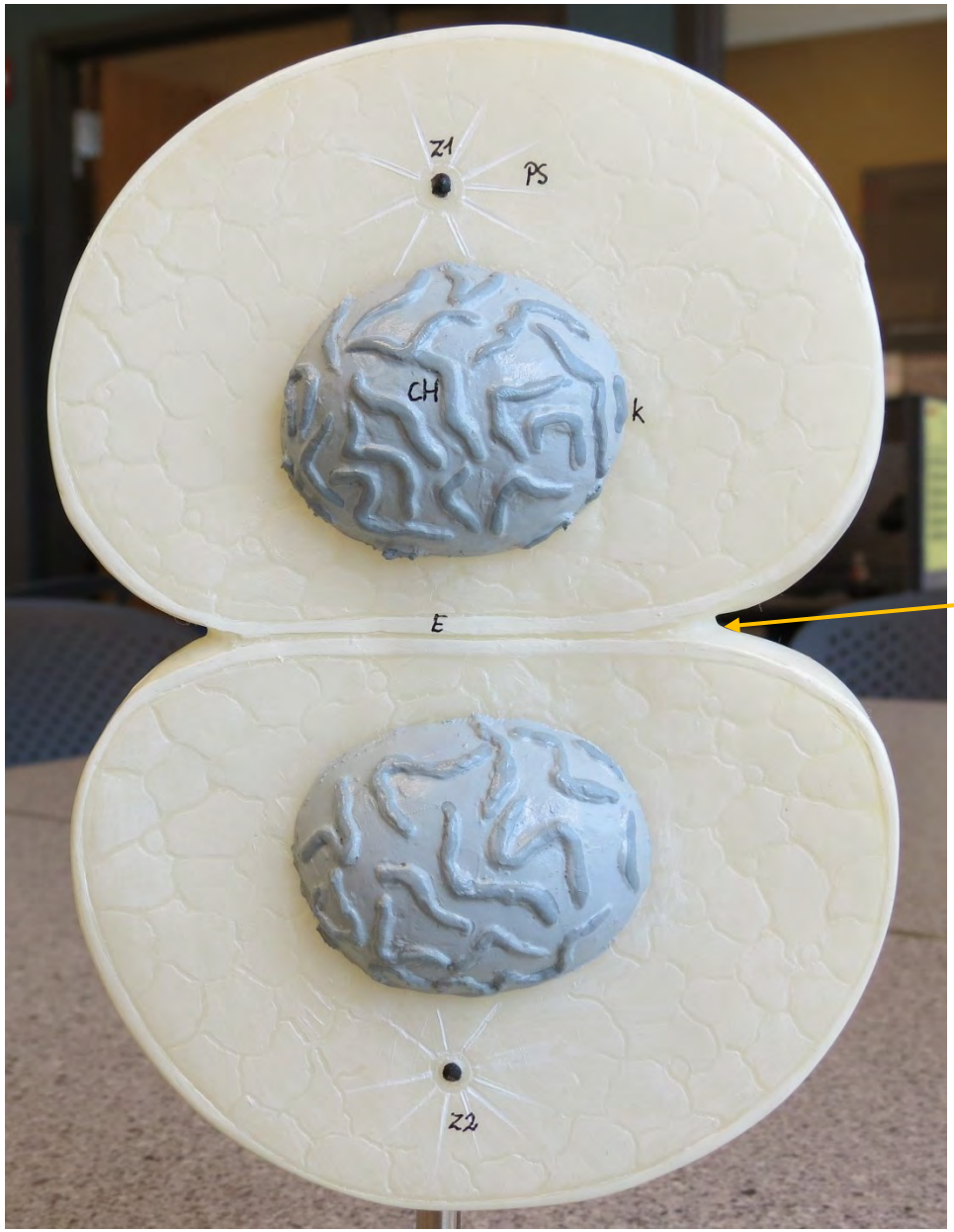
Chromosomes have completed their separation forming new nuclei. Cytokinesis causes cleavage furrow.

Telophase

MITOSIS MODEL



MITOSIS MODEL

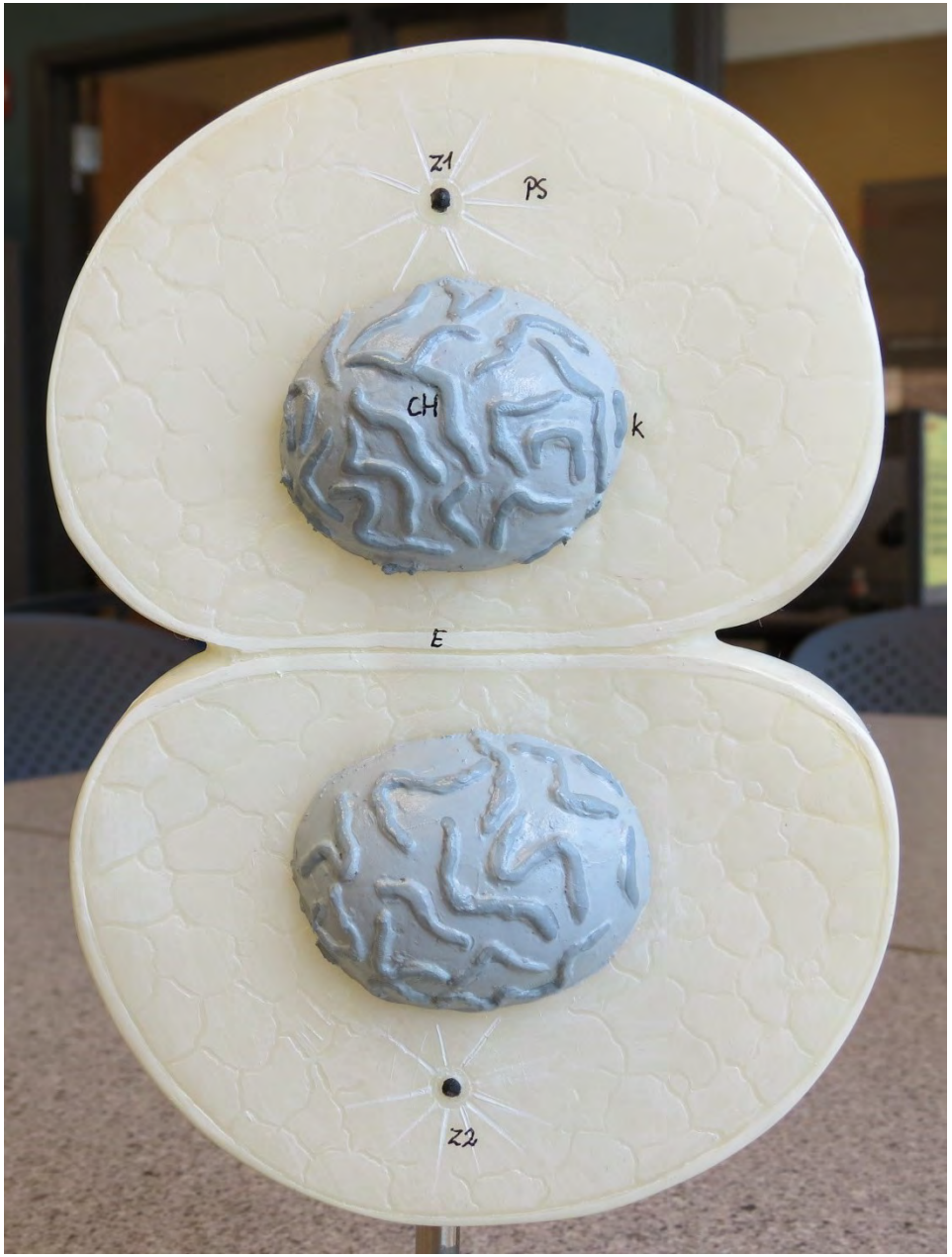


(Note cell boundary between cells.)

Cytokinesis has been completed. We now have 2 individual cells.

