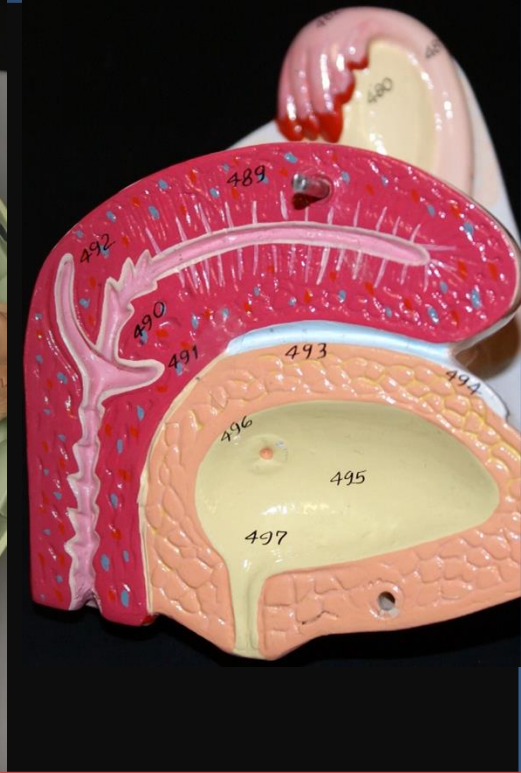
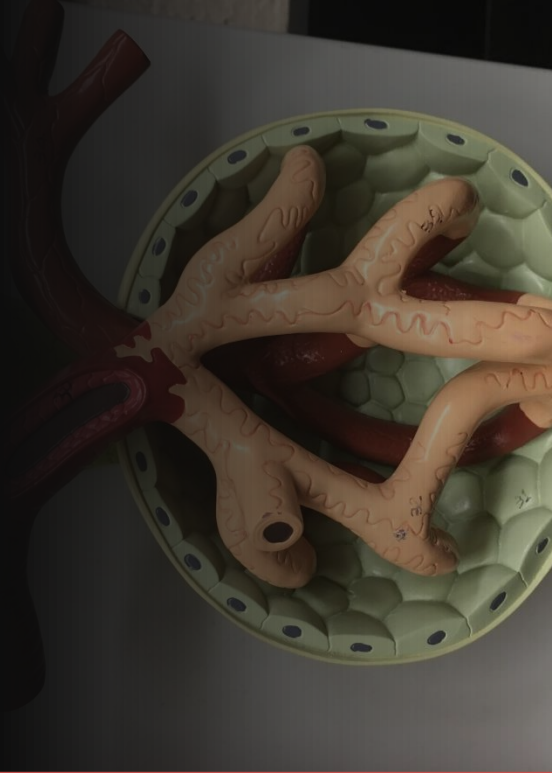
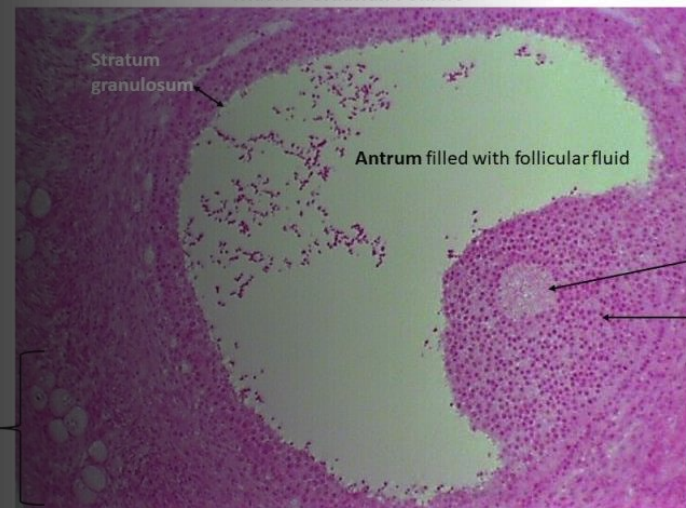


# Virtual Lab Practical 5 Review Pictures



Endocrine System  
Urinary System  
Reproductive System

Mature Graafian Follicle



Primary follicles  
in the surface of  
the ovary.

Secondary Oocyte

Cumulus oophorus,  
which is a thickened  
mound of granulosa cell.  
These cells that surround  
the oocyte and remain after  
ovulation are called the  
corona radiata.

# Chapters Reviewed

Endocrine System

Urinary System

Reproductive System

- Study the pictures of the tissues and labeled models as part of your online lab experience.
- Be familiar with the pictures and each label within this review. These pictures are used for your lab exam.
- Review Dr. Gannon's instructional videos over the endocrine, urinary and reproductive system. Be able to identify all the structures she covers on the models.
- Remember to use the zoom function if you need to increase or decrease the size of the image.