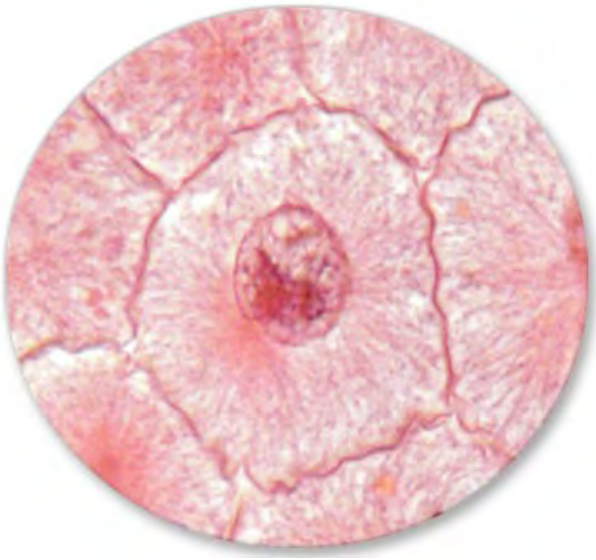
Daughter Cells/ Interphase

MITOSIS MODEL

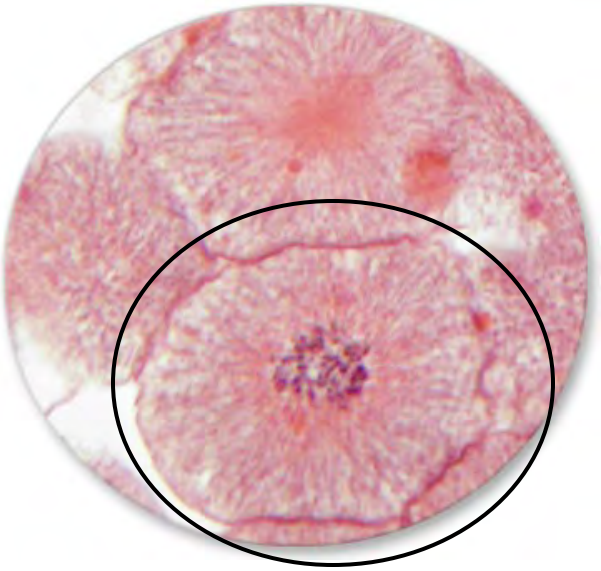


MITOSIS SLIDES

INTERPHASE



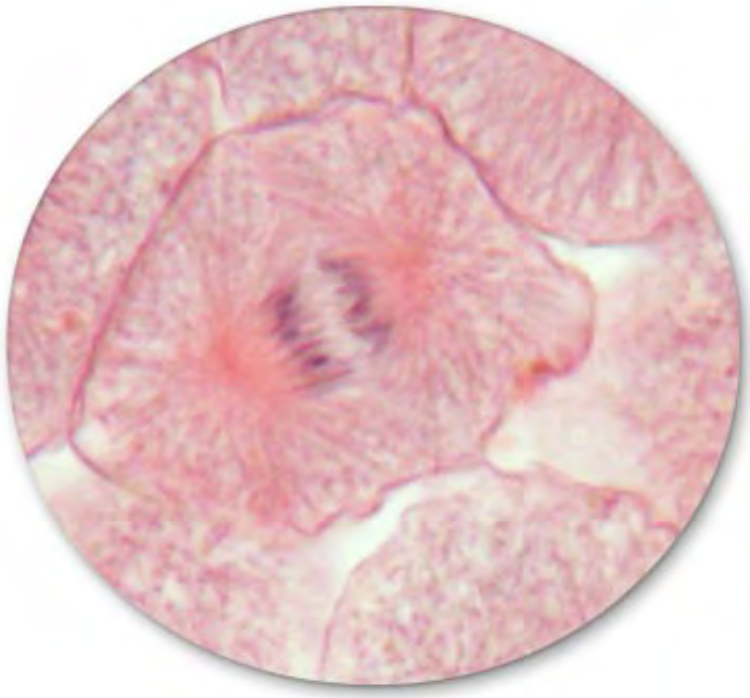
EARLY PROPHASE



LATE PROPHASE

MITOSIS SLIDES

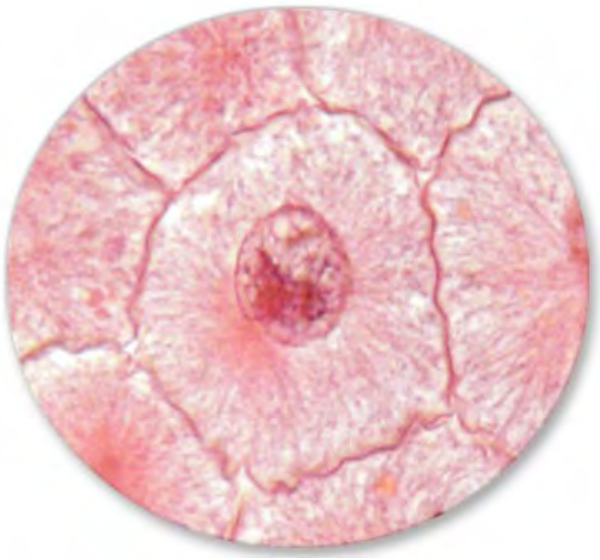
METAPHASE

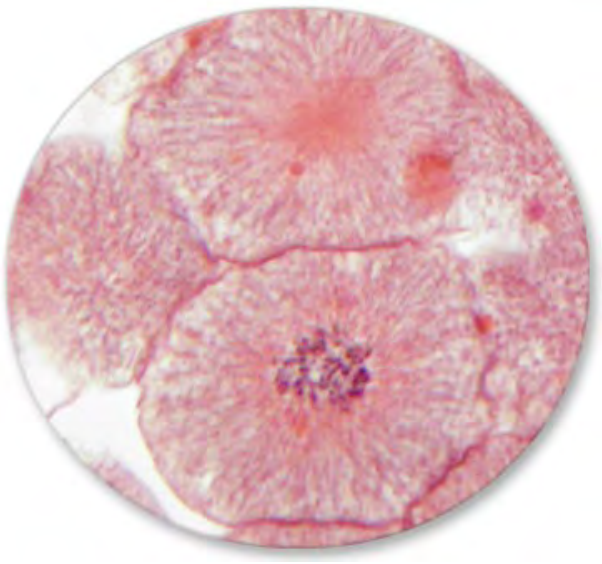


ANAPHASE

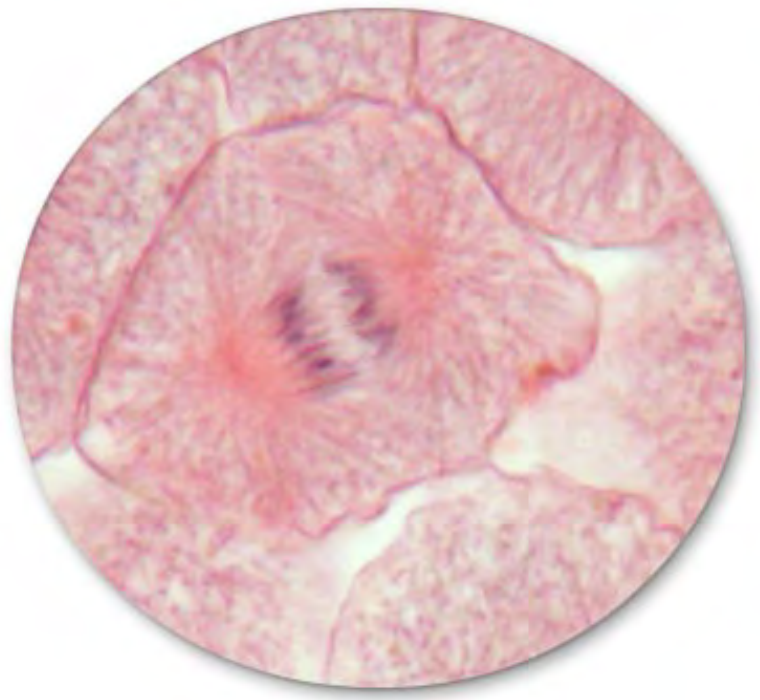
MITOSIS SLIDES

TELOPHASE





_____ _____

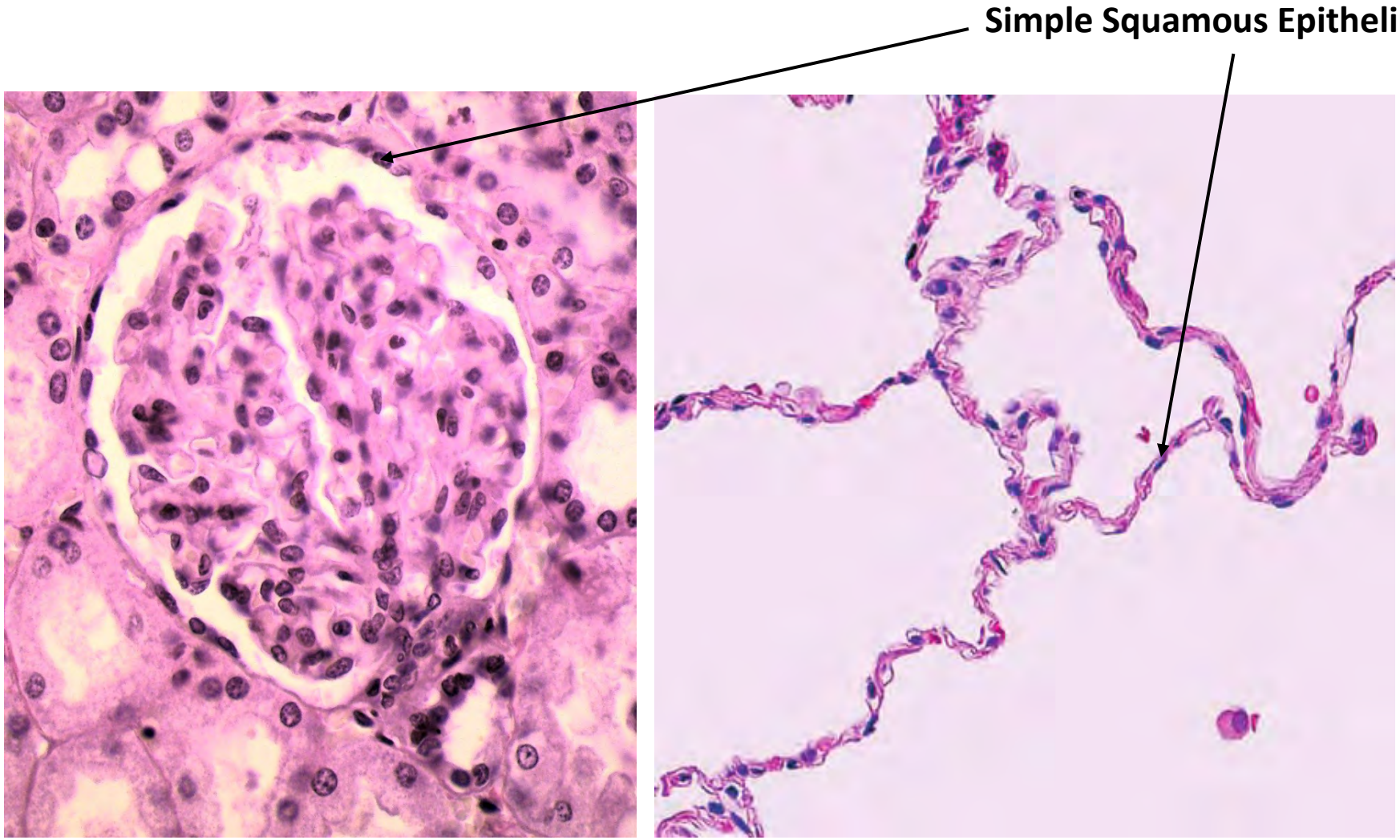


_____ _____

SIMPLE SQUAMOUS EPITHELIUM

Function: Diffusion and filtration

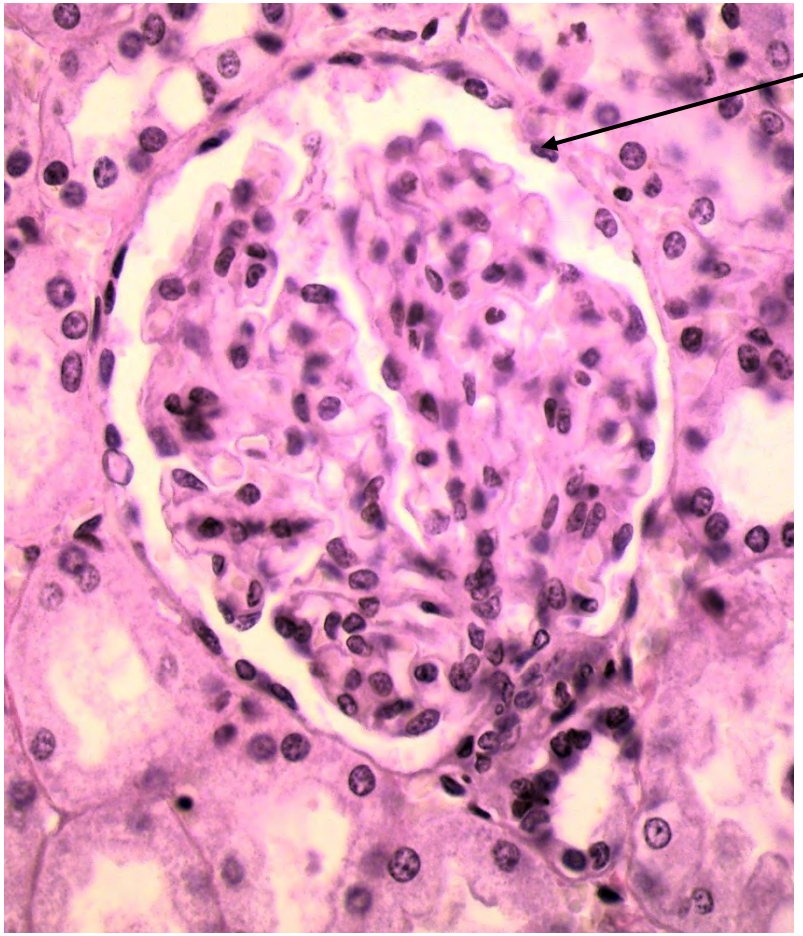
Location: Lung alveoli, kidney glomerulus, capillary walls

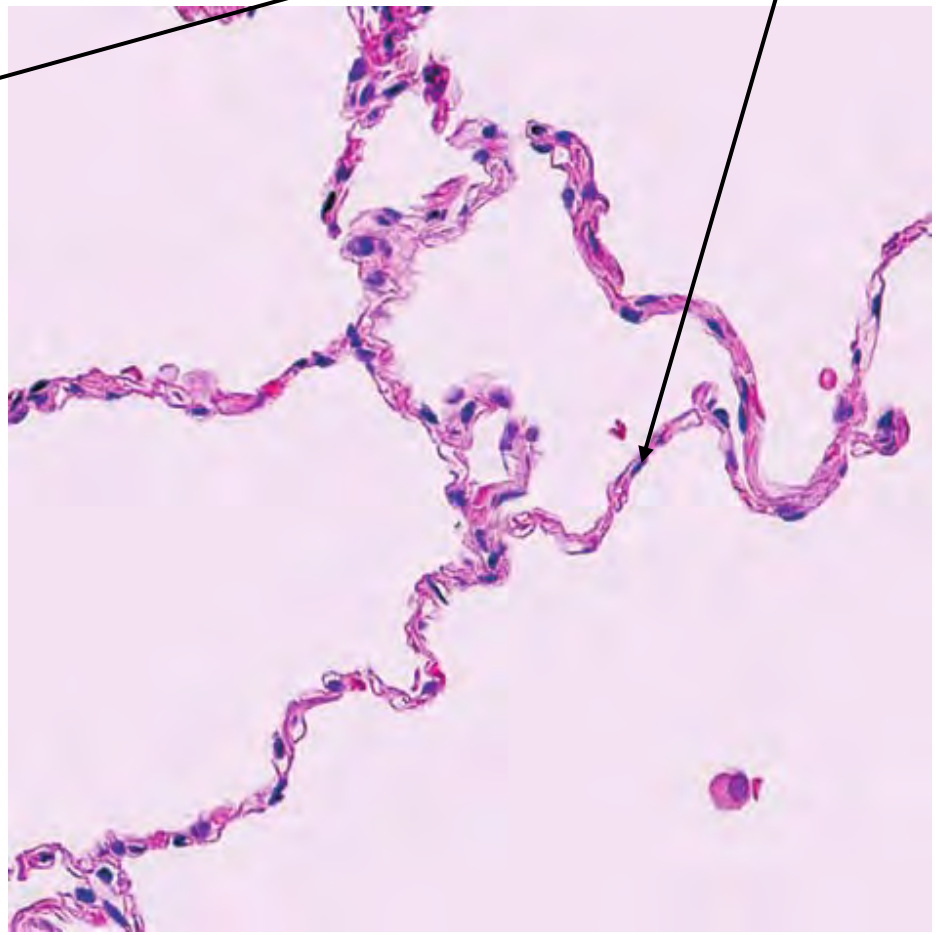


_____

Function: _____ and _____

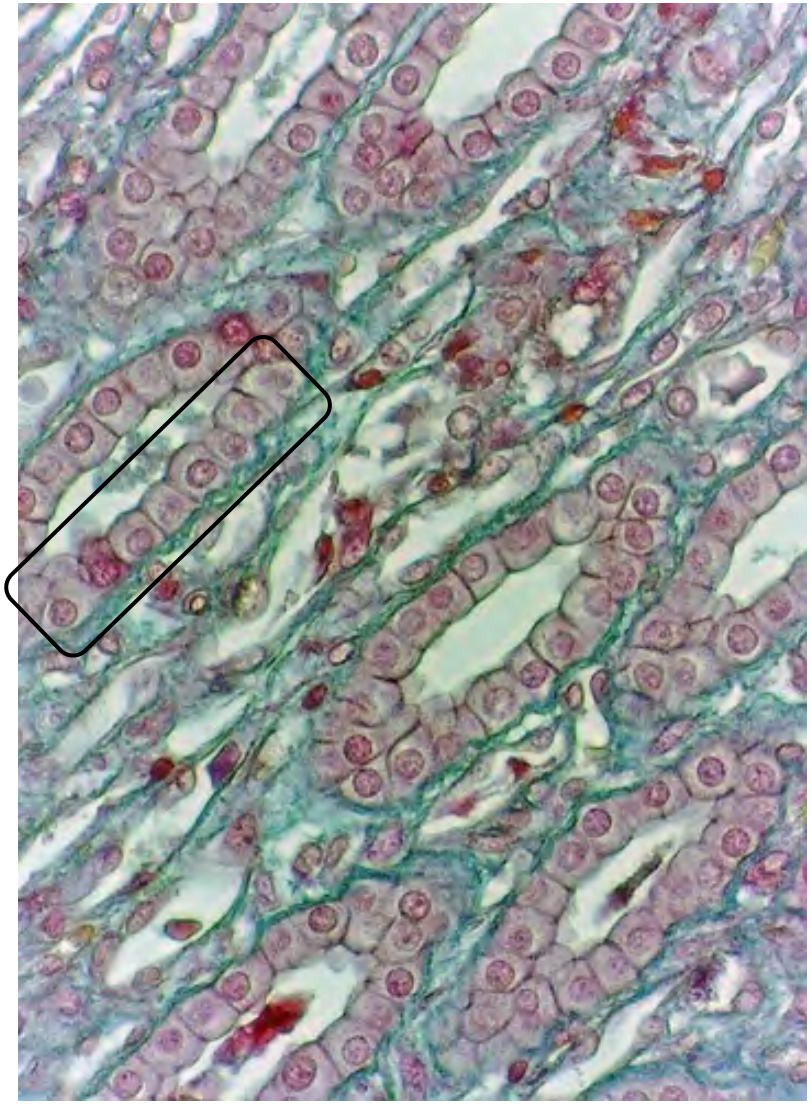
Location: _____, _____, and _____

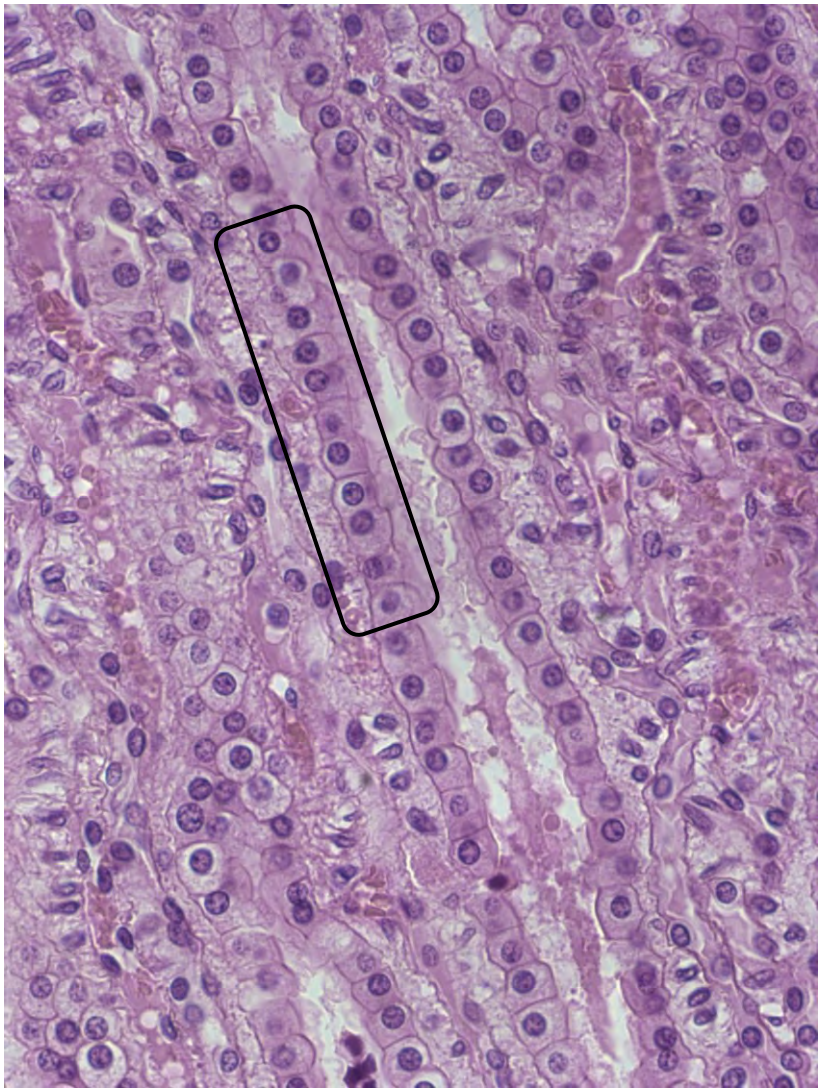




SIMPLE CUBOIDAL EPITHELIUM

Function: Secretion and some absorption
Location: Any secretory gland, kidney tubules and other ducts

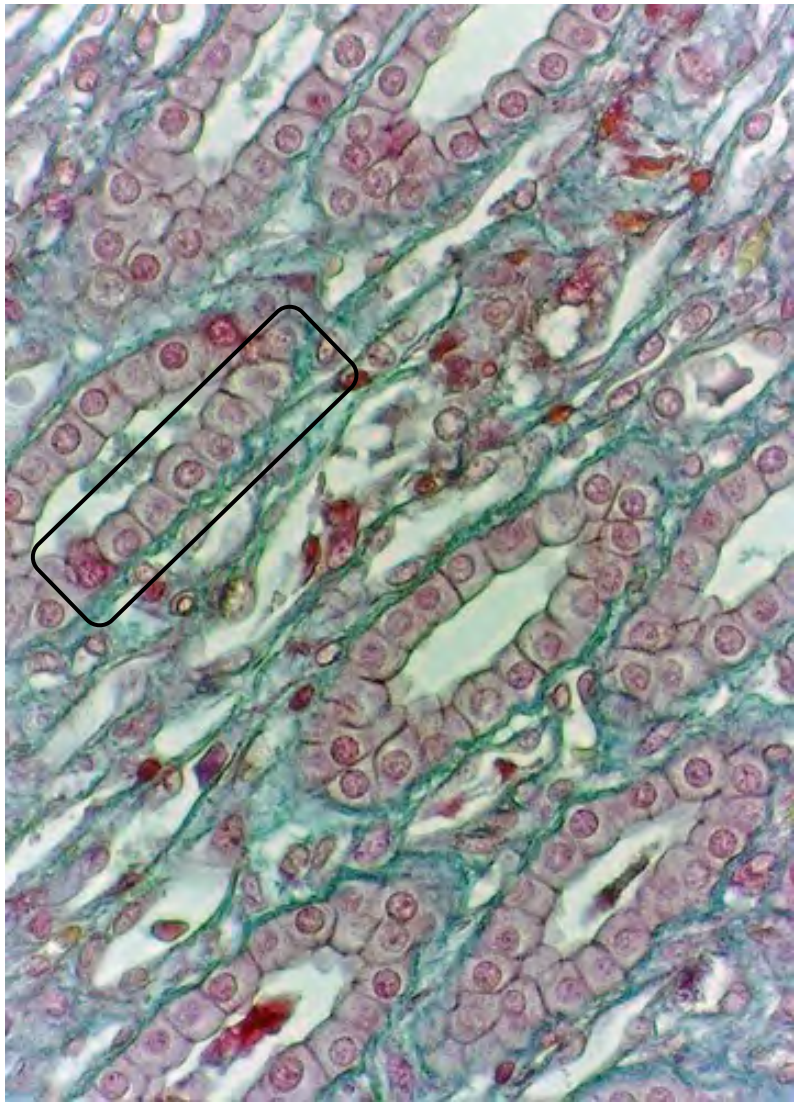


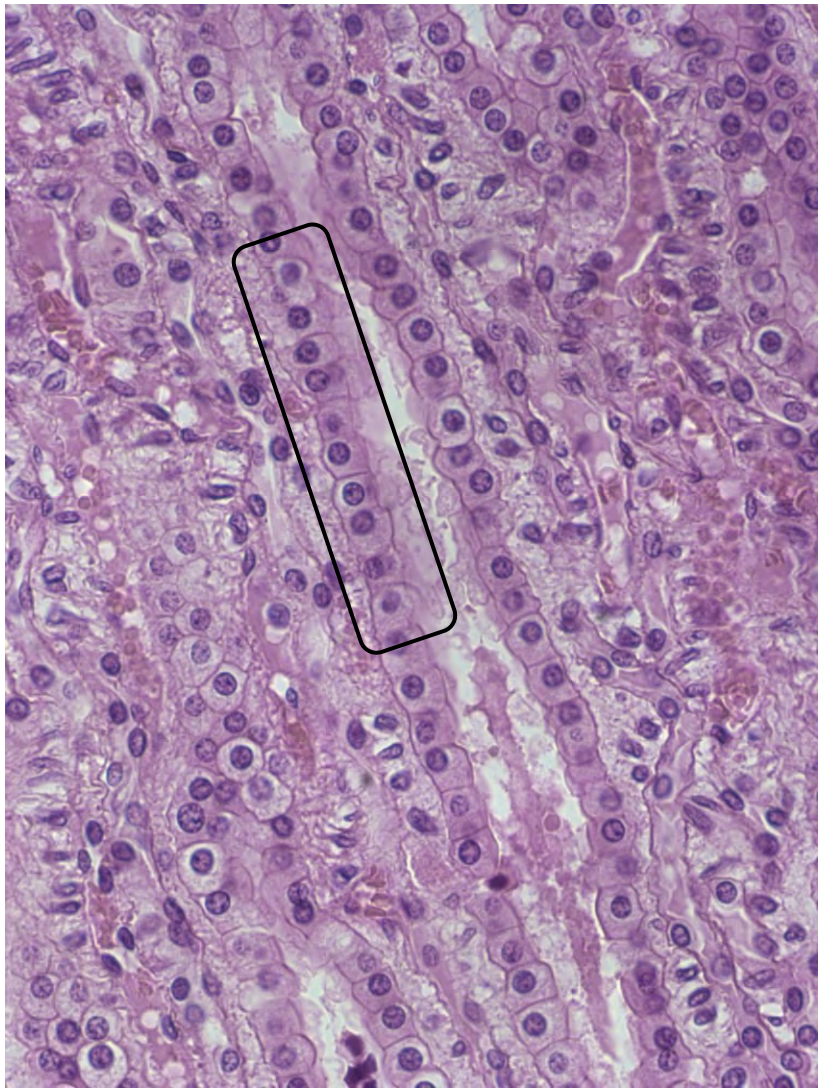


_____

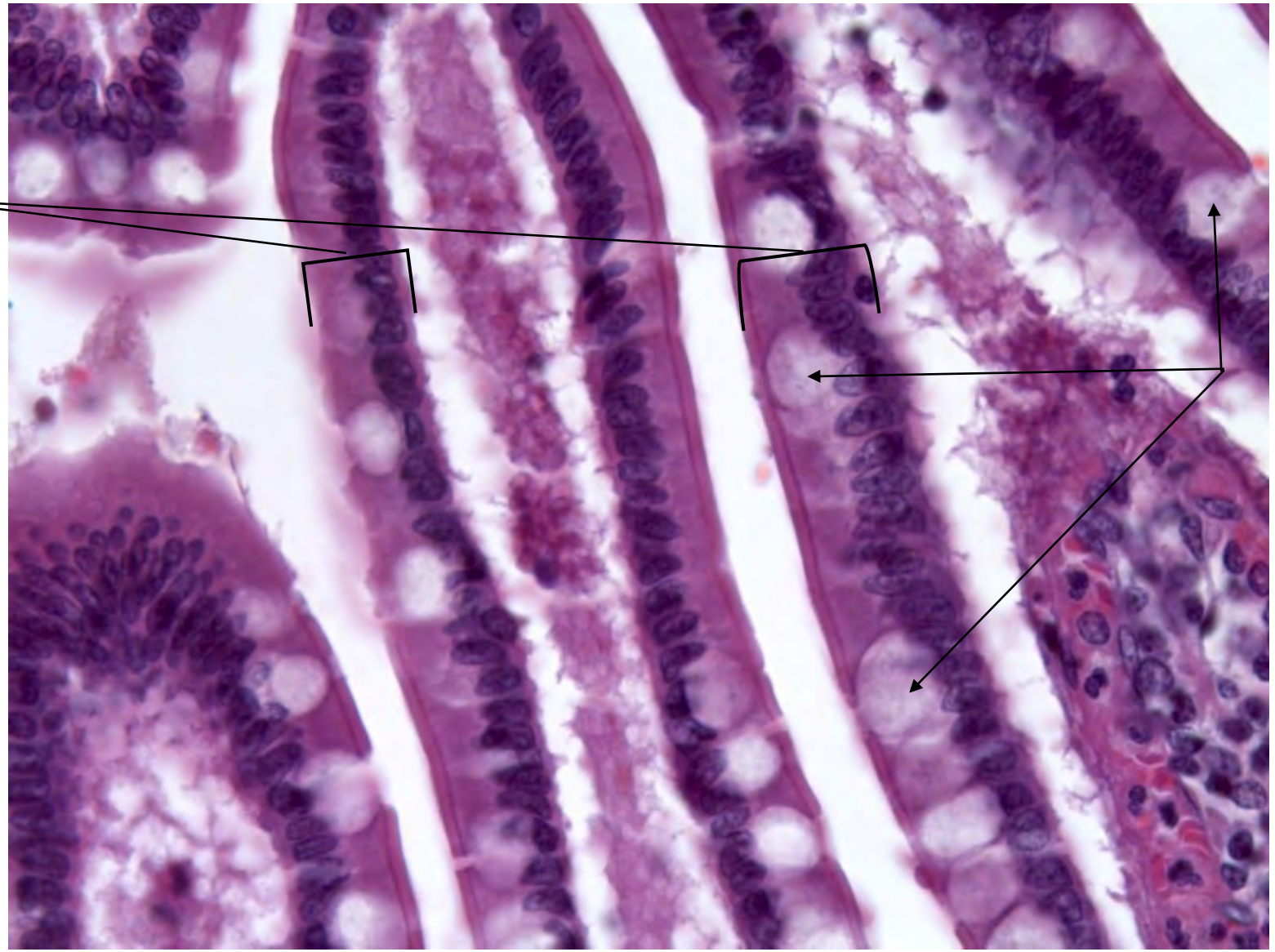
Function: _____ and _____

Location: _____, _____, and _____





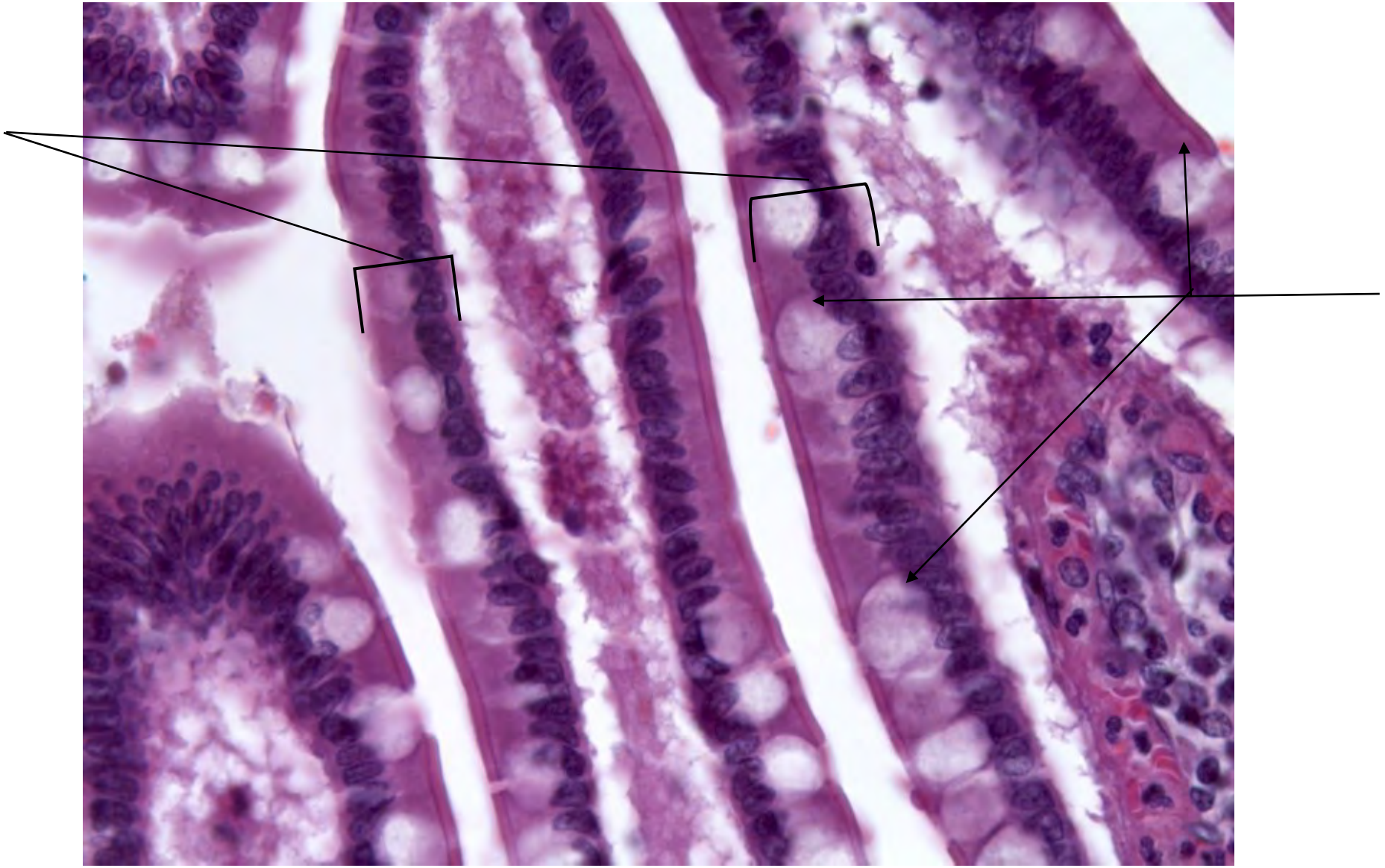
SIMPLE COLUMNAR EPITHELIUM



Function: Absorption or secretion

Location: Lining of small intestine, vas deferens, and other high pressure ducts

_____

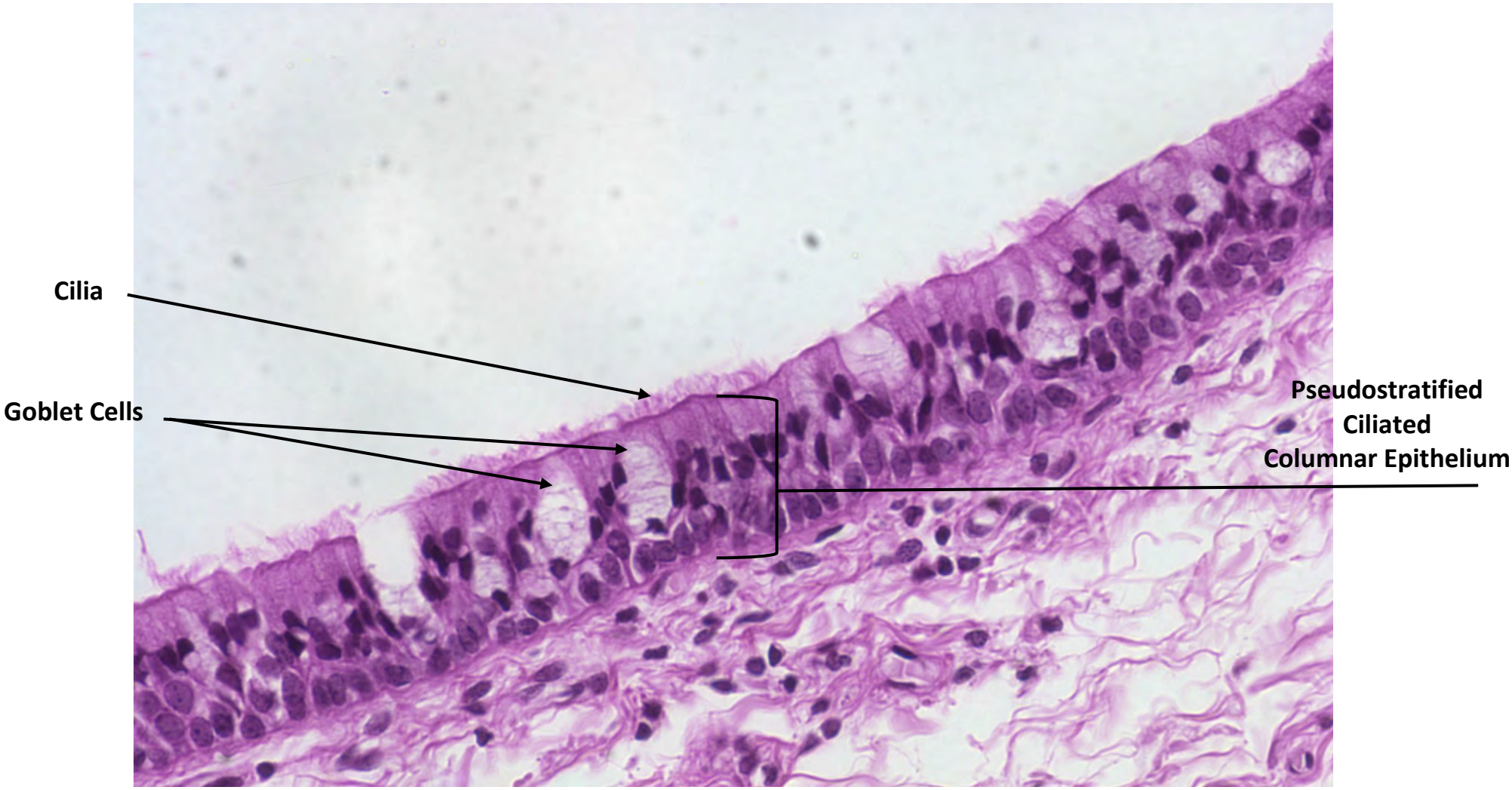


Function: _____

Location: _____, _____, and _____

PSEUDOSTRATIFIED CILIATED COLUMNAR EPITHELIUM

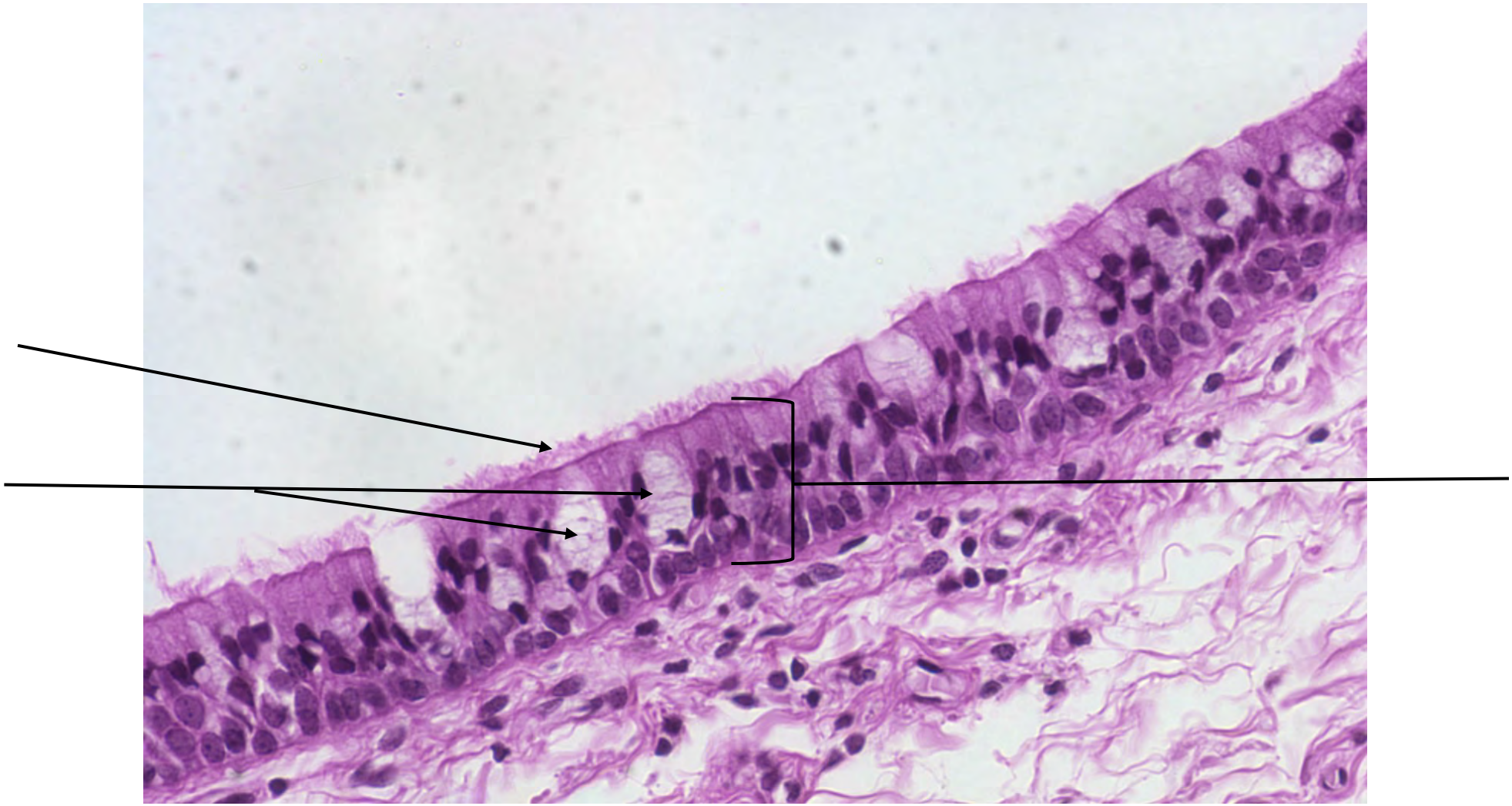
Function: Protection, removal of foreign material
Location: Nasal cavities, sinuses, pharynx, trachea, and bronchi of lungs