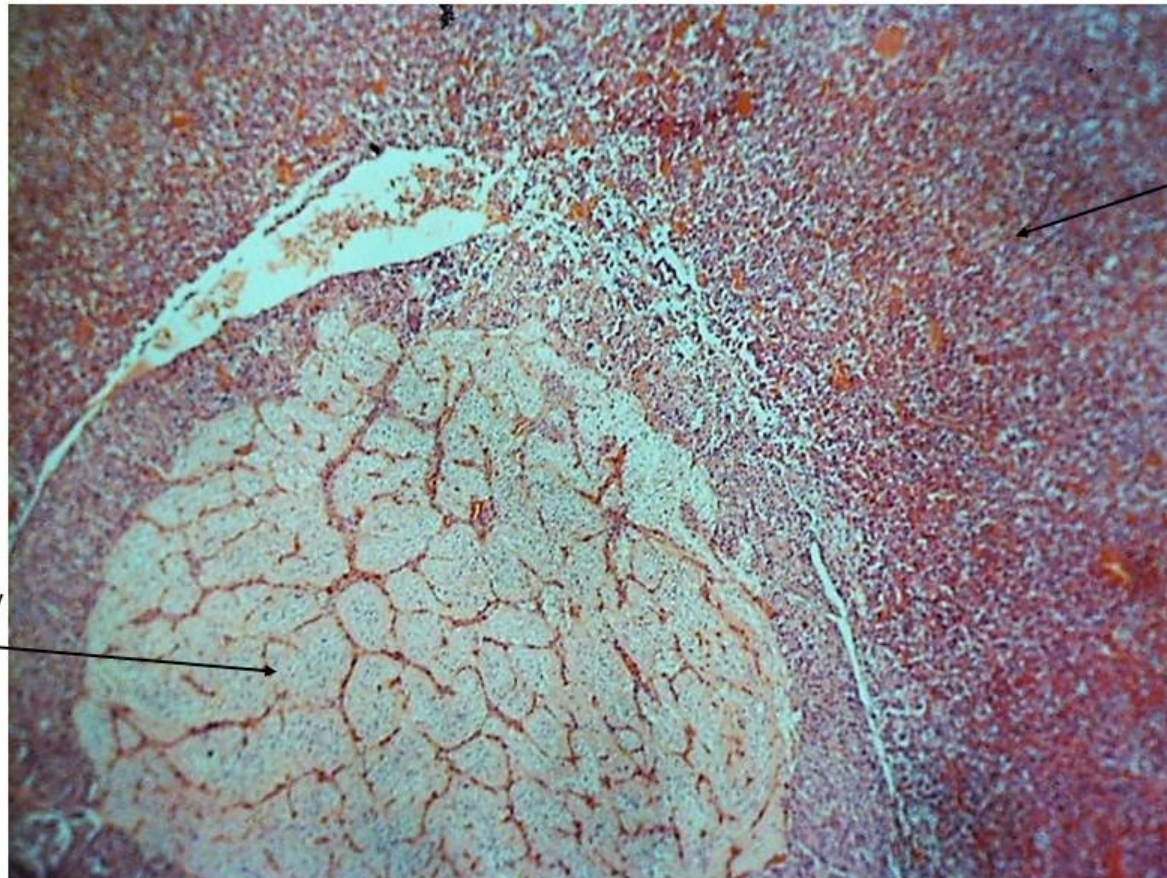
# Endocrine System

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# Pituitary Gland

**Pituitary Gland (Hypophysis)**



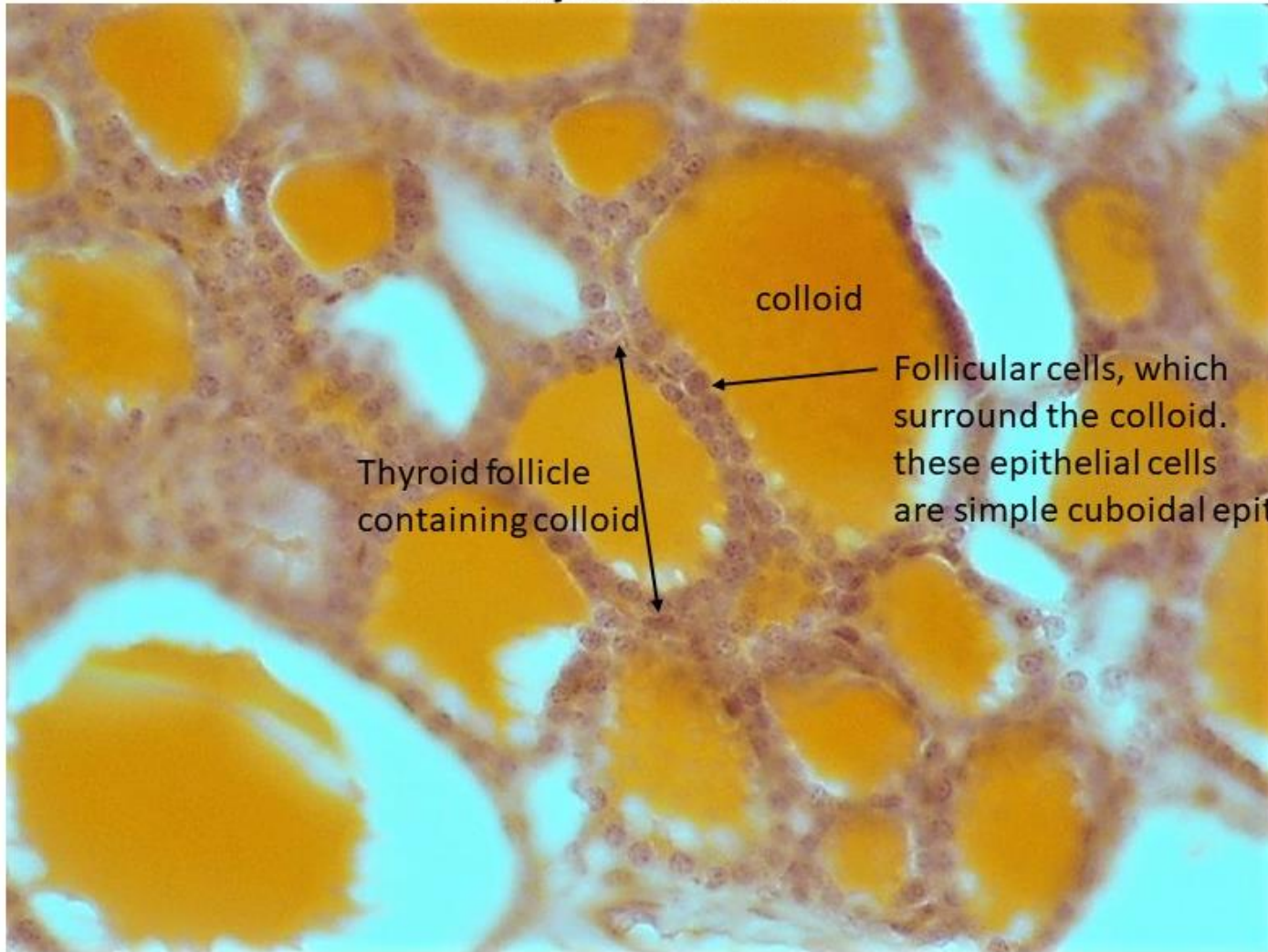
Be able to identify the anterior and posterior pituitary glands

The anterior pituitary (adenohypophysis) consists of glandular tissue and stains darker than the posterior pituitary.

The posterior pituitary (neurohypophysis) is comprised of nervous tissue and stains much lighter than the anterior pituitary.

# Thyroid Gland

## Thyroid Gland



colloid

Follicular cells, which surround the colloid. these epithelial cells are simple cuboidal epithelium

Thyroid follicle containing colloid

# Parathyroid Gland

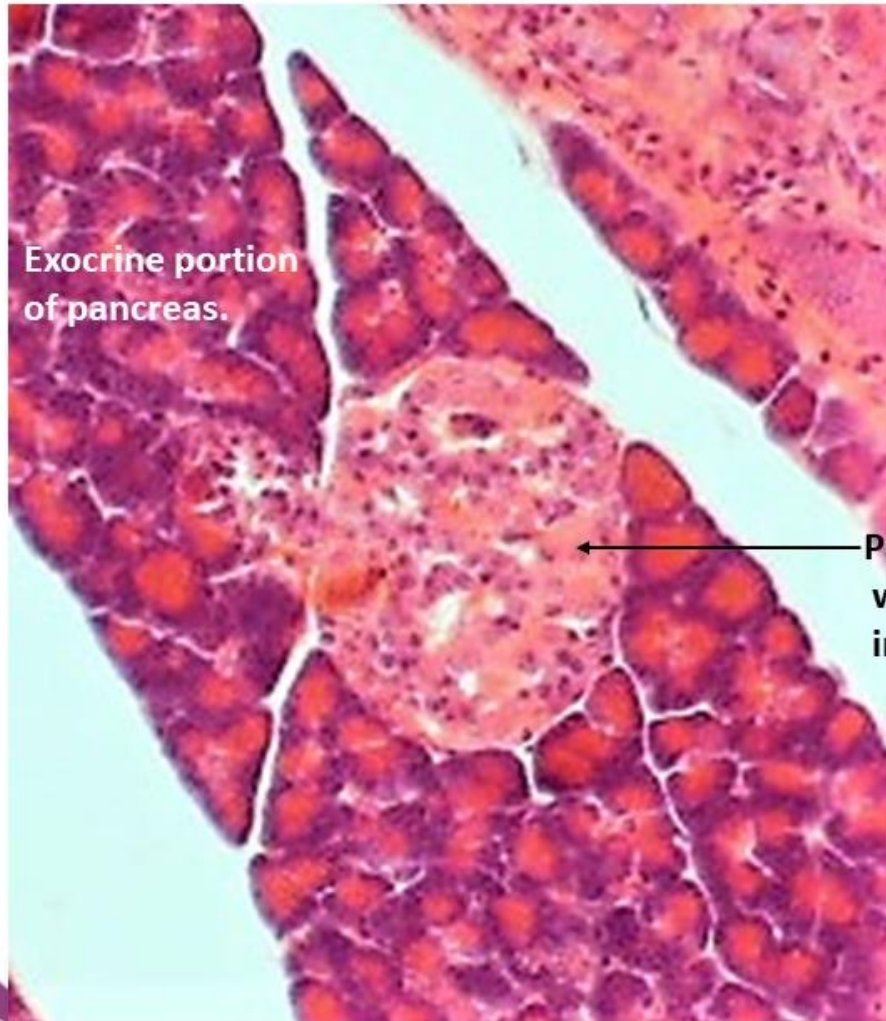


Thyroid Gland

**Parathyroid Gland**-Embedded →  
in the posterior aspect of thyroid  
gland, which surrounds the  
parathyroid gland.

# Pancreas- Pancreatic Islet

**Pancreas-islet of Langerhans (Pancreatic Islet) Surrounded by Exocrine Portion of Pancreas.**



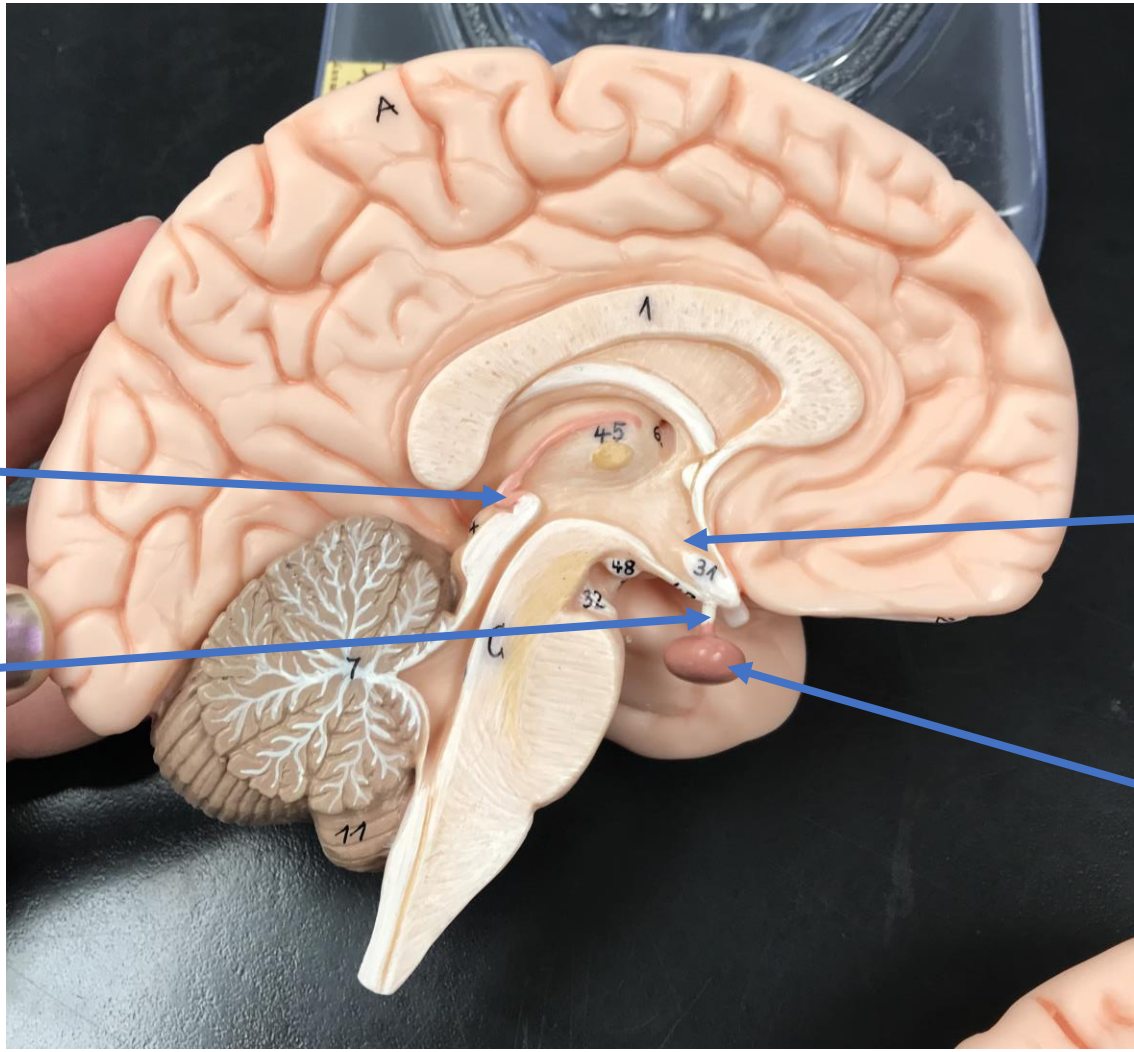
Exocrine portion  
of pancreas.

← Pancreatic Islet, (hormone producing)  
which secretes hormones such as  
insulin and glucagon.

Identify the endocrine glands in the brain:

- Hypothalamus
- Pituitary gland
- Pineal gland

Be able to identify the Infundibulum



Pineal gland

Infundibulum

Hypothalamus

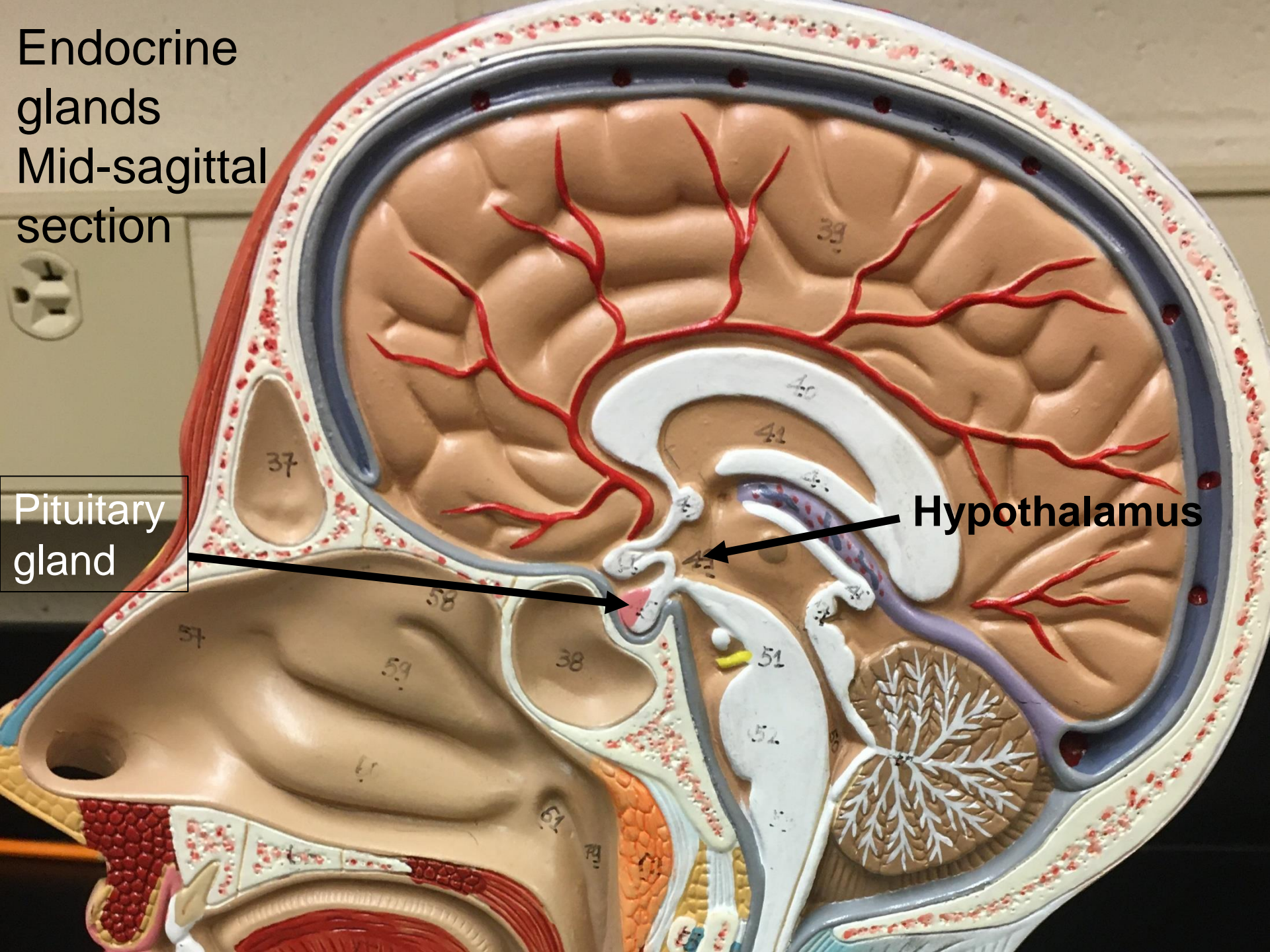
Pituitary gland

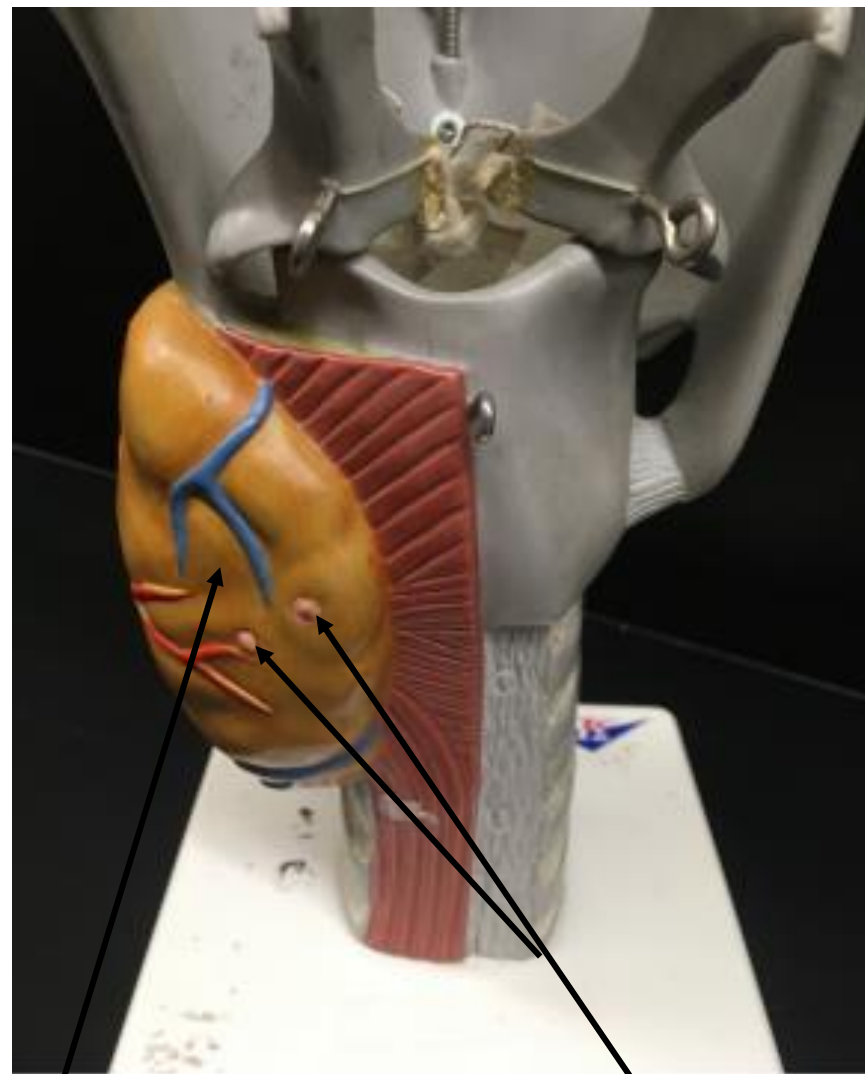
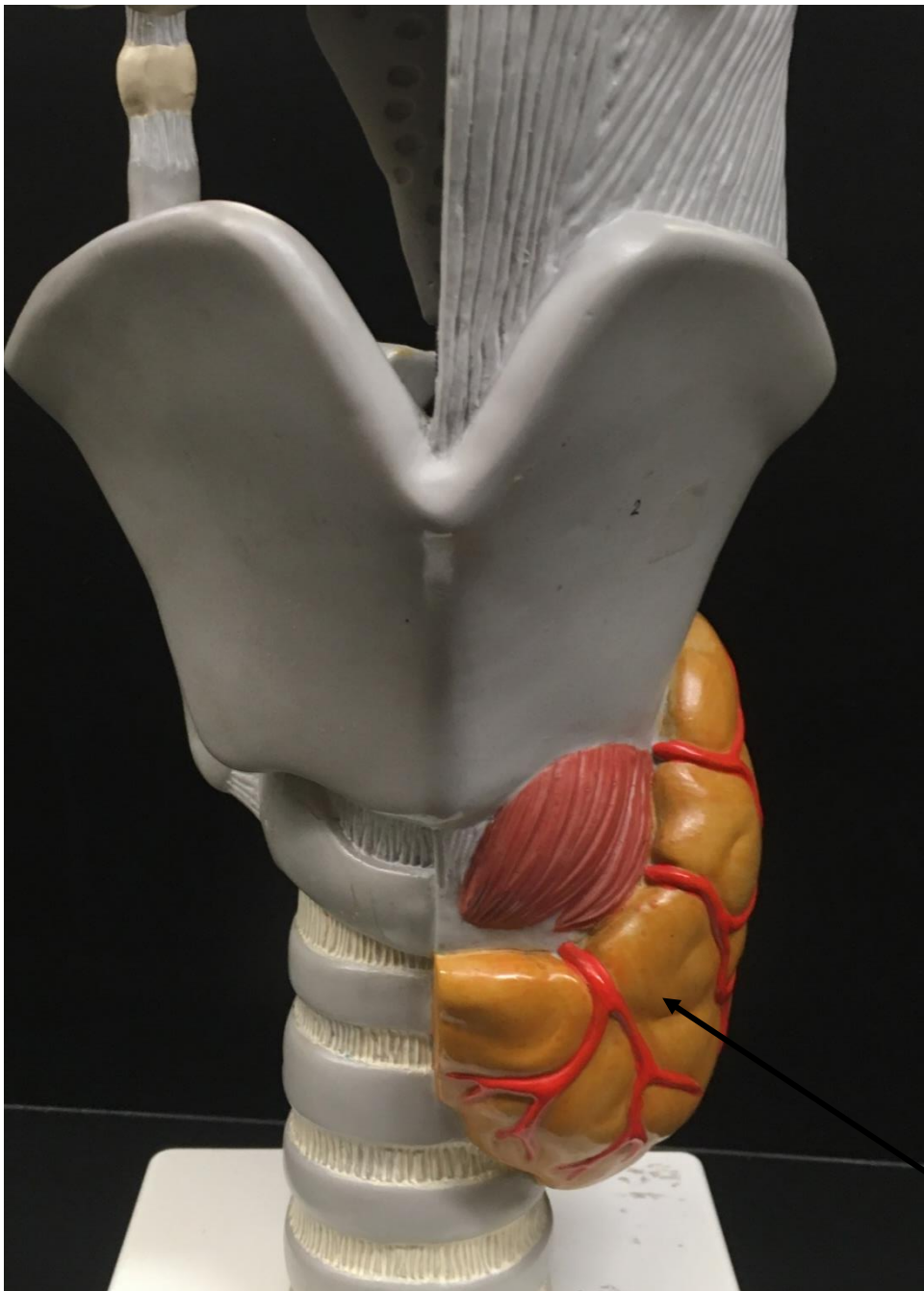