_____

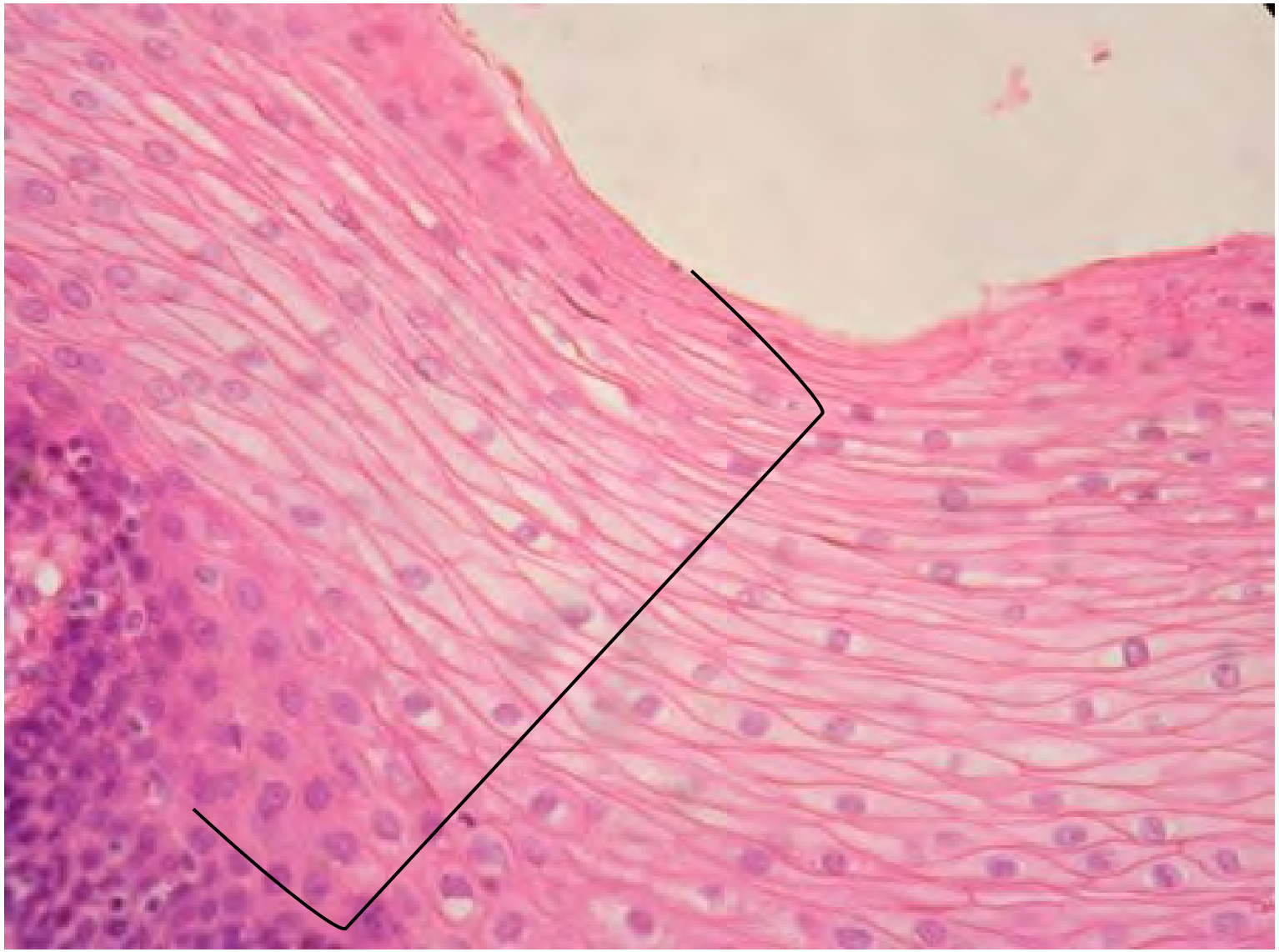
Function: _____, _____

Location: _____, _____, _____, _____, and _____



STRATIFIED SQUAMOUS EPITHELIUM

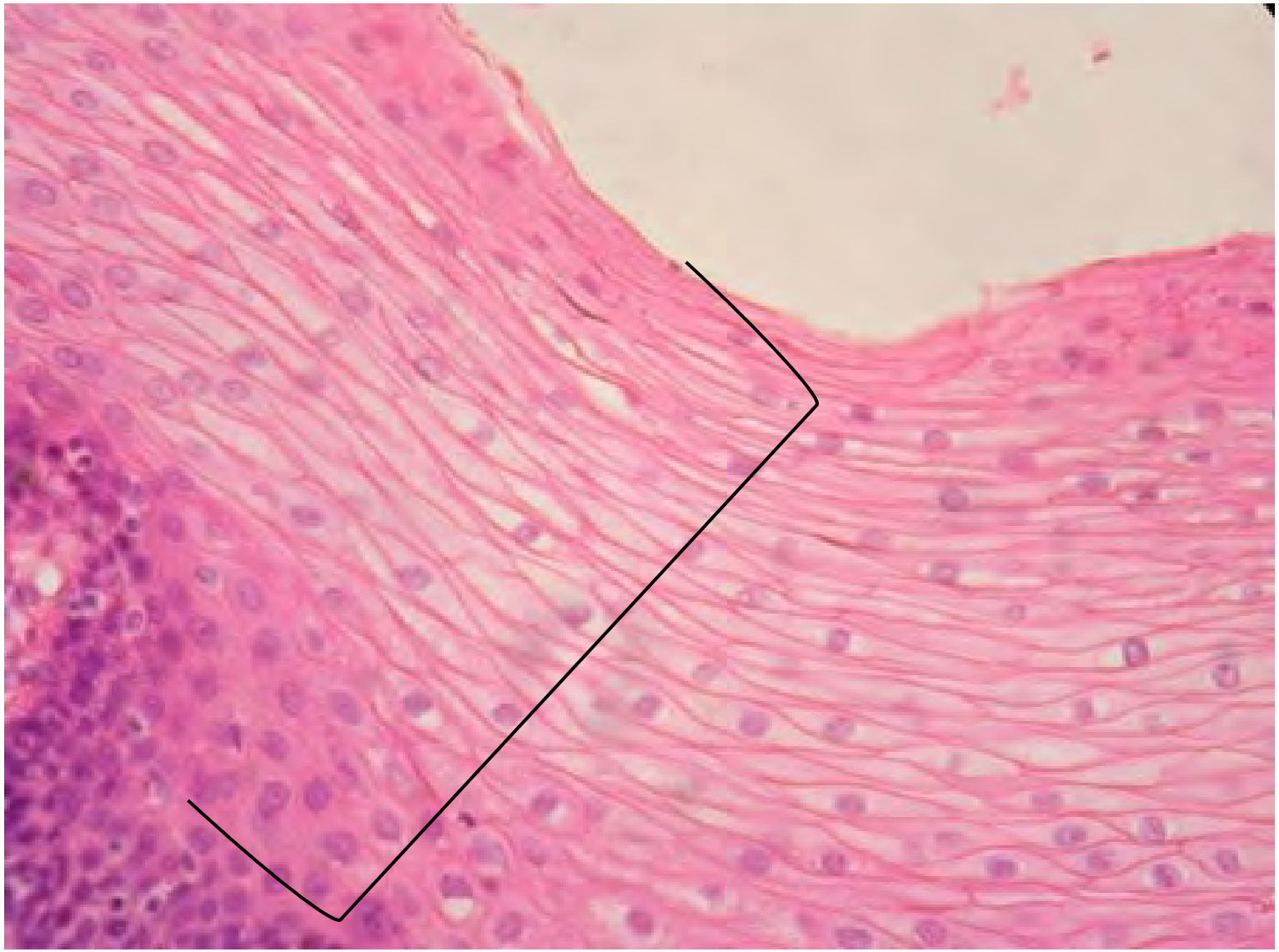
Function: Protection against abrasion
Location: Epidermis, oropharynx, anal canal



_____

Function: _____

Location: _____, _____, and _____

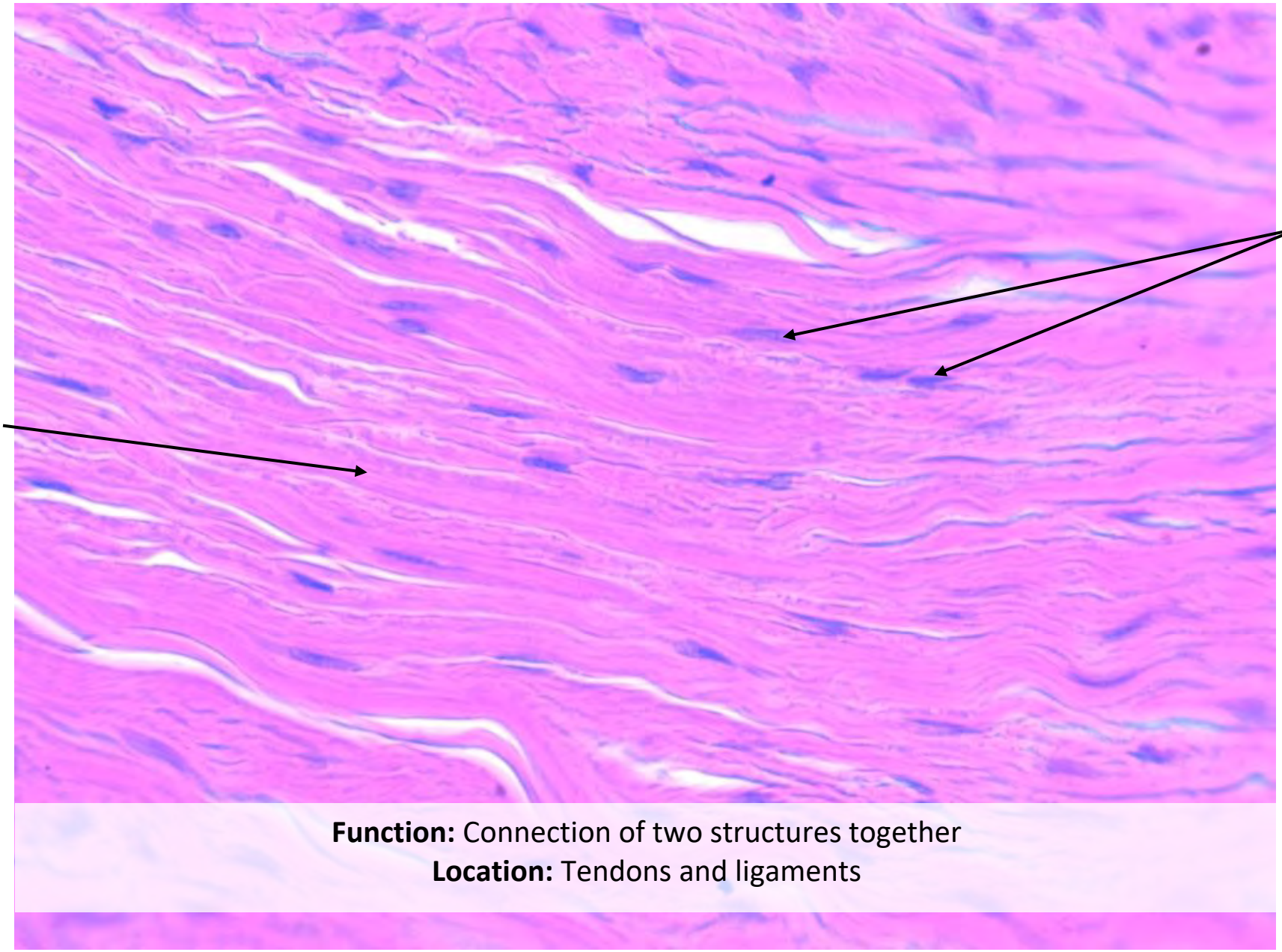


AREOLAR CONNECTIVE TISSUE

Function: Attach one tissue/organ to another, separates muscles

Location: Under skin, surrounding vessels, glands, muscles and nerves

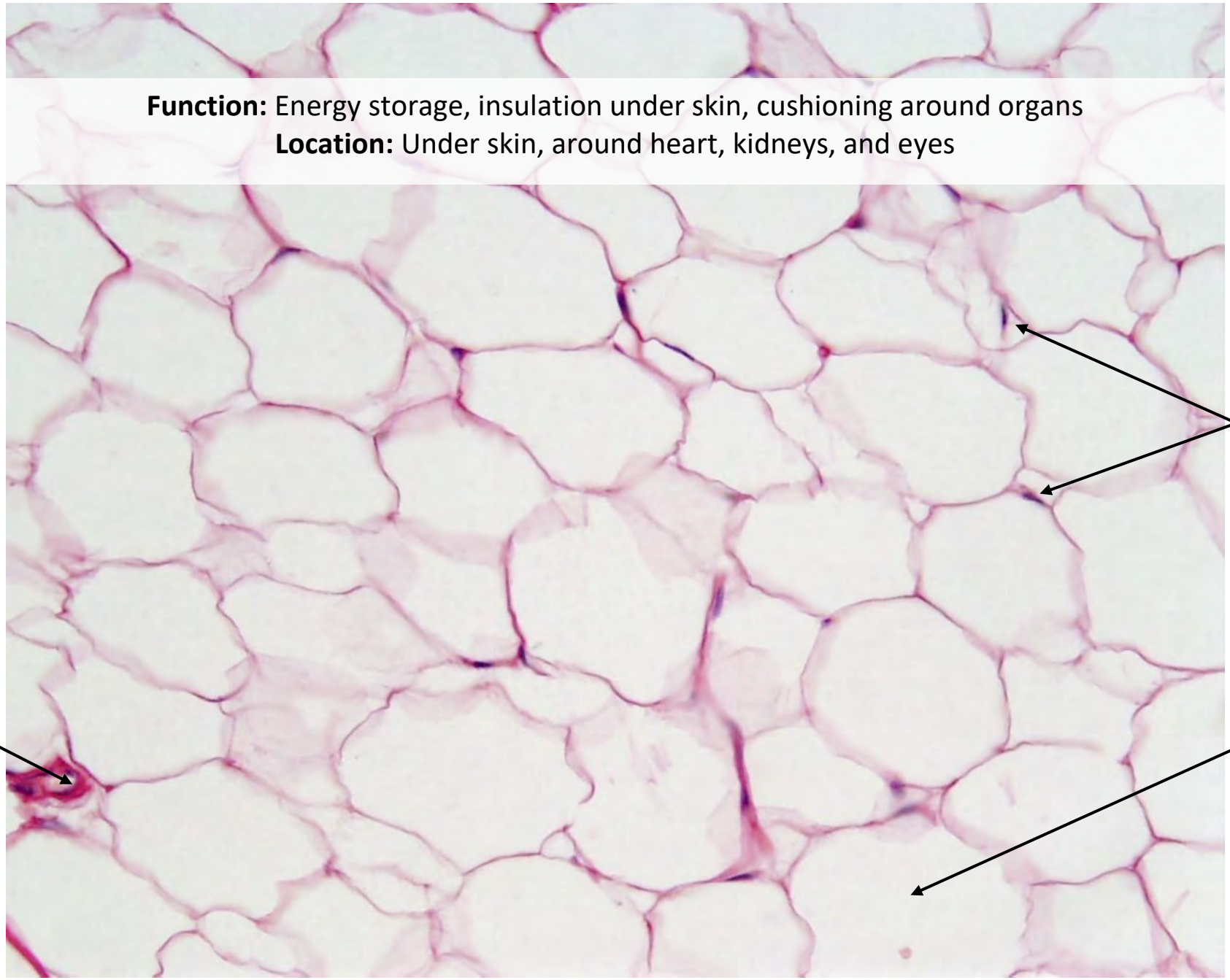
DENSE REGULAR CONNECTIVE TISSUE



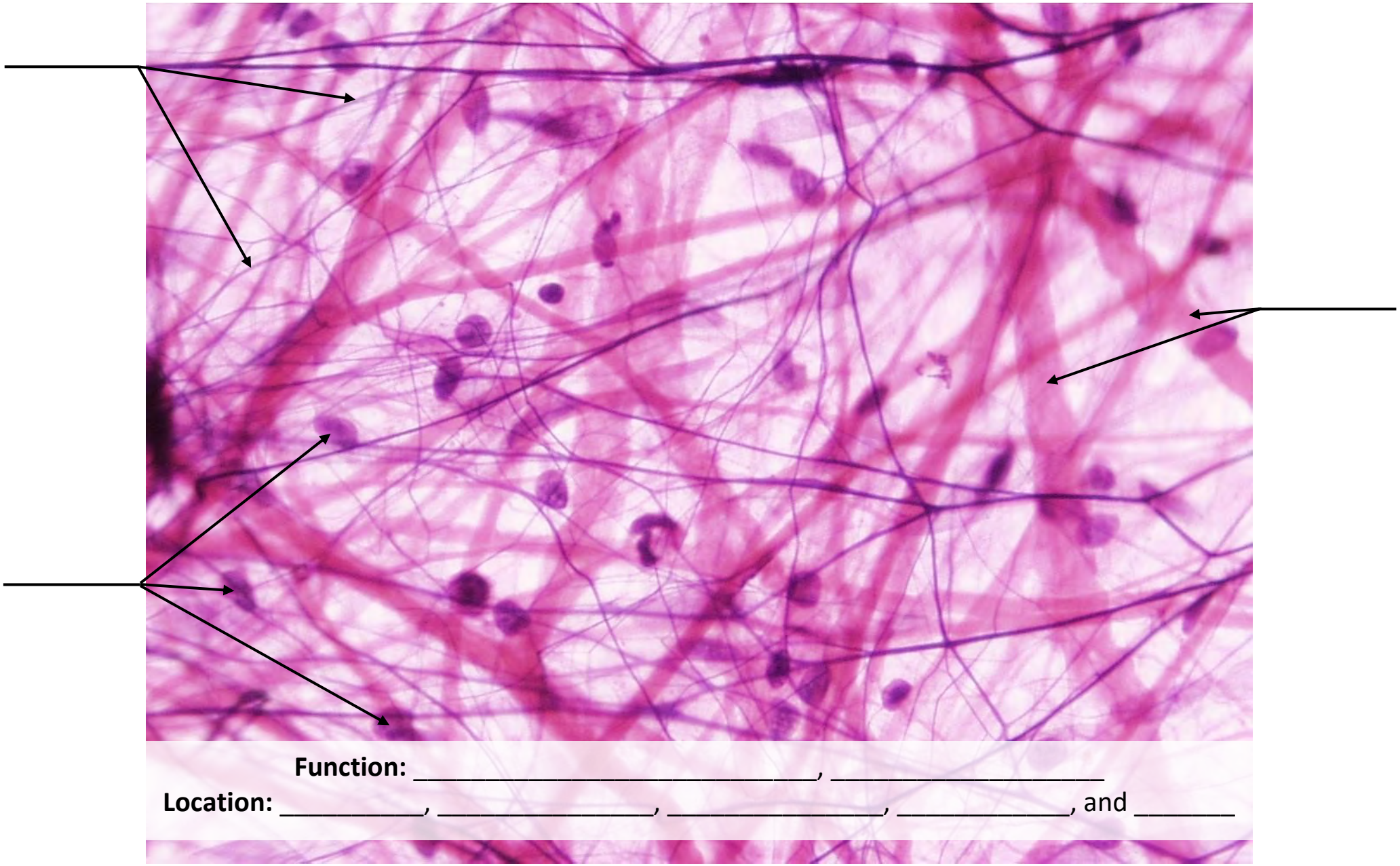
Function: Connection of two structures together
Location: Tendons and ligaments

ADIPOSE TISSUE

Function: Energy storage, insulation under skin, cushioning around organs
Location: Under skin, around heart, kidneys, and eyes