Endocrine glands  
Mid-sagittal section

Pituitary gland

Hypothalamus





Thyroid gland

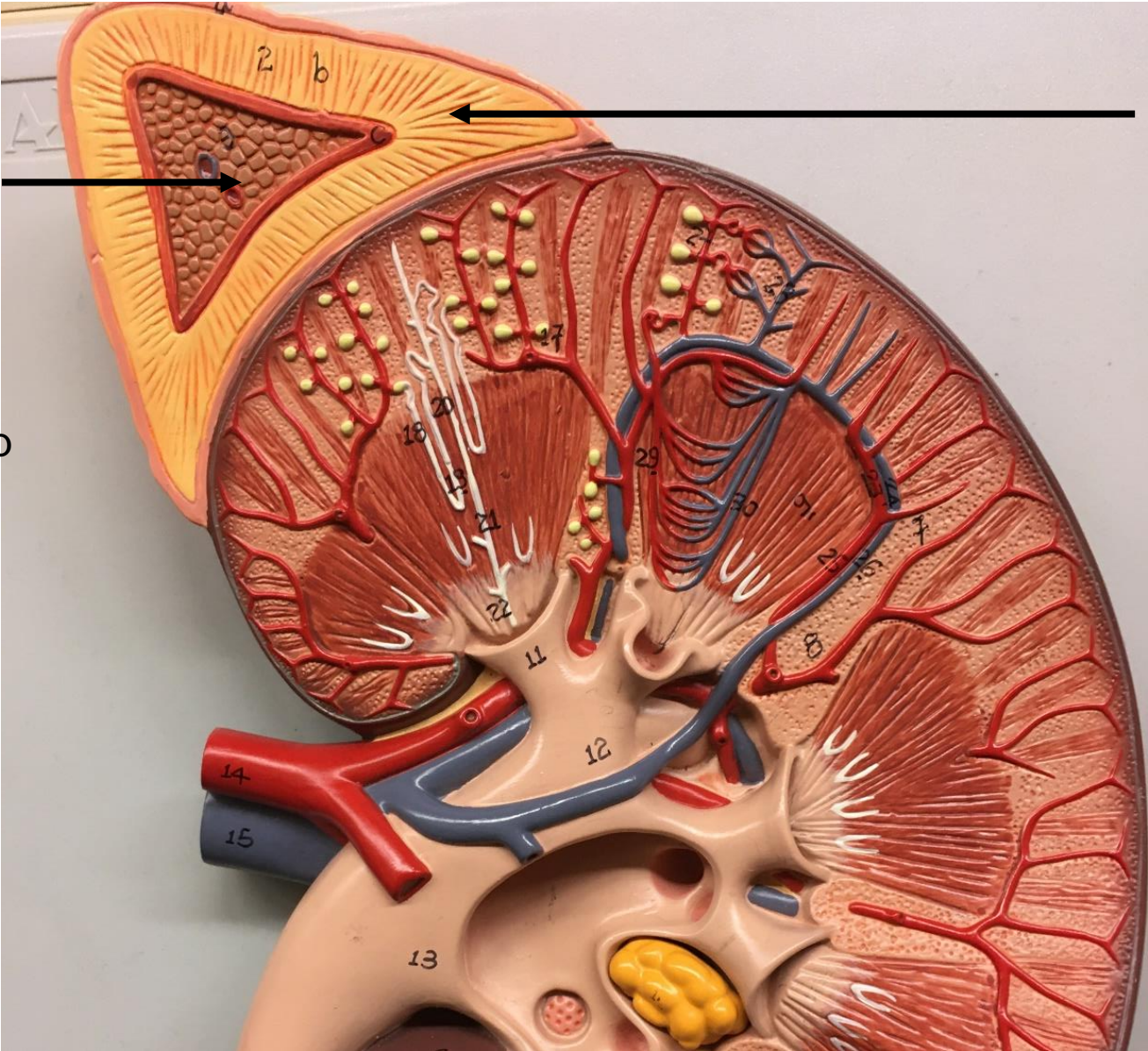
Parathyroid glands

# Adrenal Gland

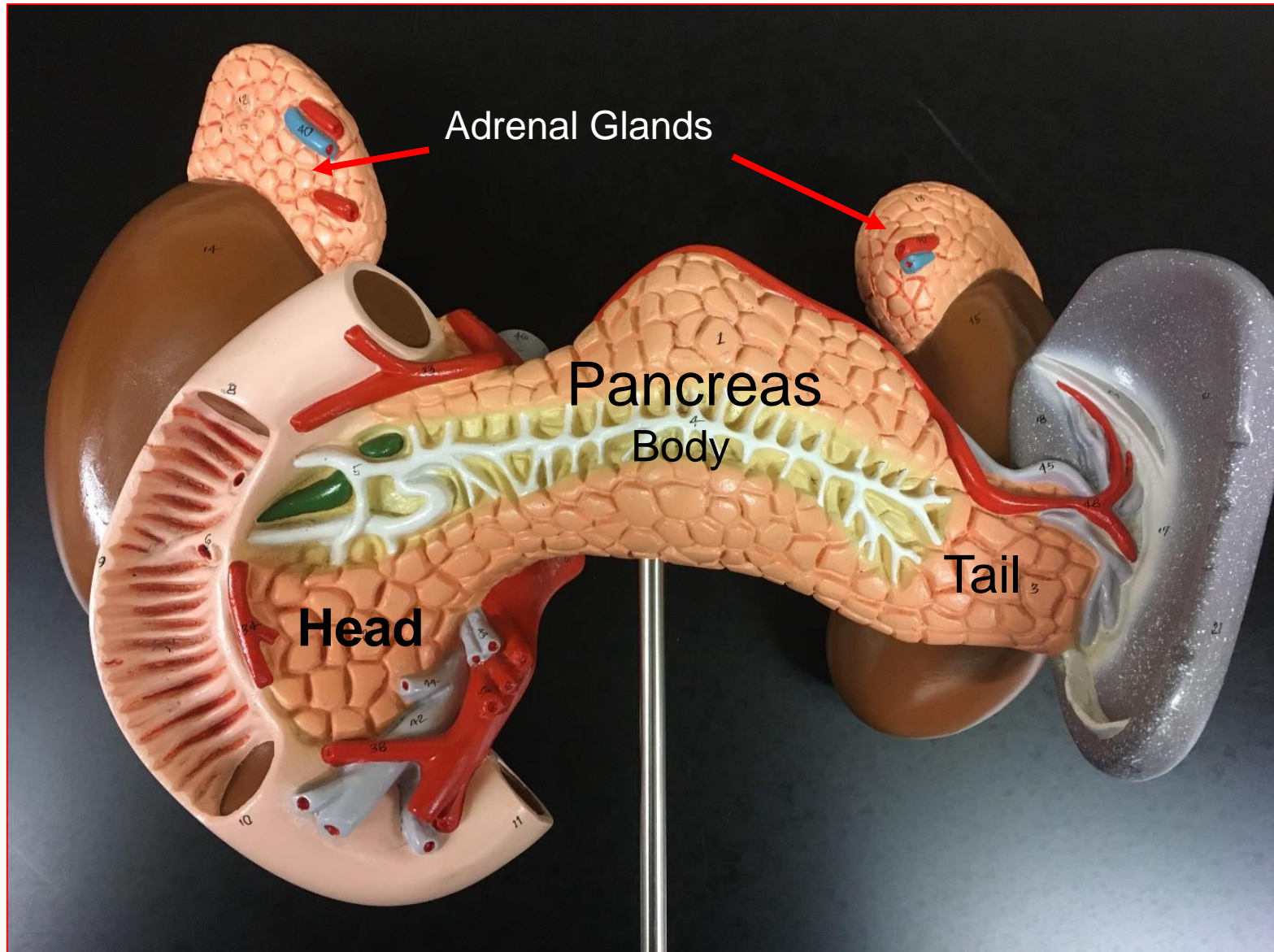
Adrenal medulla

Adrenal cortex

The adrenal gland sits on top of the kidney



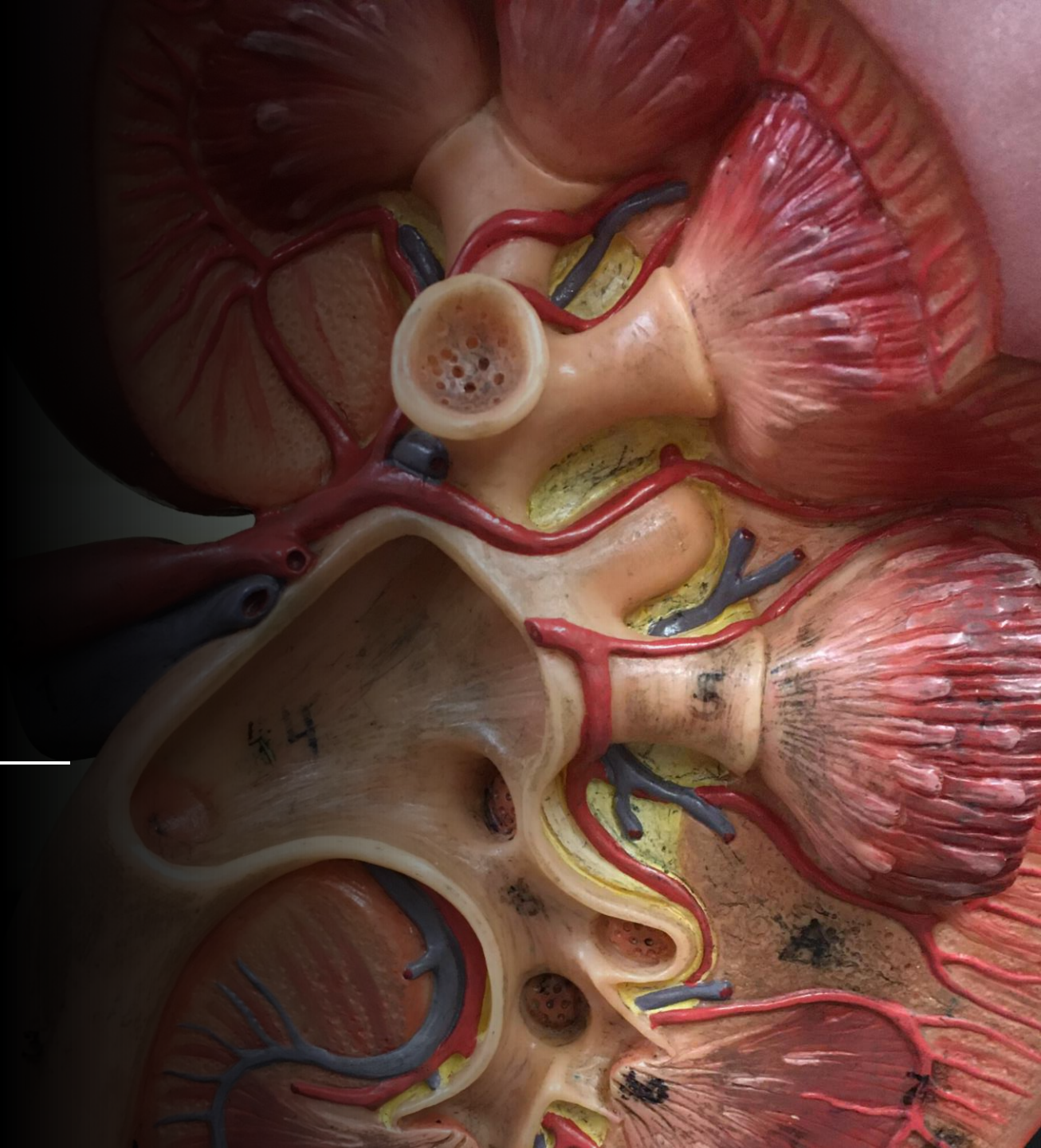
# Adrenal Glands and Pancreas





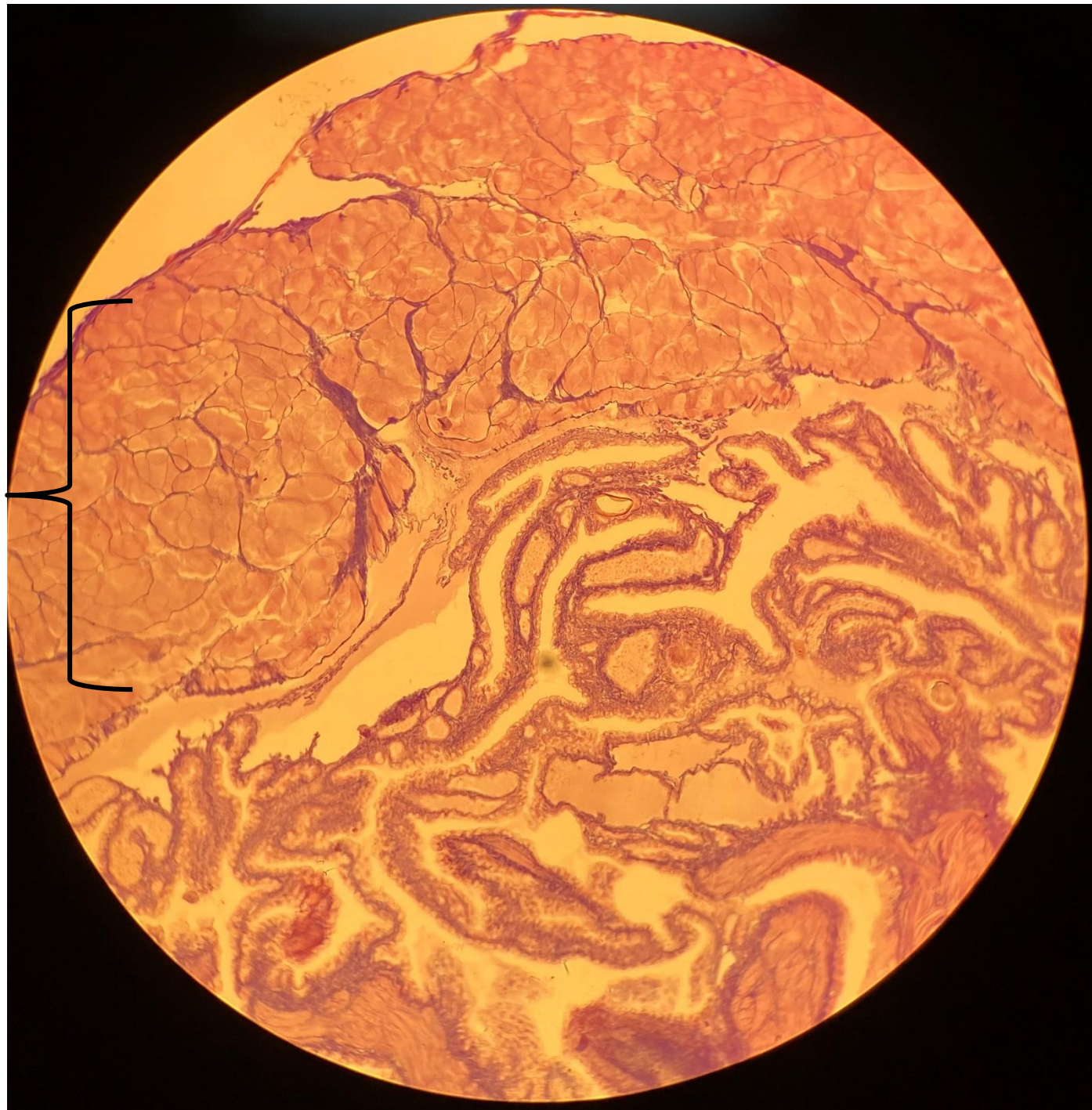