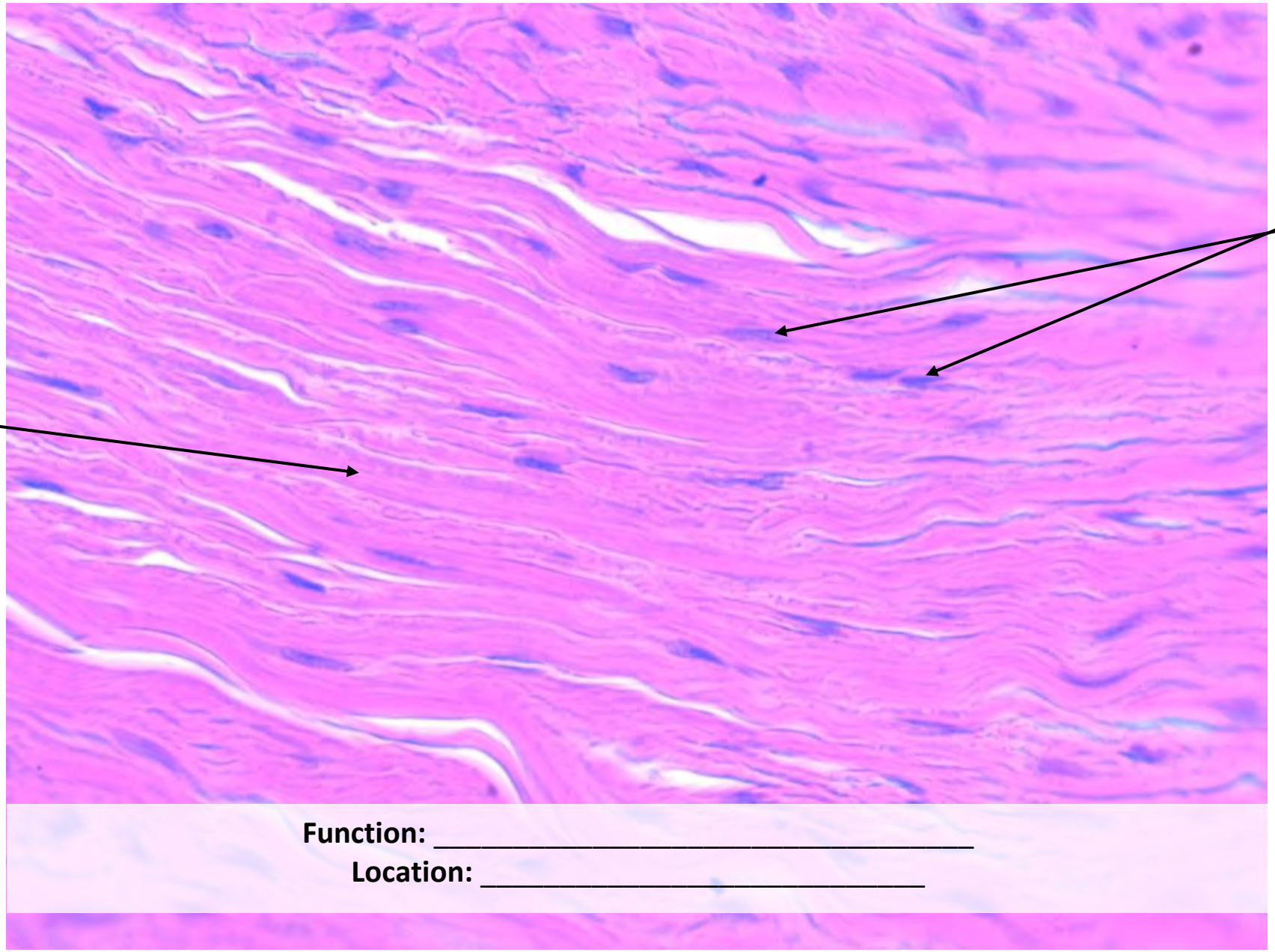
AREOLAR CONNECTIVE TISSUE



Function: _____, _____

Location: _____, _____, _____, _____, and _____

DENSE REGULAR CONNECTIVE TISSUE



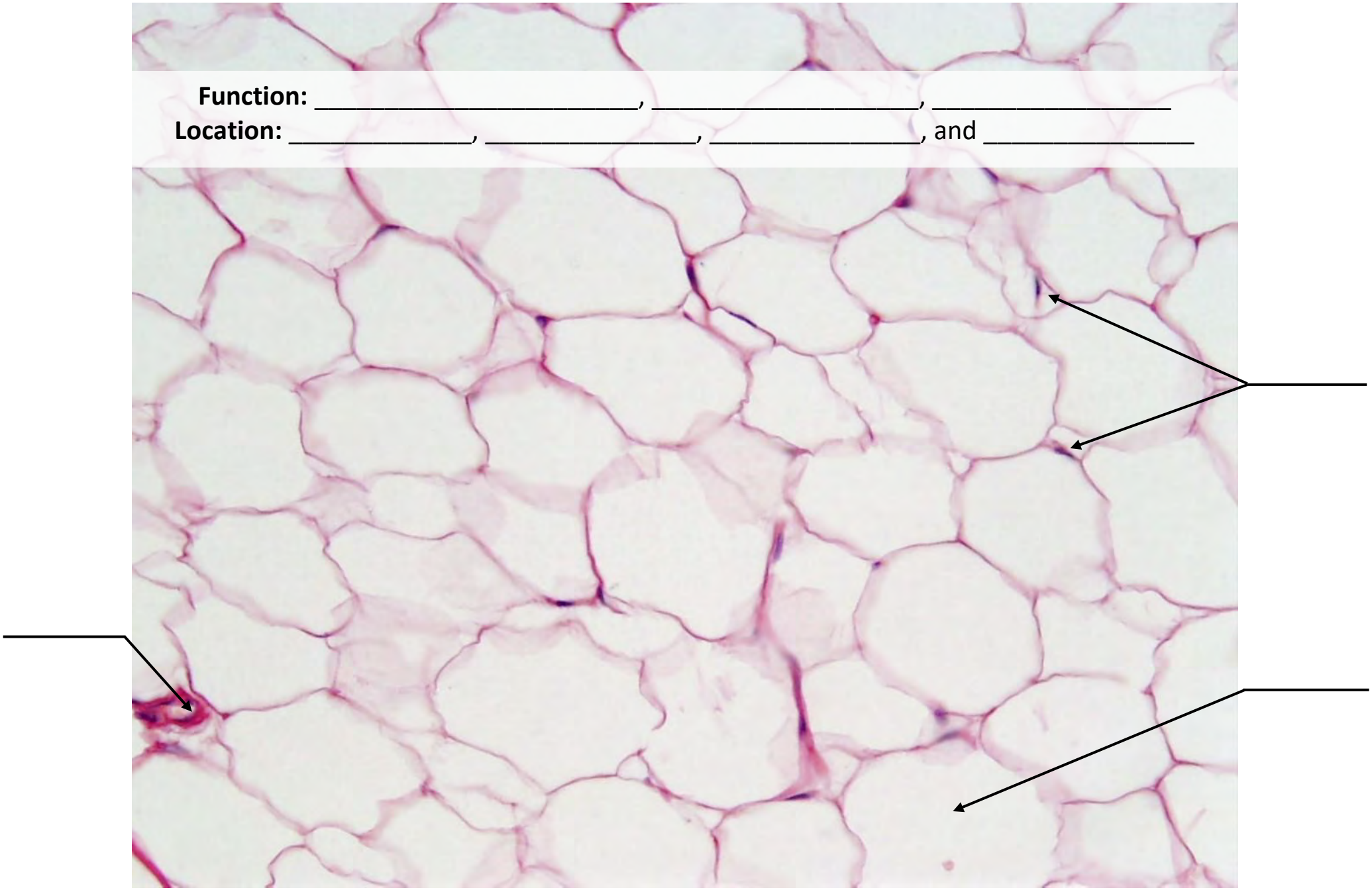
Function: _____

Location: _____

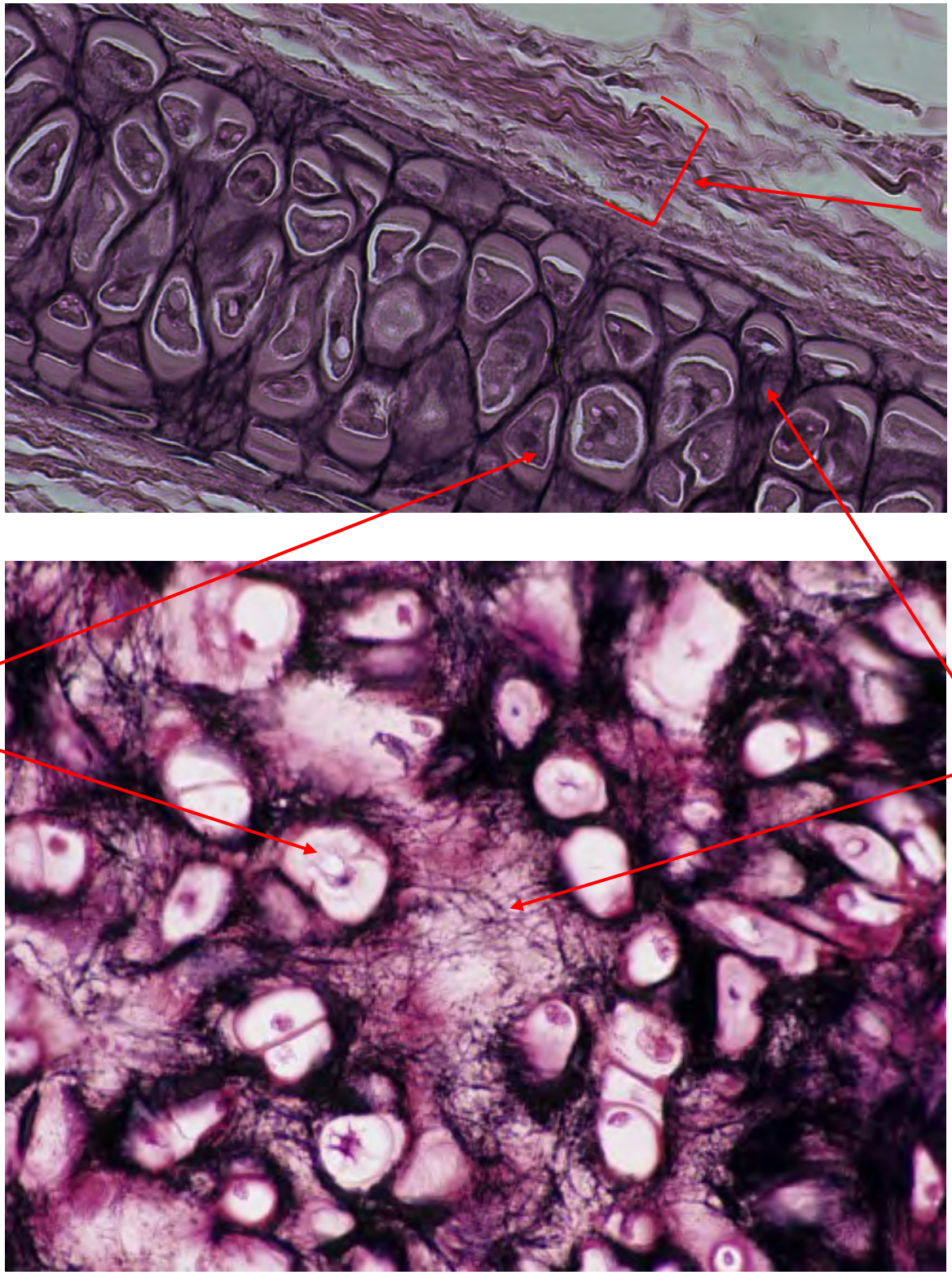
ADIPOSE TISSUE

Function: _____, _____, _____

Location: _____, _____, _____, and _____

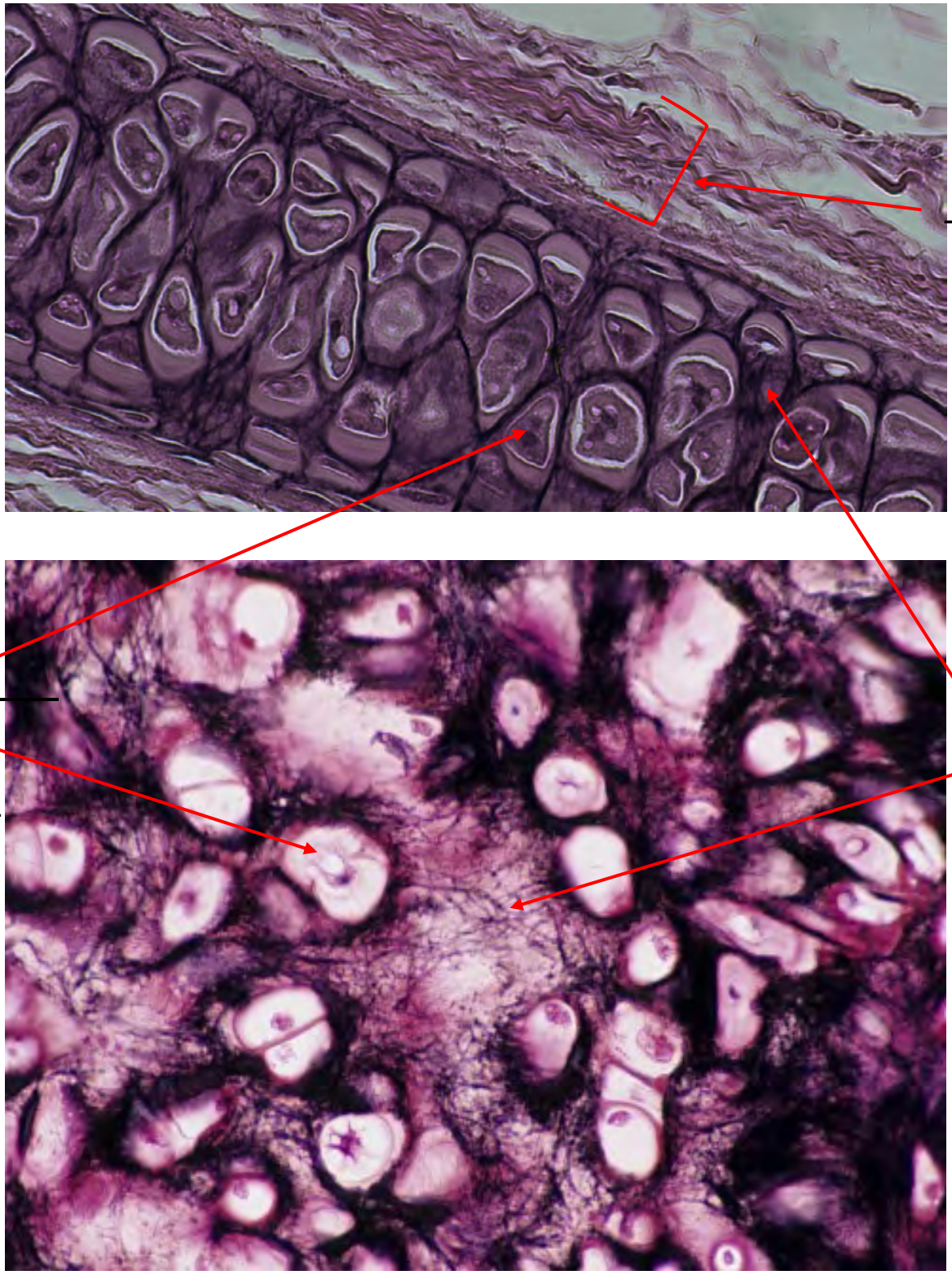


ELASTIC CARTILAGE



Function: Provide flexible support
Location: Outer ear, epiglottis, larynx

_____ _____



_____

_____

_____

_____

_____

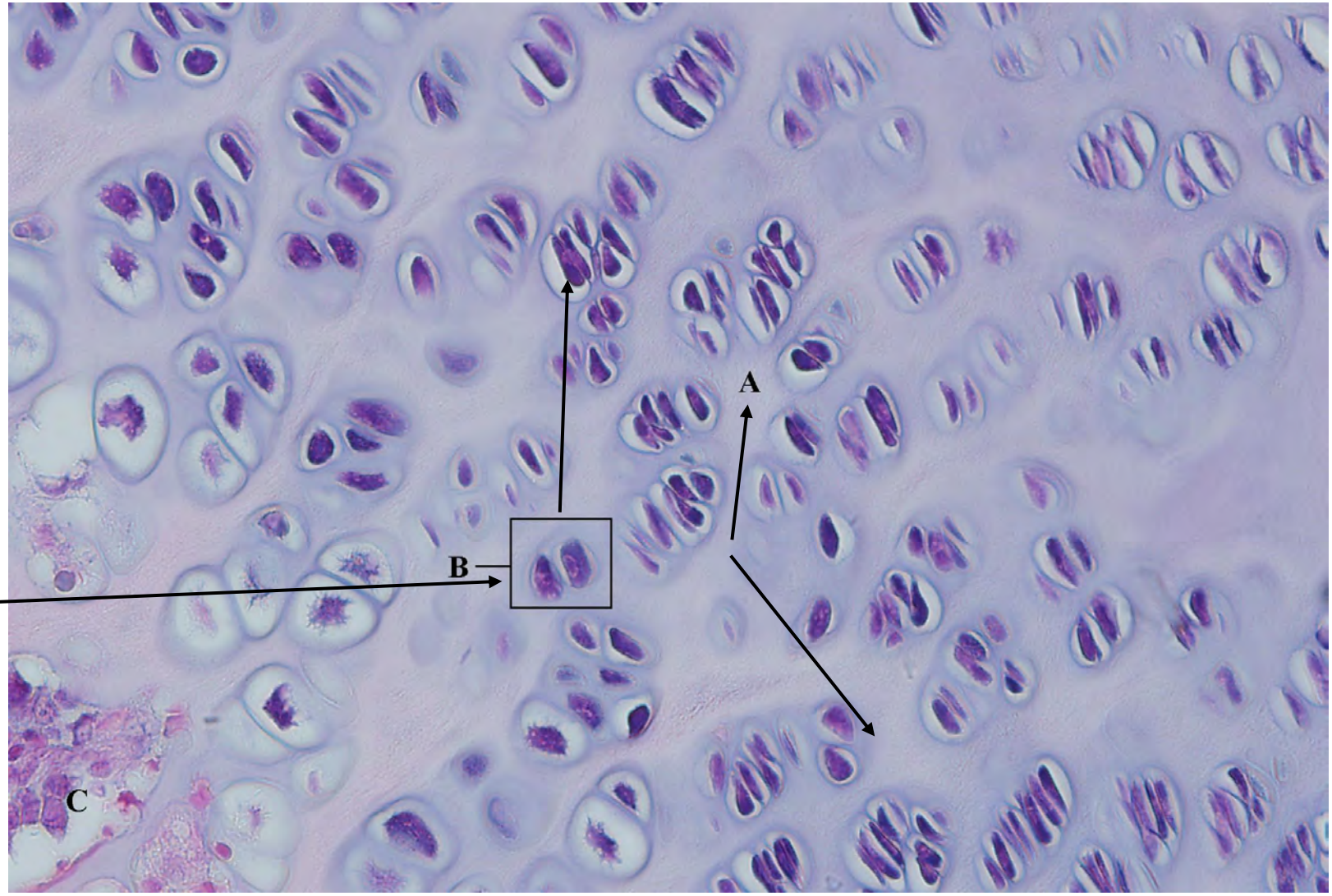
_____

Function: _____

Location: _____ , _____ , _____

FIBROCARTILAGE

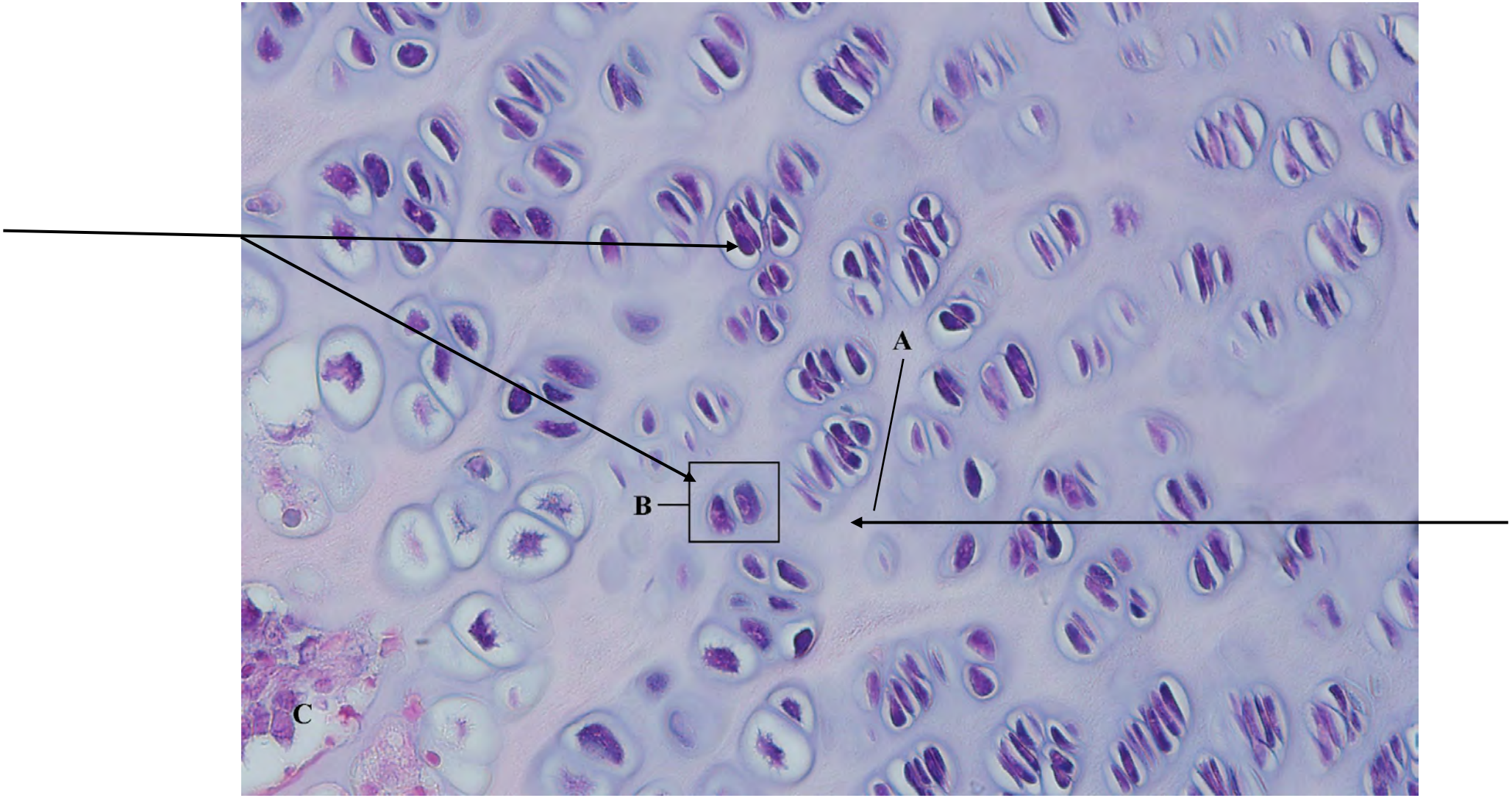
Function: Reinforces ligaments and forms articular discs
Location: Joints, pubic symphysis