# Urinary System

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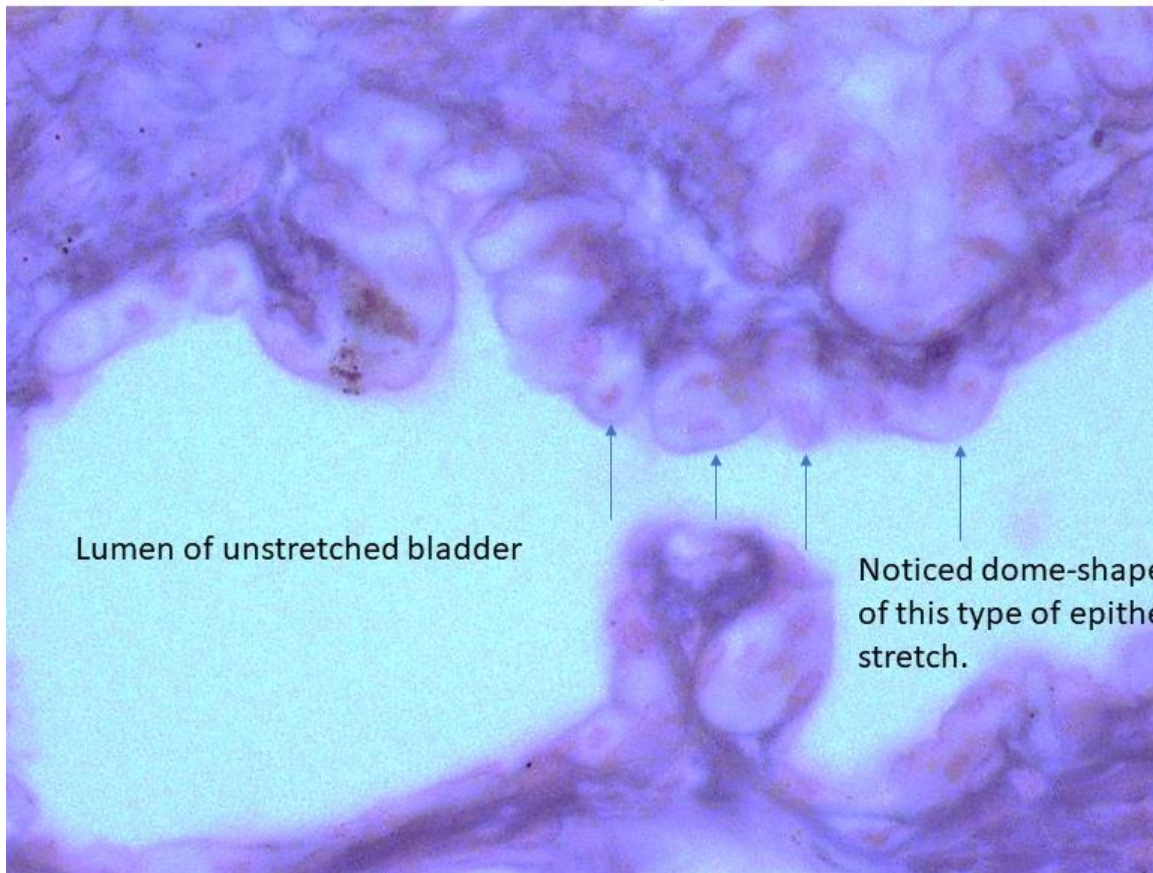
Identify the  
detrusor muscle  
in the urinary  
bladder

Detrusor  
Muscle



# Transitional Epithelium

Transitional Epithelium




Lumen of unstretched bladder

Noticed dome-shaped apical surface of this type of epithelium, which allows for stretch.

# Transitional Epithelium Higher Magnification

## Transitional Epithelium

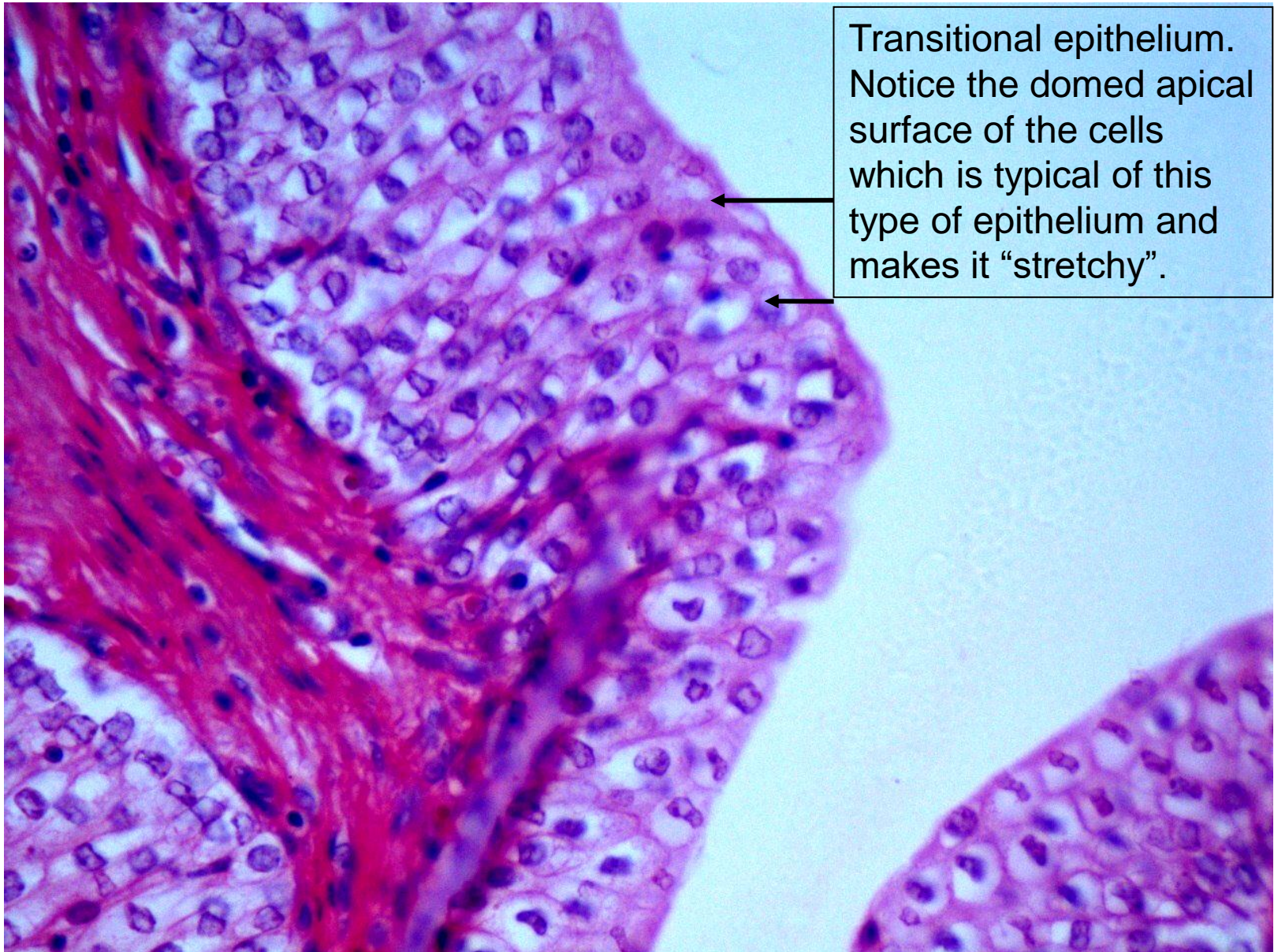
Noticed domed apical surface, which allows for stretch of this type of epithelium.

A light micrograph showing a section of transitional epithelium. The tissue is stained with hematoxylin and eosin (H&E), giving it a pink and purple appearance. The epithelium is composed of multiple layers of cells. The surface layer consists of large, rounded, dome-shaped cells (umbrella cells) with a distinct apical surface. The underlying layers consist of smaller, more rounded cells. The overall structure is thick and multi-layered, characteristic of transitional epithelium found in the urinary bladder. An arrow points from the text to one of the dome-shaped cells on the surface.

Lumen of unstretched bladder.