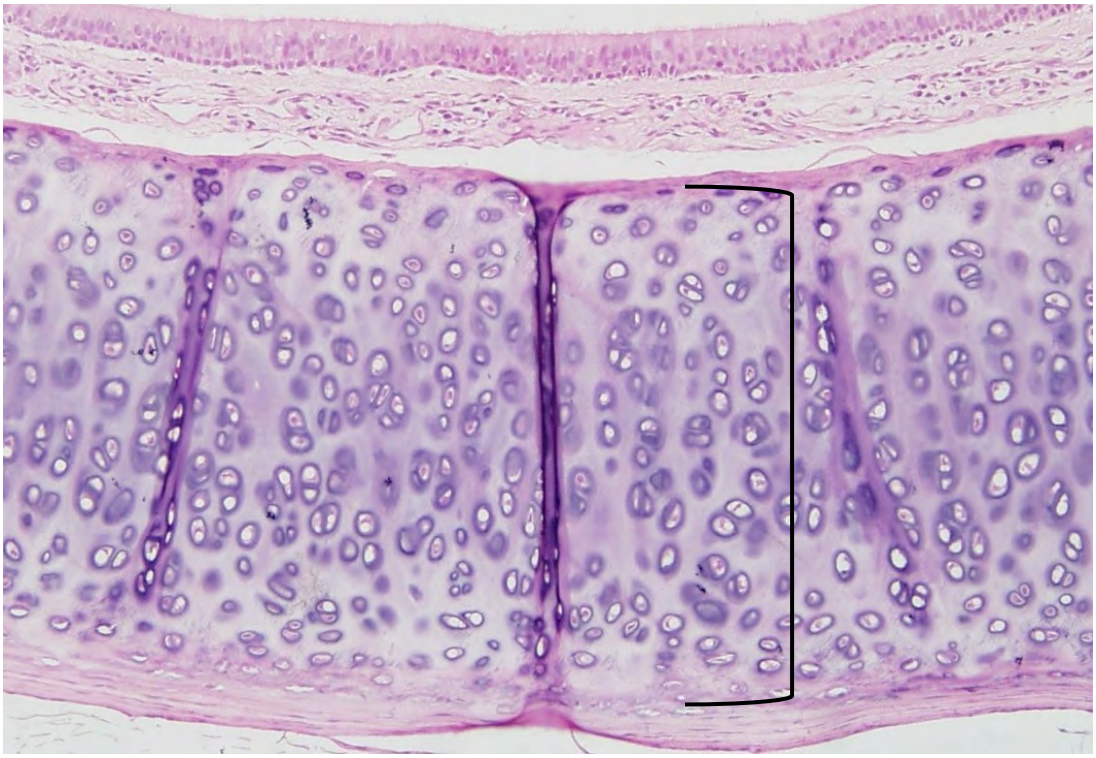
FIBROCARTILAGE

Function: _____ and _____

Location: _____, _____

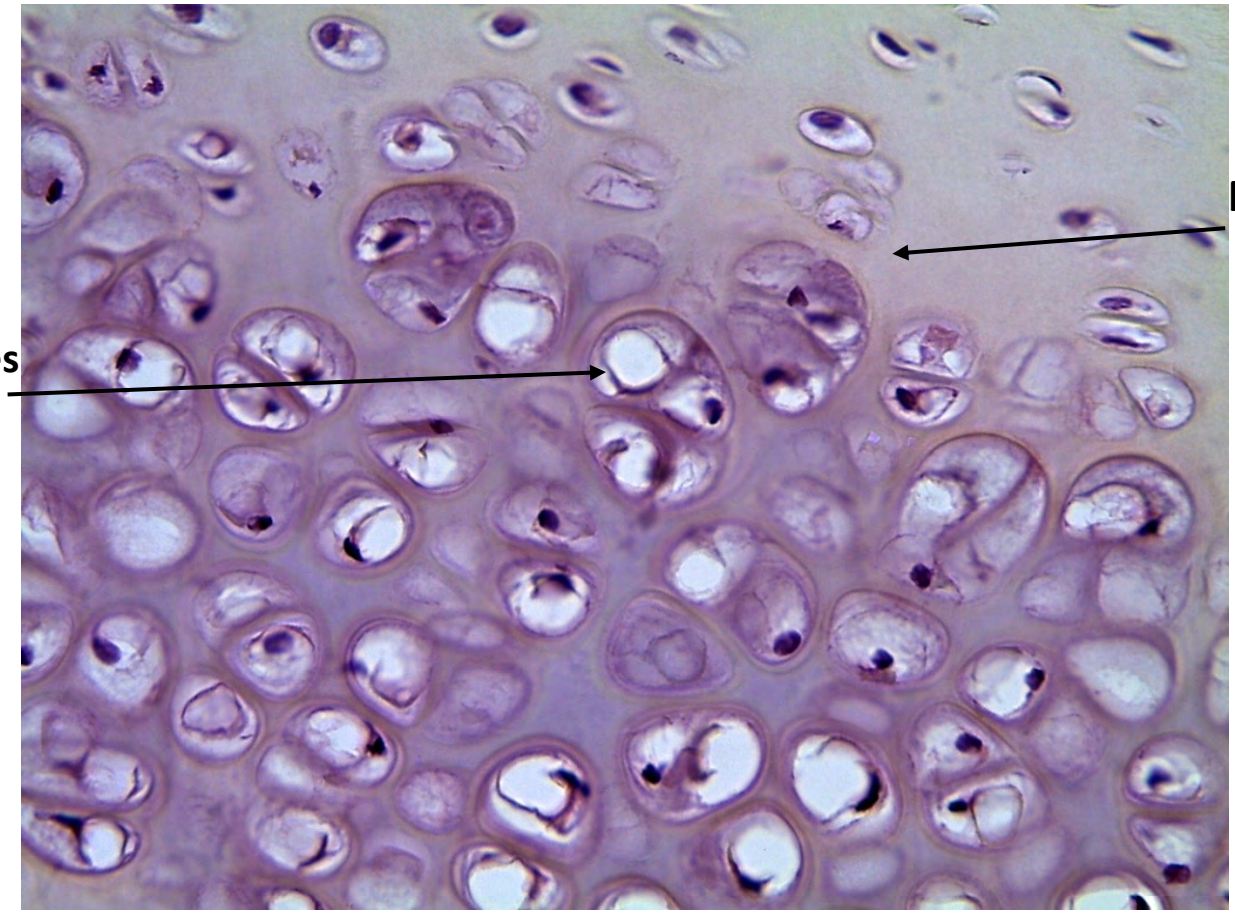


HYALINE CARTILAGE

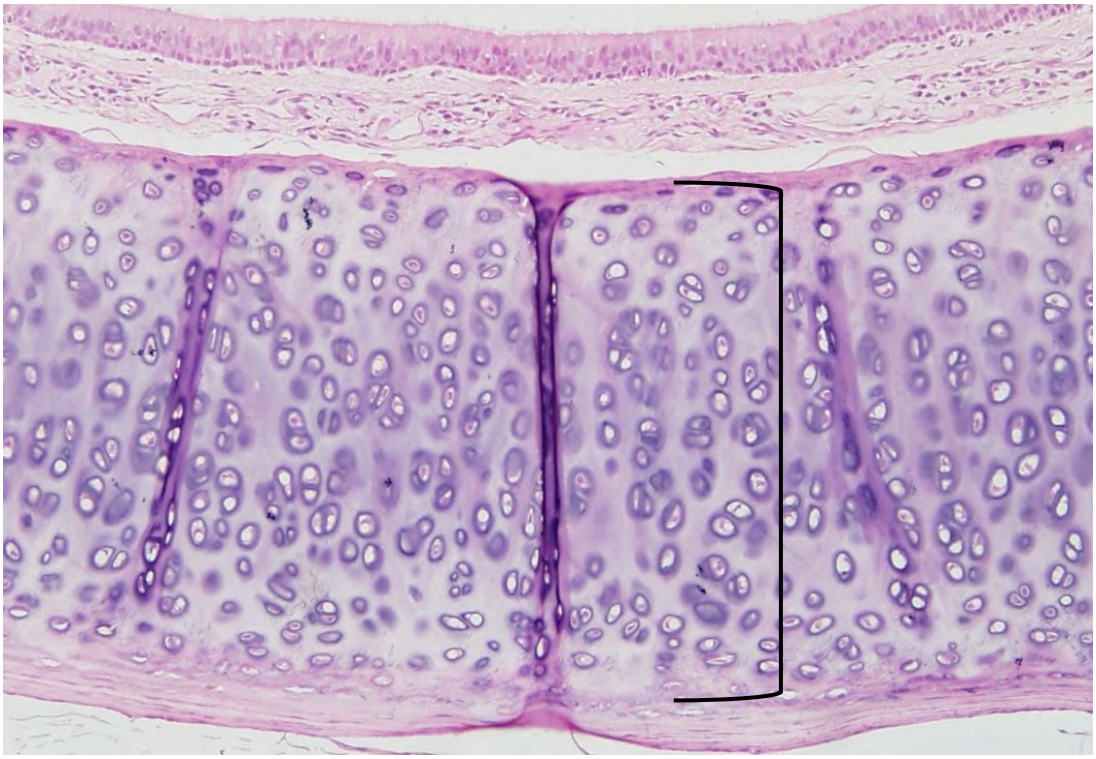


Function: Support

Location: Costal cartilage, end of nose

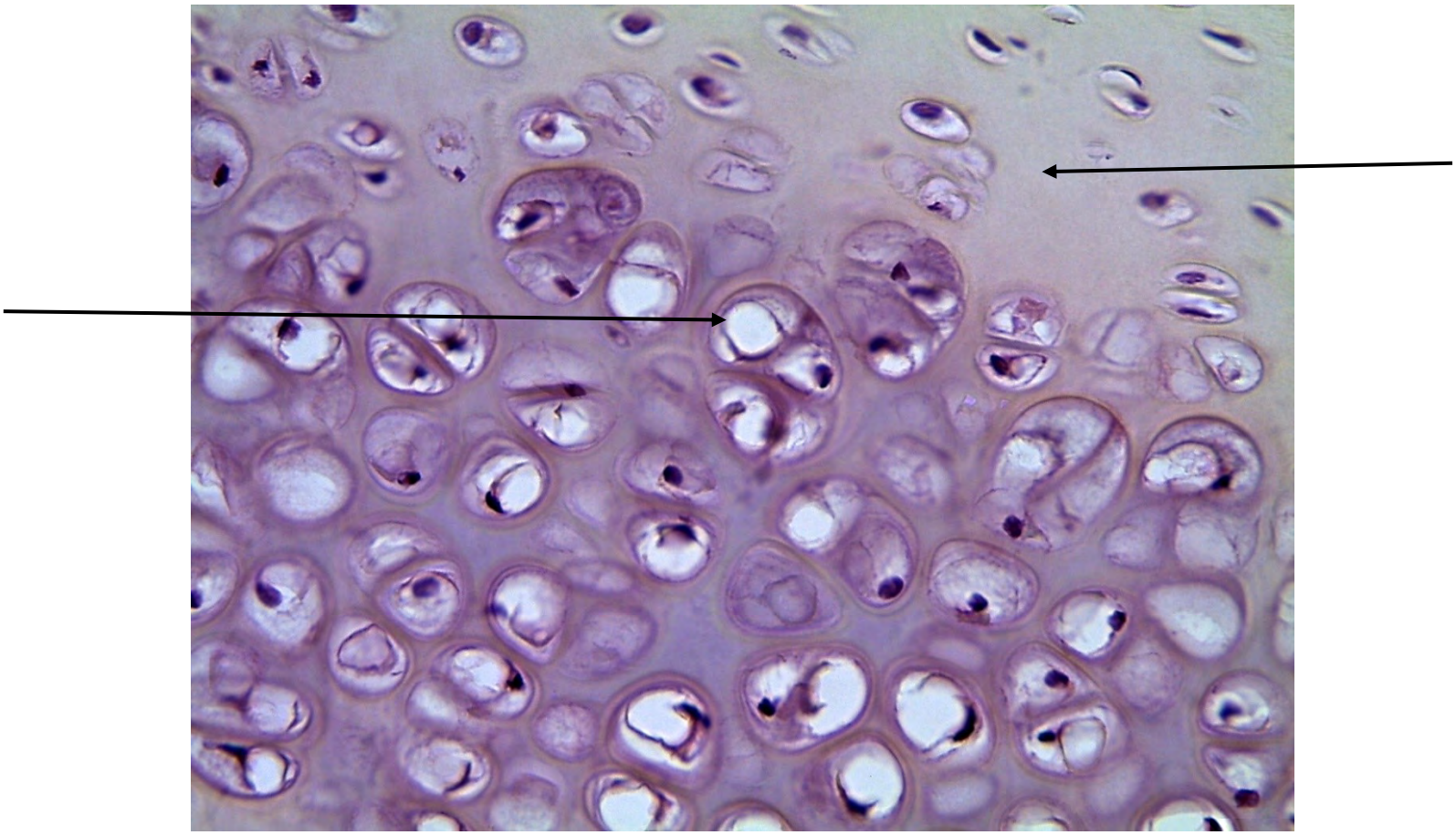


HYALINE CARTILAGE

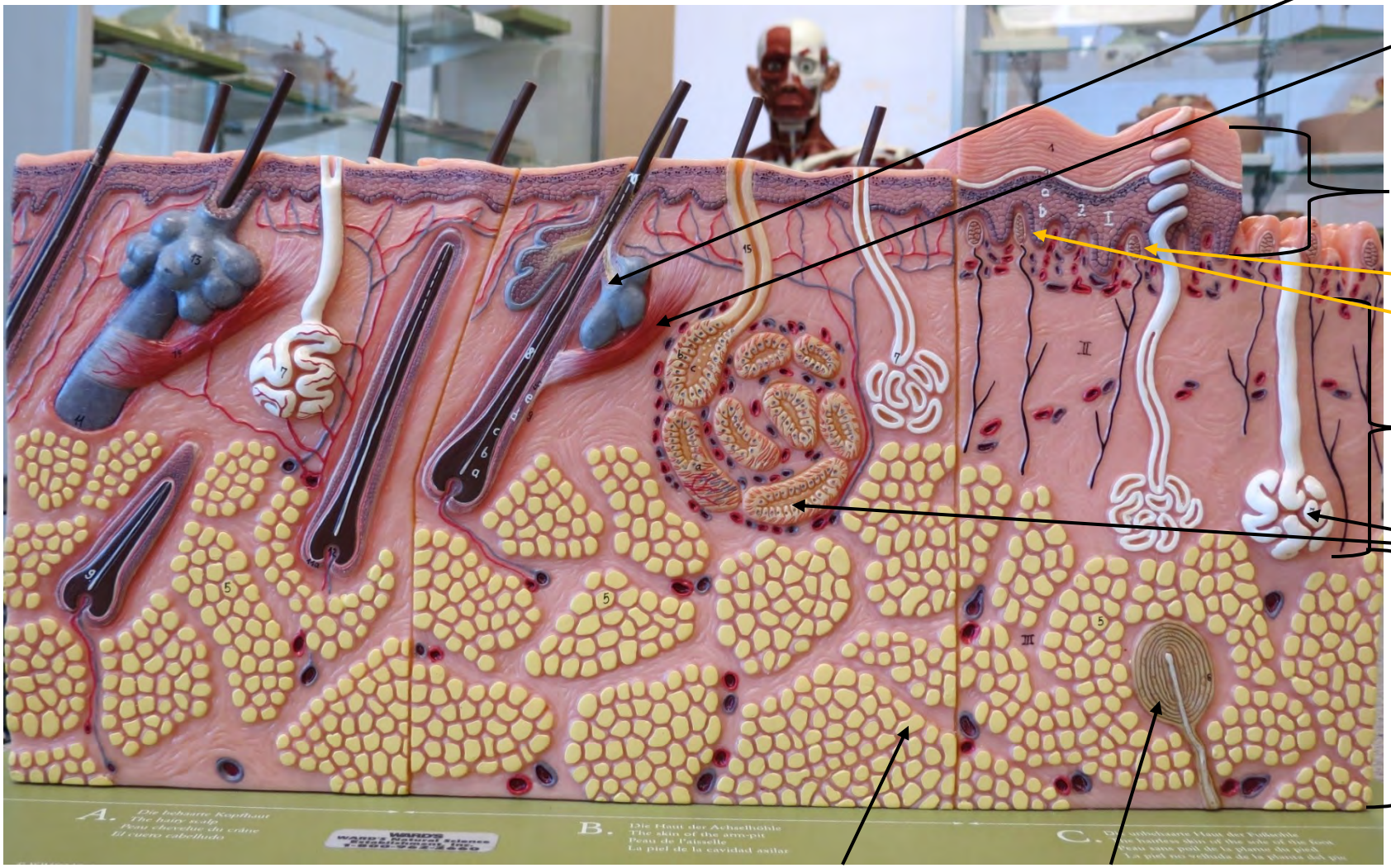


Function: _____

Location: _____ and _____



SKIN MODEL



Sebaceous Gland

Arrector Pili Muscle

EPIDERMAL LAYER

Meissner's Corpuscles

DERMIS LAYER

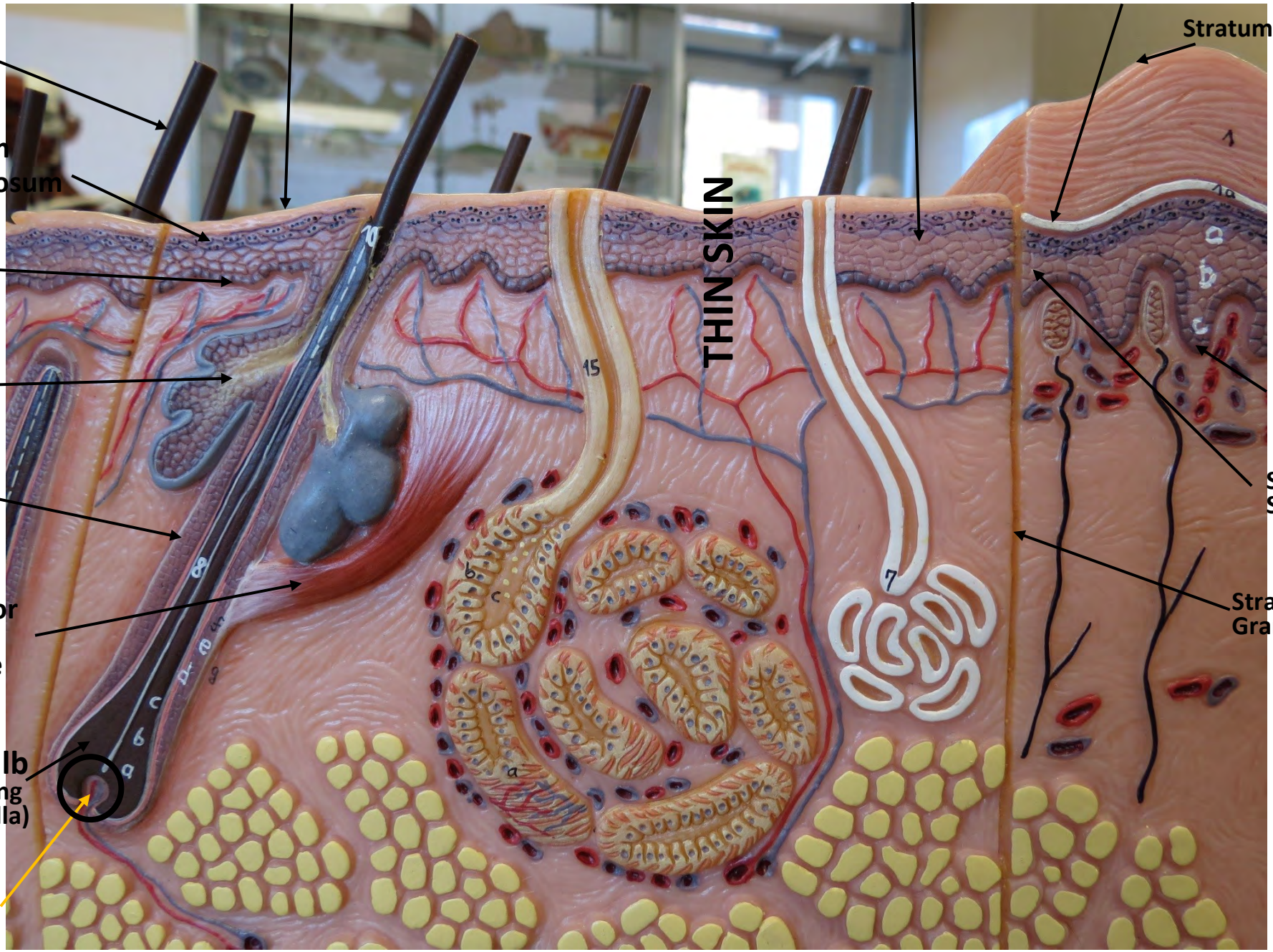
Sweat Glands

HYPODERMIS (SUBCUTANEOUS) LAYER