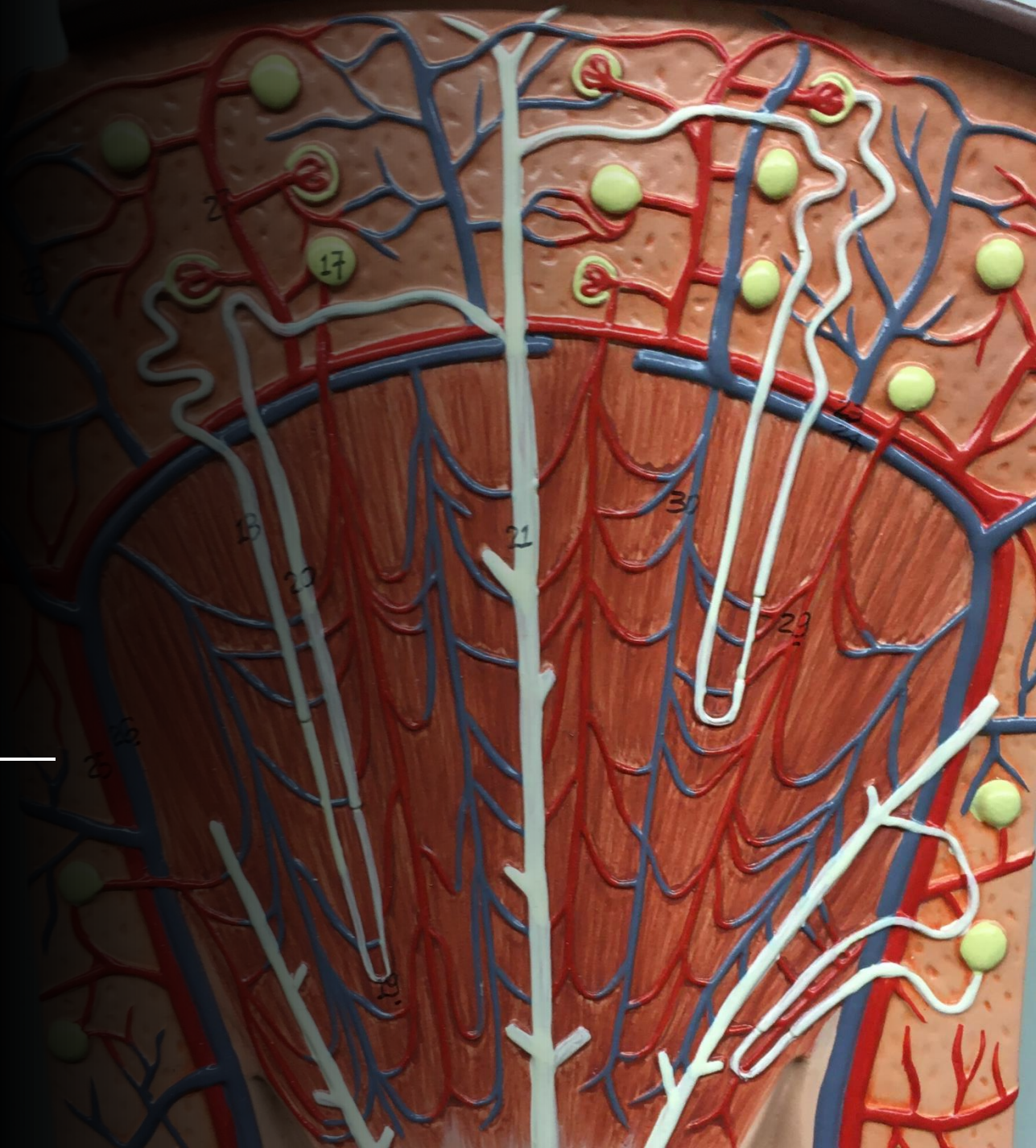


# Transitional Epithelium

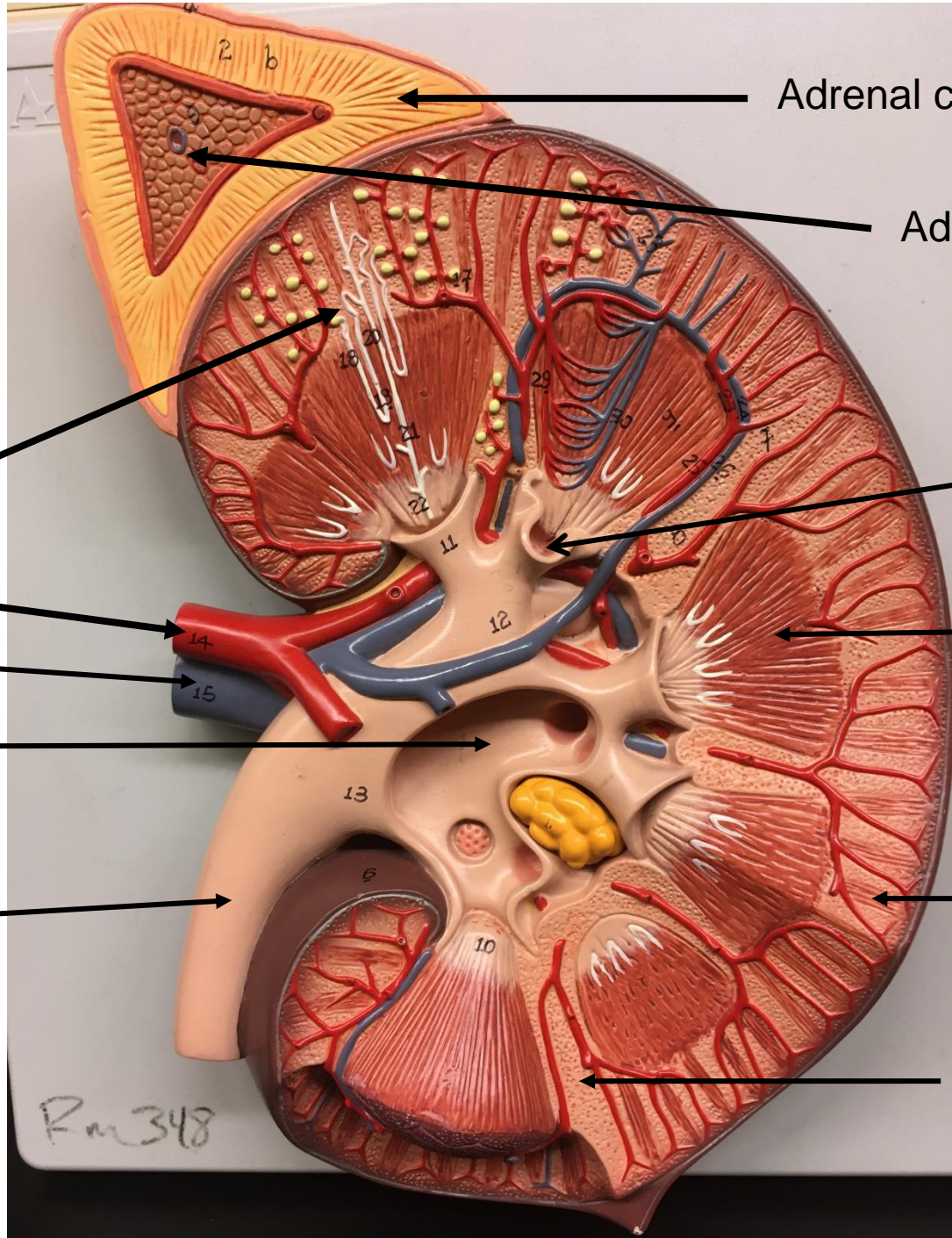


# Urinary System

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# Urinary System Kidney Model



Adrenal cortex

Adrenal medulla

Minor calyx

Renal pyramid

Renal cortex  
(outer layer)