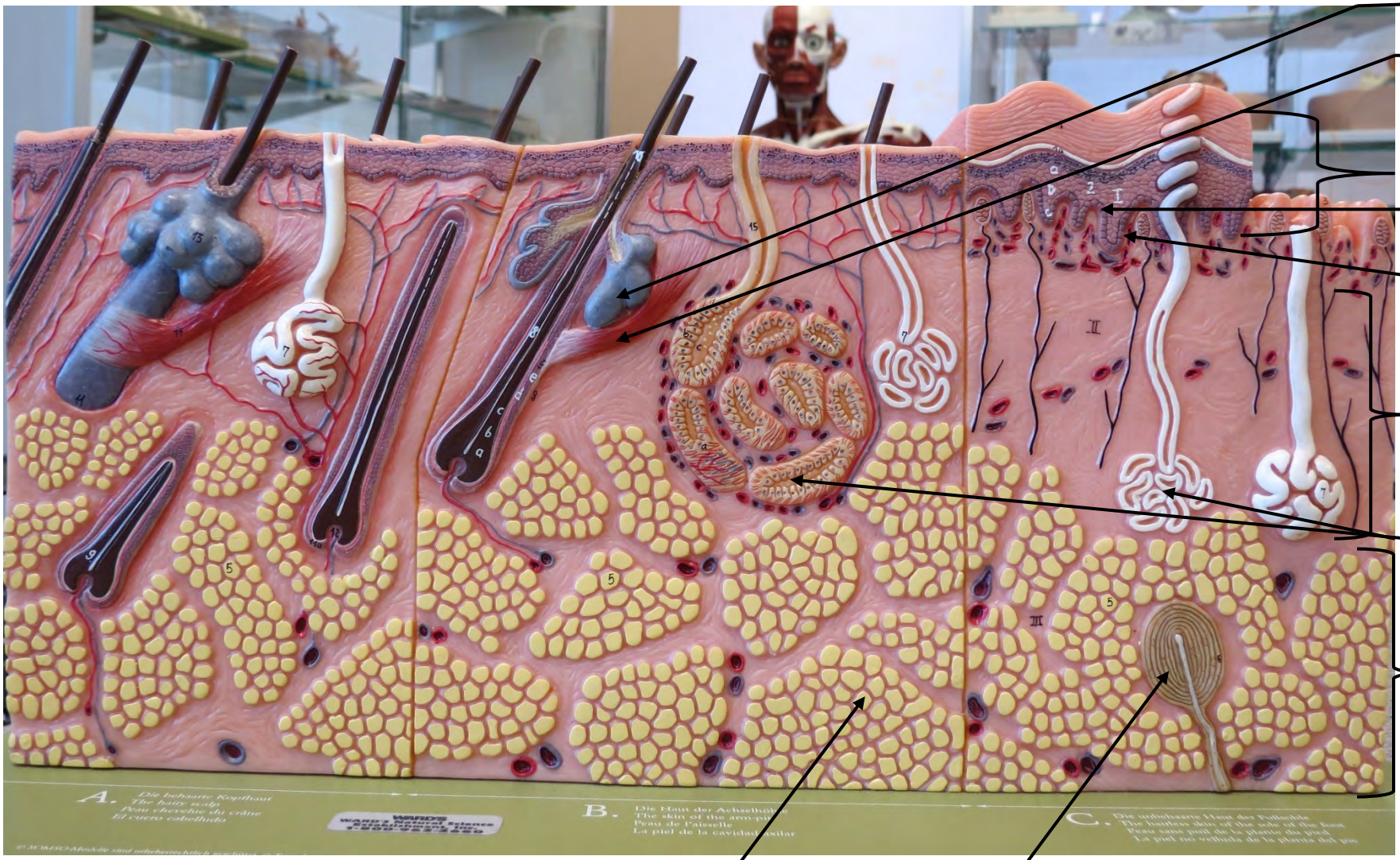
Adipose Tissue

Pacinian Corpuscle

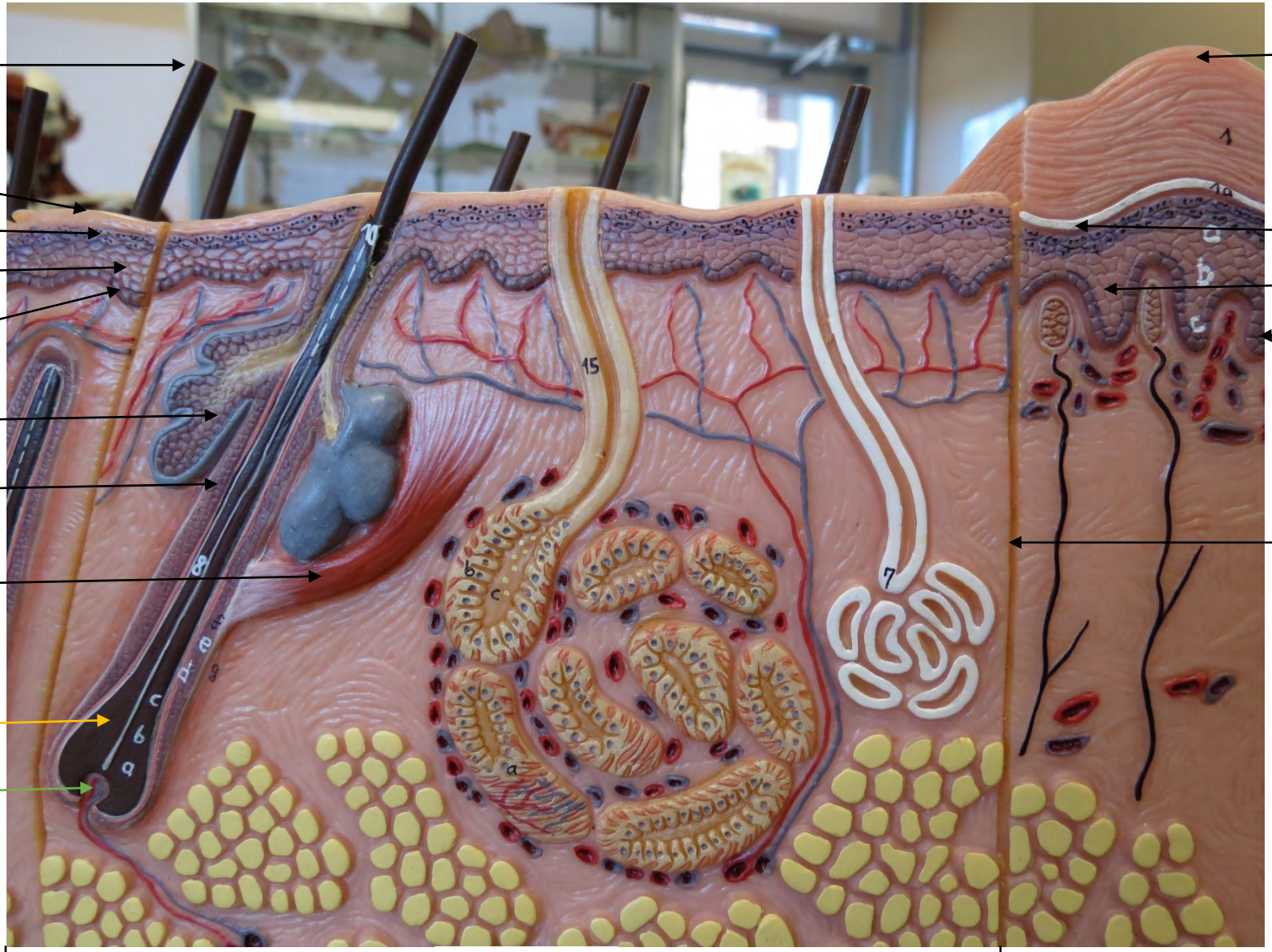
SKIN MODEL


Stratum Corneum
Stratum Spinosum
Stratum Lucidum
Stratum Corneum
Hair Shaft
Stratum Granulosum
Stratum Basale
Hair Root
Hair Follicle
Arrector Pili Muscle
Hair Bulb (containing hair papilla)
Papilla
THIN SKIN
THICK SKIN
Stratum Basale
Stratum Spinosum
Stratum Granulosum

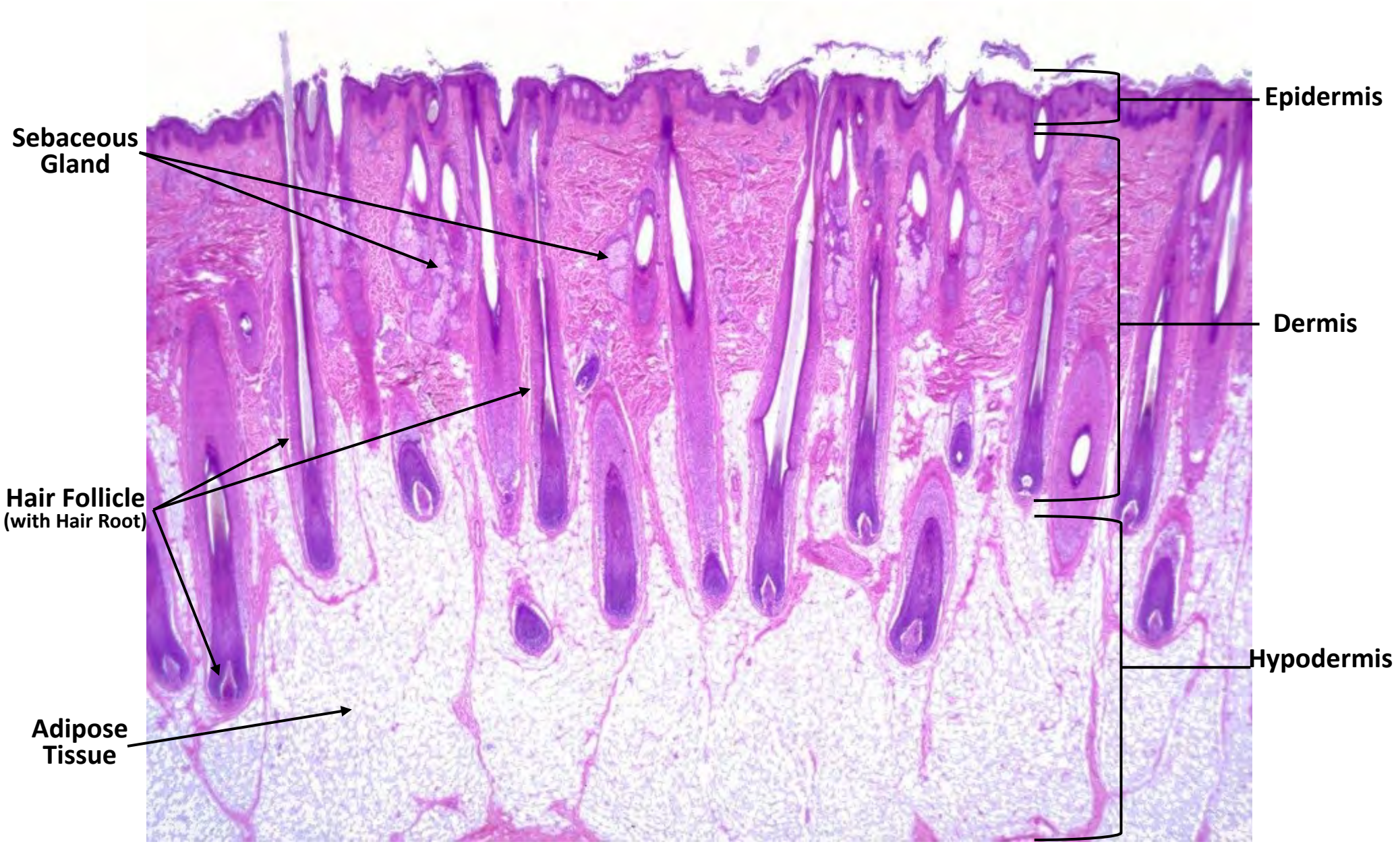
SKIN MODEL



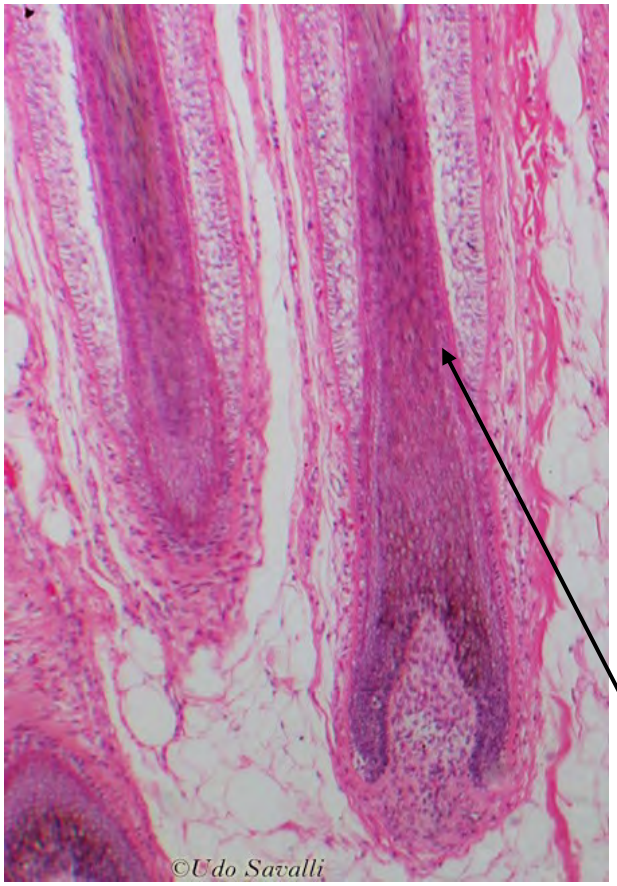
SKIN MODEL

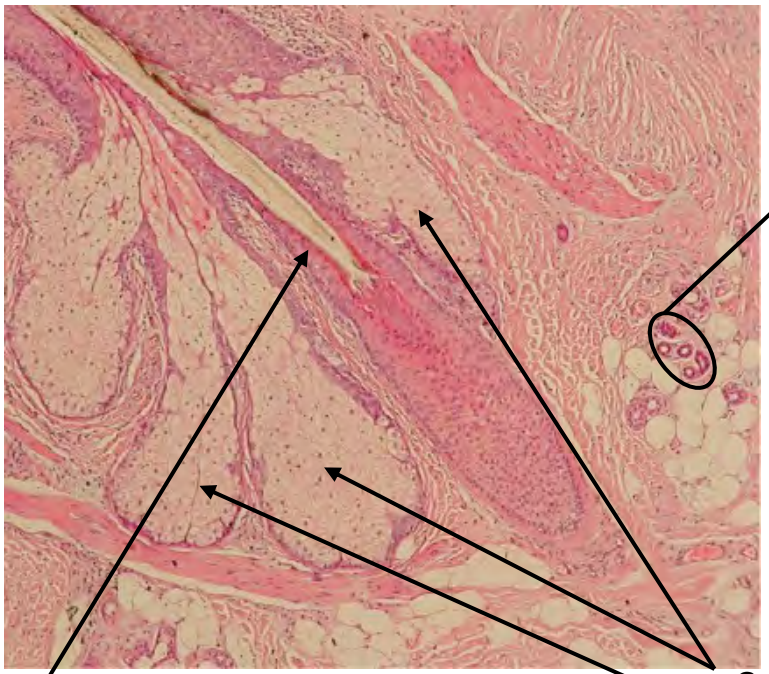


SKIN SLIDES


Sebaceous Gland
Hair Follicle
(with Hair Root)
Adipose Tissue
Epidermis
Dermis
Hypodermis

SKIN SLIDES

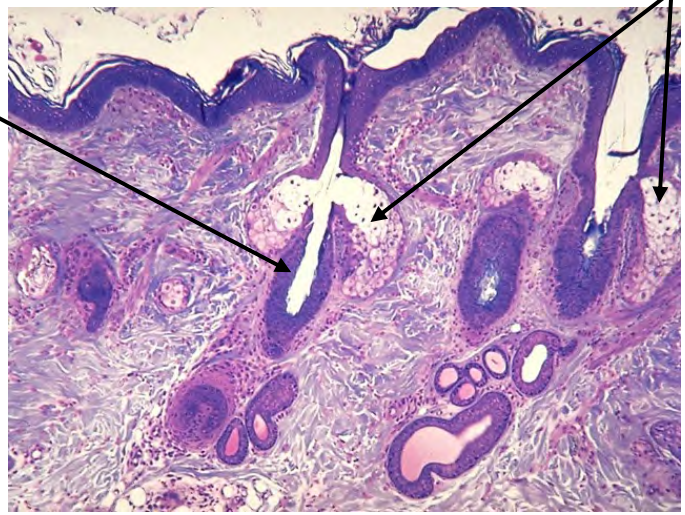


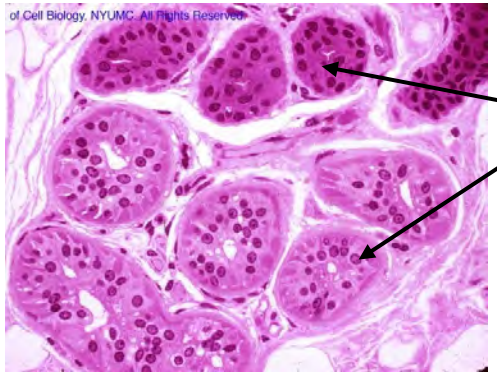


Sweat Glands

Sebaceous Gland

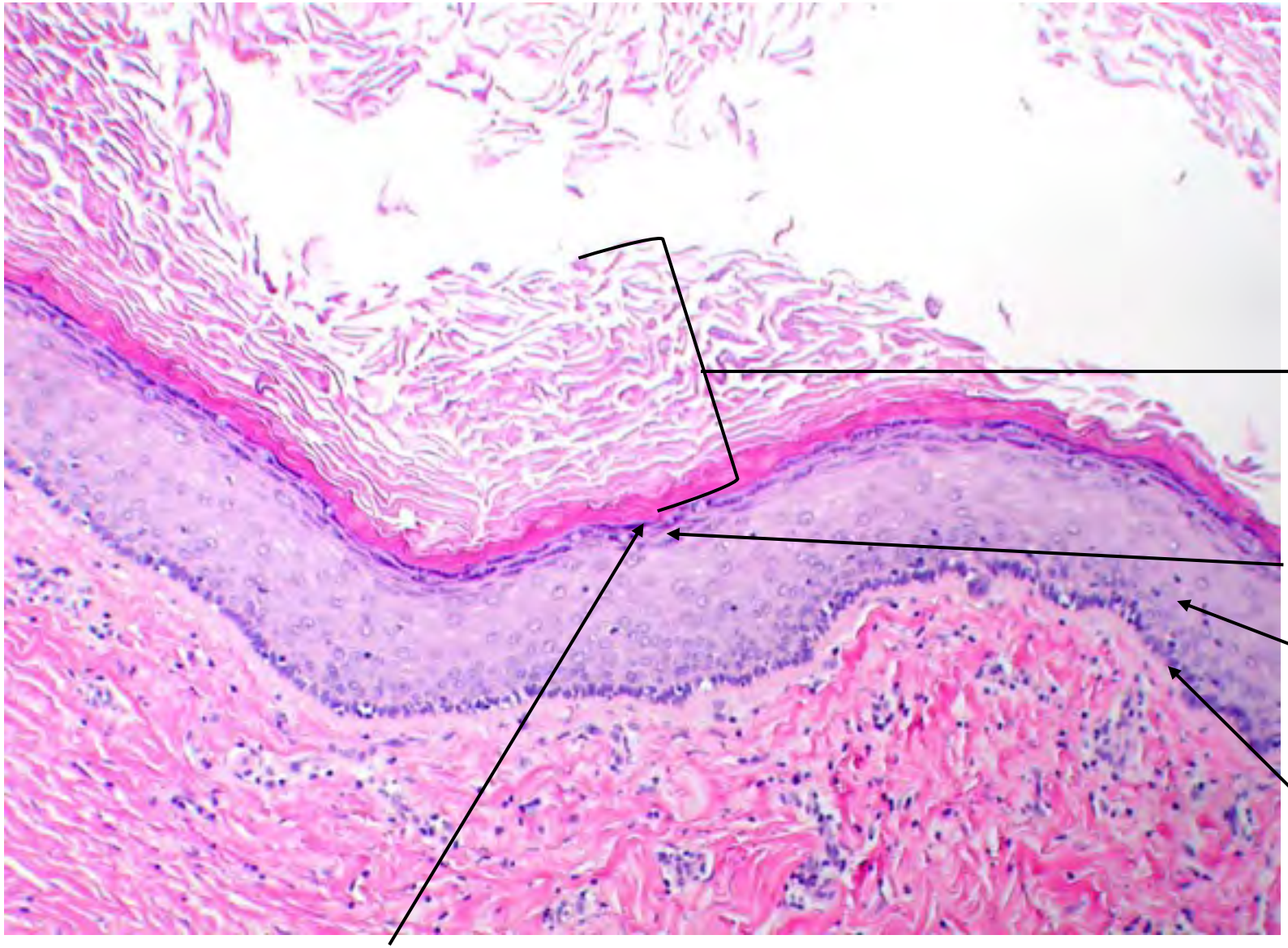
Hair Follicle
(with Hair Root)



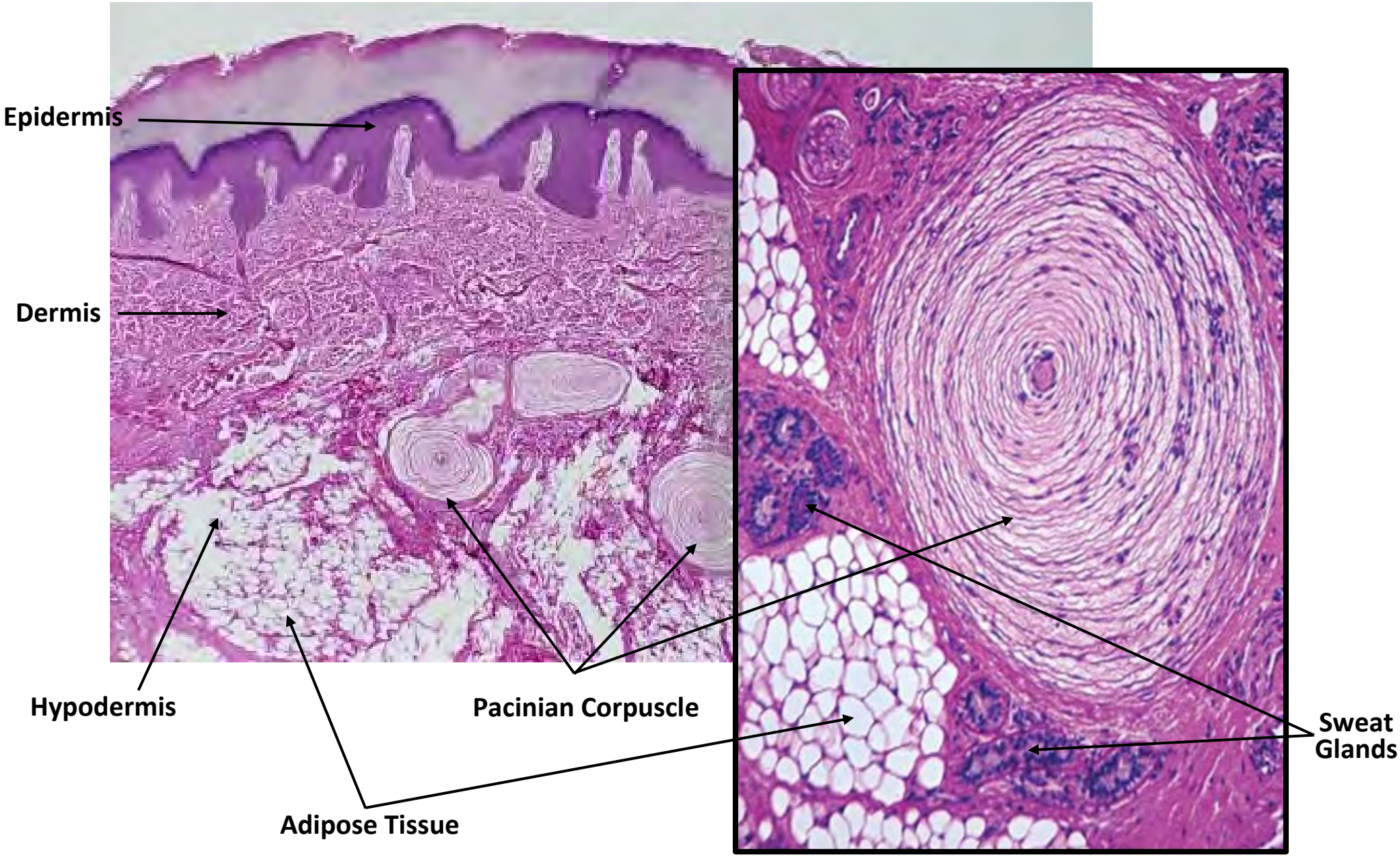


Sweat Glands

SKIN SLIDES

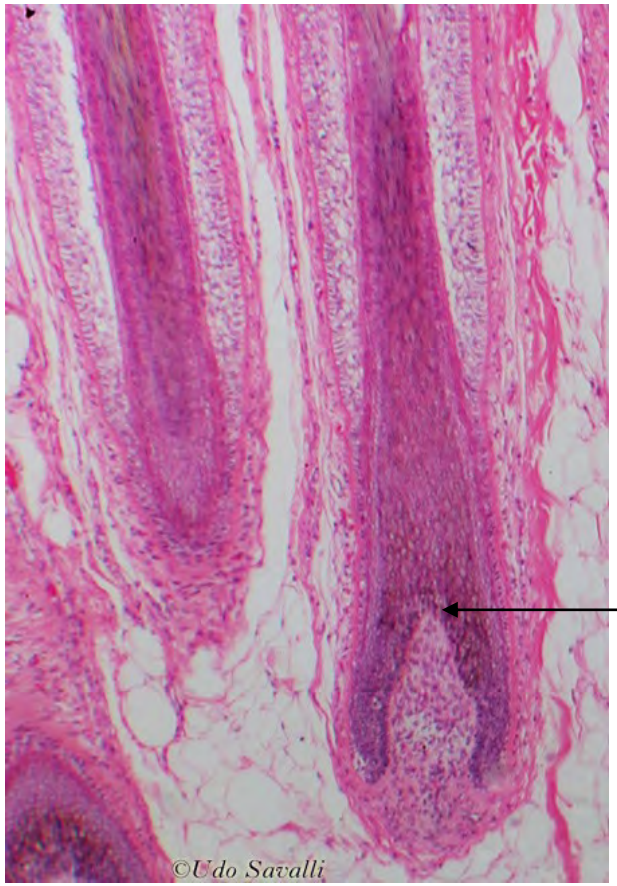

Stratum Corneum
Stratum Granulosum
Stratum Spinosum
Stratum Basale
Stratum Lucidum
(area between Graunlosum & Corneum. Usually cannot be seen)

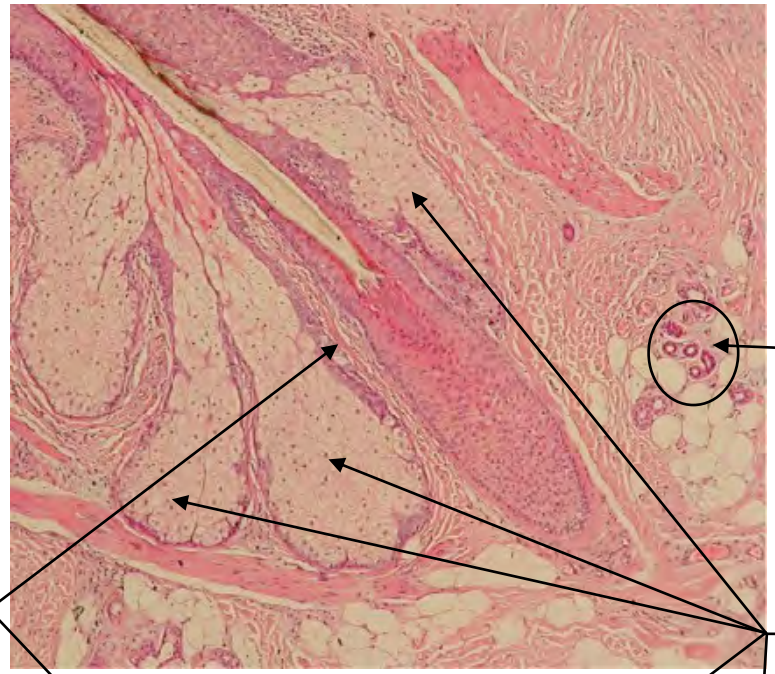
SKIN SLIDES

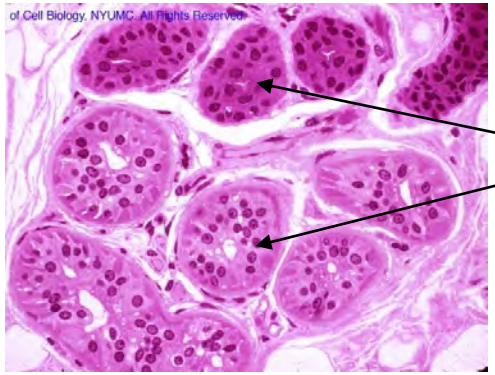

Epidermis
Dermis
Hypodermis
Pacinian Corpuscle
Adipose Tissue
Sweat Glands

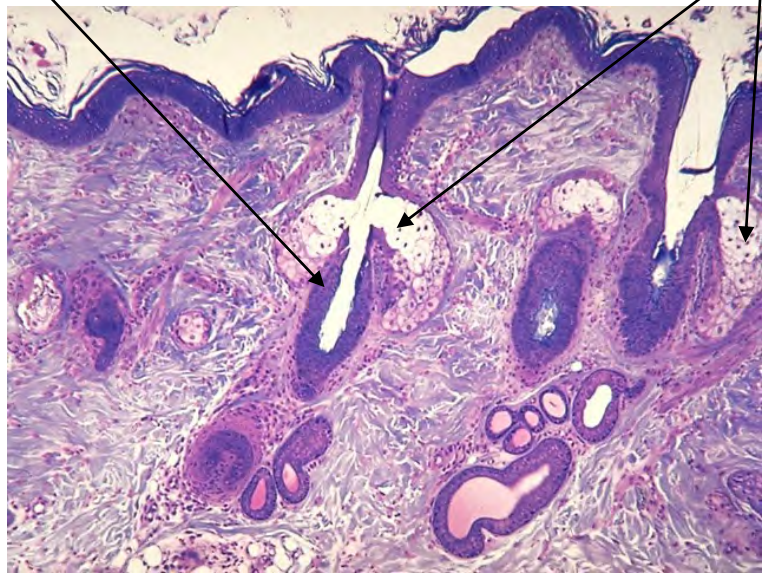
SKIN SLIDES

SKIN SLIDES

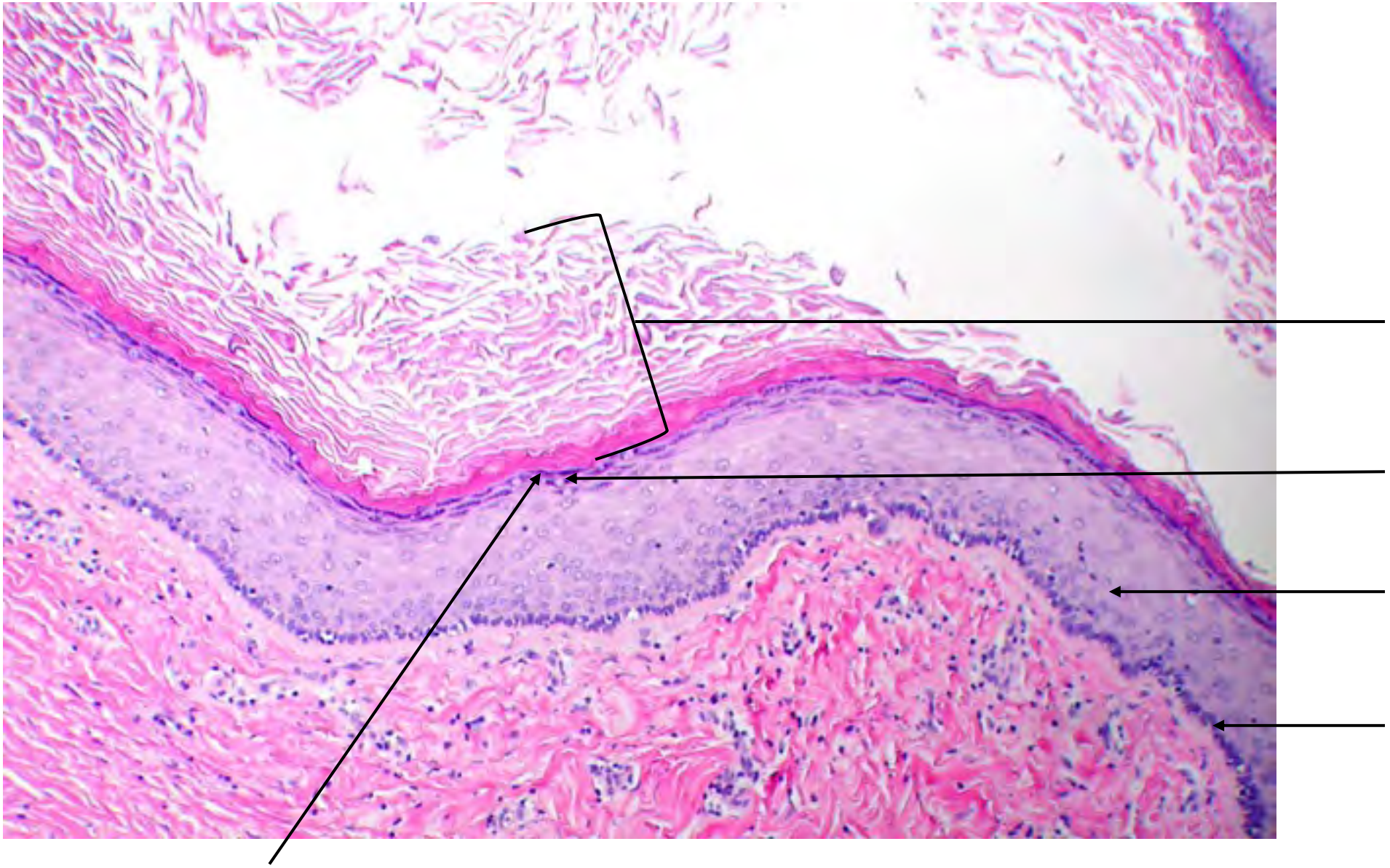








SKIN SLIDES



SKIN SLIDES