Renal  
column

Nephron

Renal artery

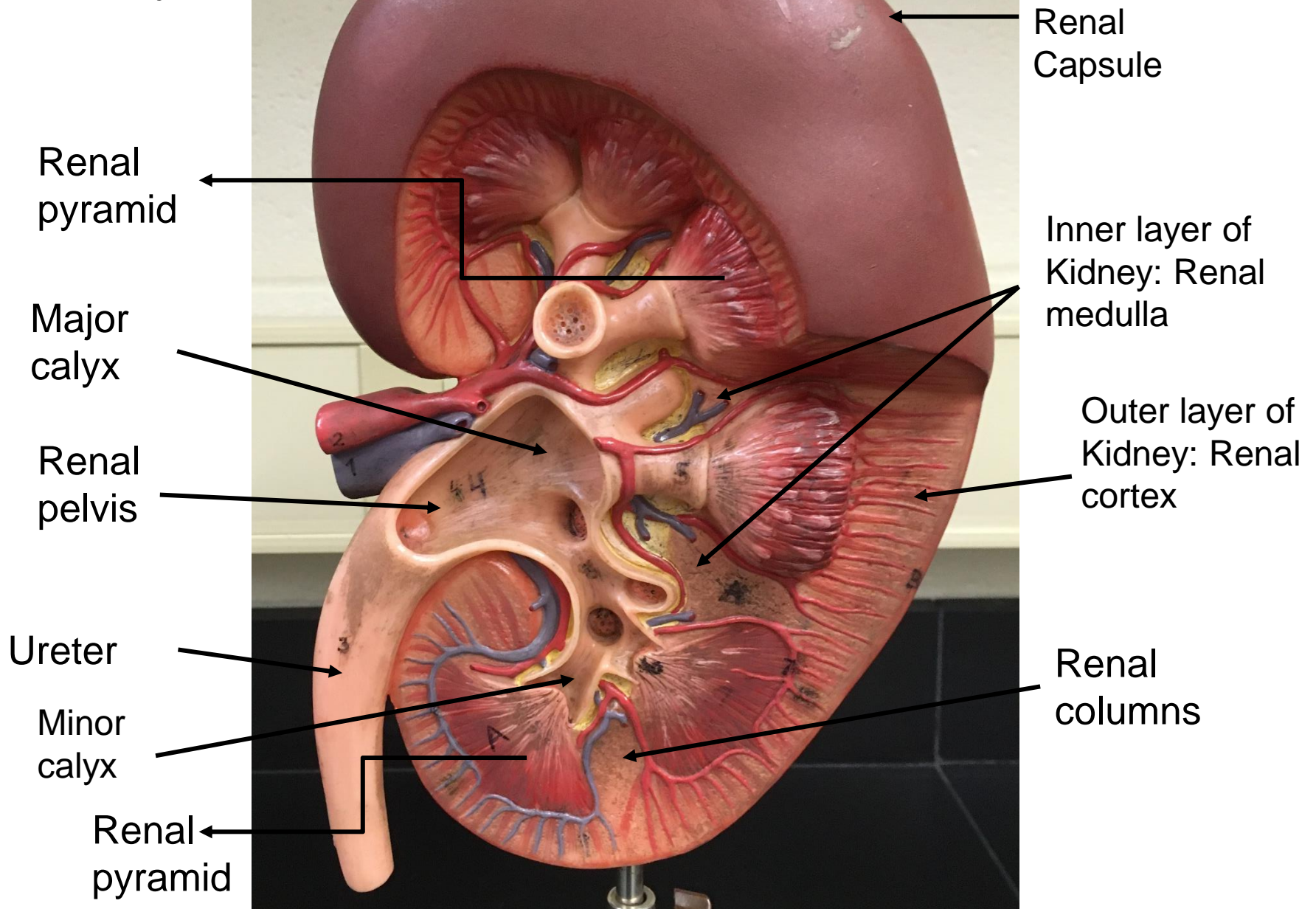
Renal vein

Major calyx

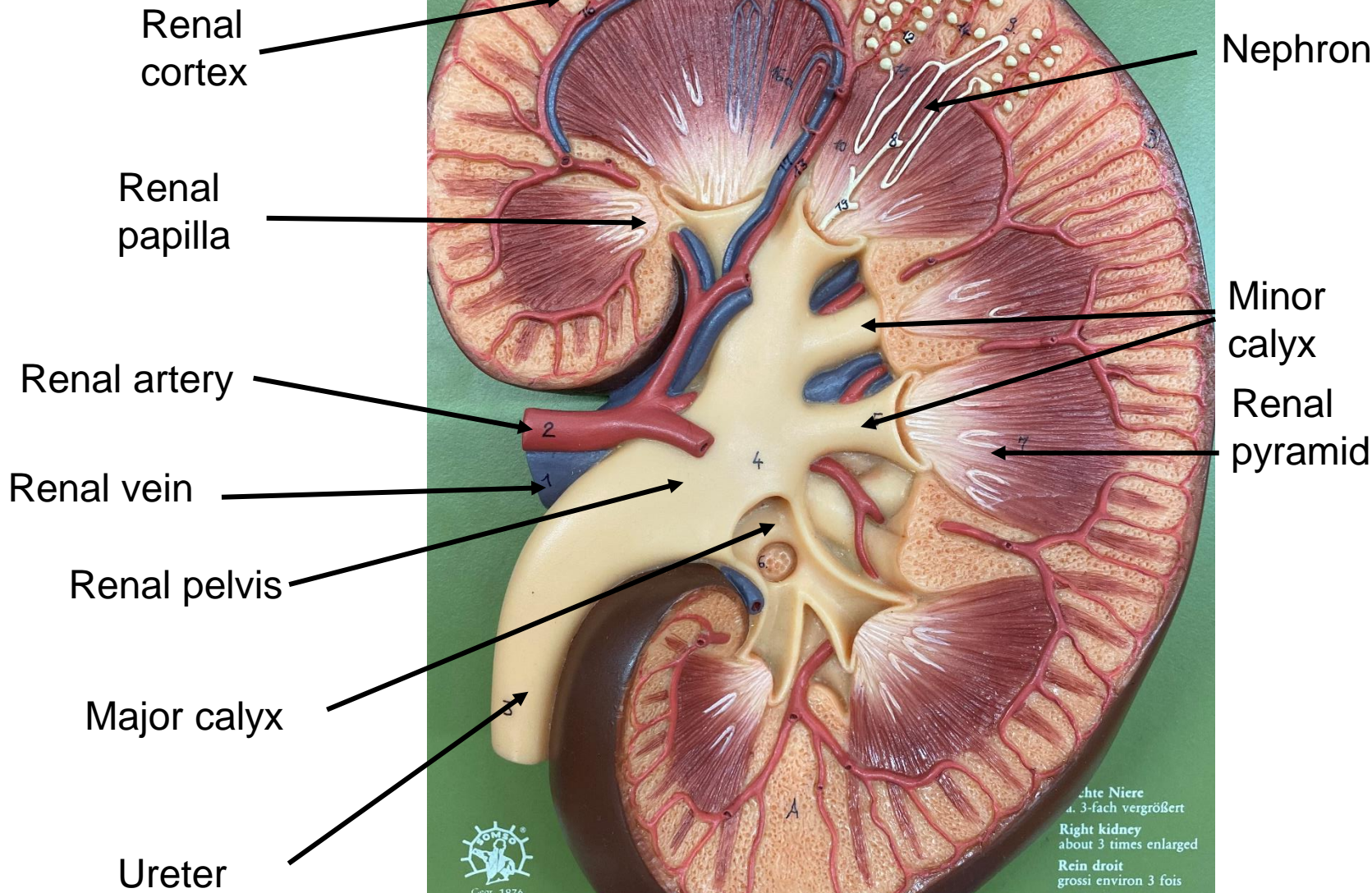
Ureter

Rm 348

# Kidney Anatomy



# Kidney Anatomy

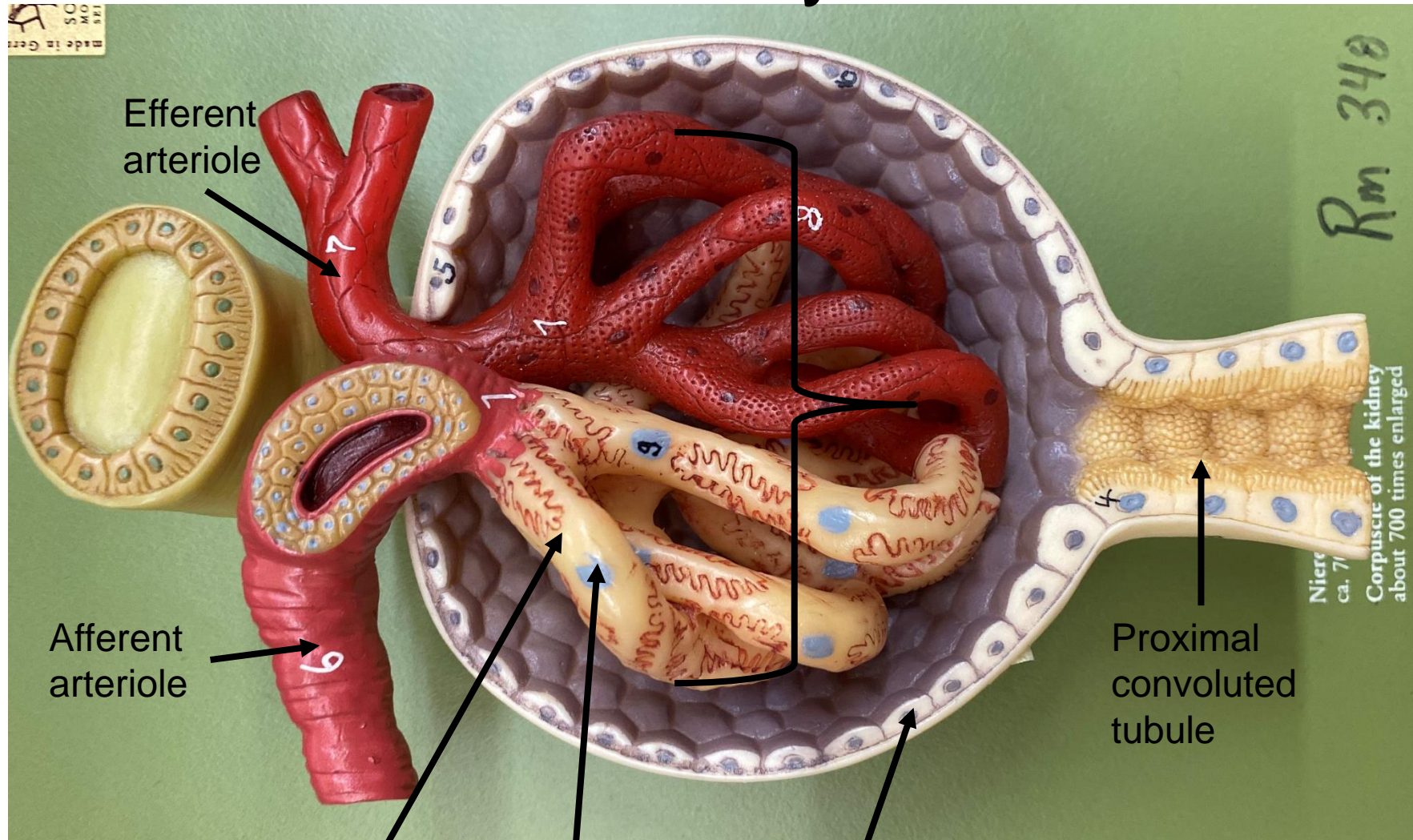


LS 9

Rechte Niere  
a. 3-fach vergrößert  
Right kidney  
about 3 times enlarged  
Rein droit  
grosi environ 3 fois  
Riñón derecho  
ampliado unas tres veces



# Renal Corpuscle Anatomy



Efferent arteriole

Afferent arteriole

Visceral layer of glomerular capsule

Podocyte

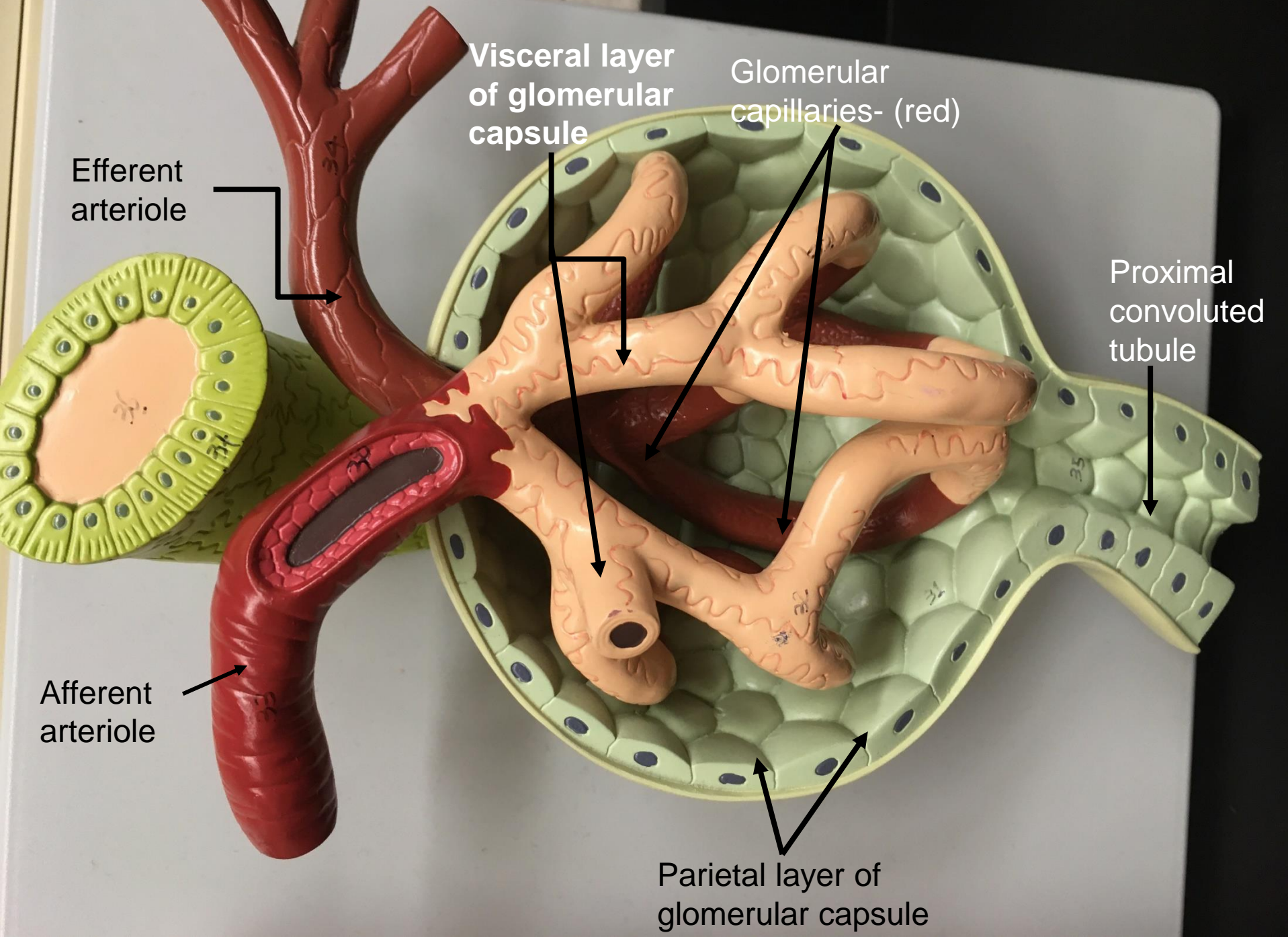
Parietal layer of glomerular capsule

Proximal convoluted tubule

Rm 340

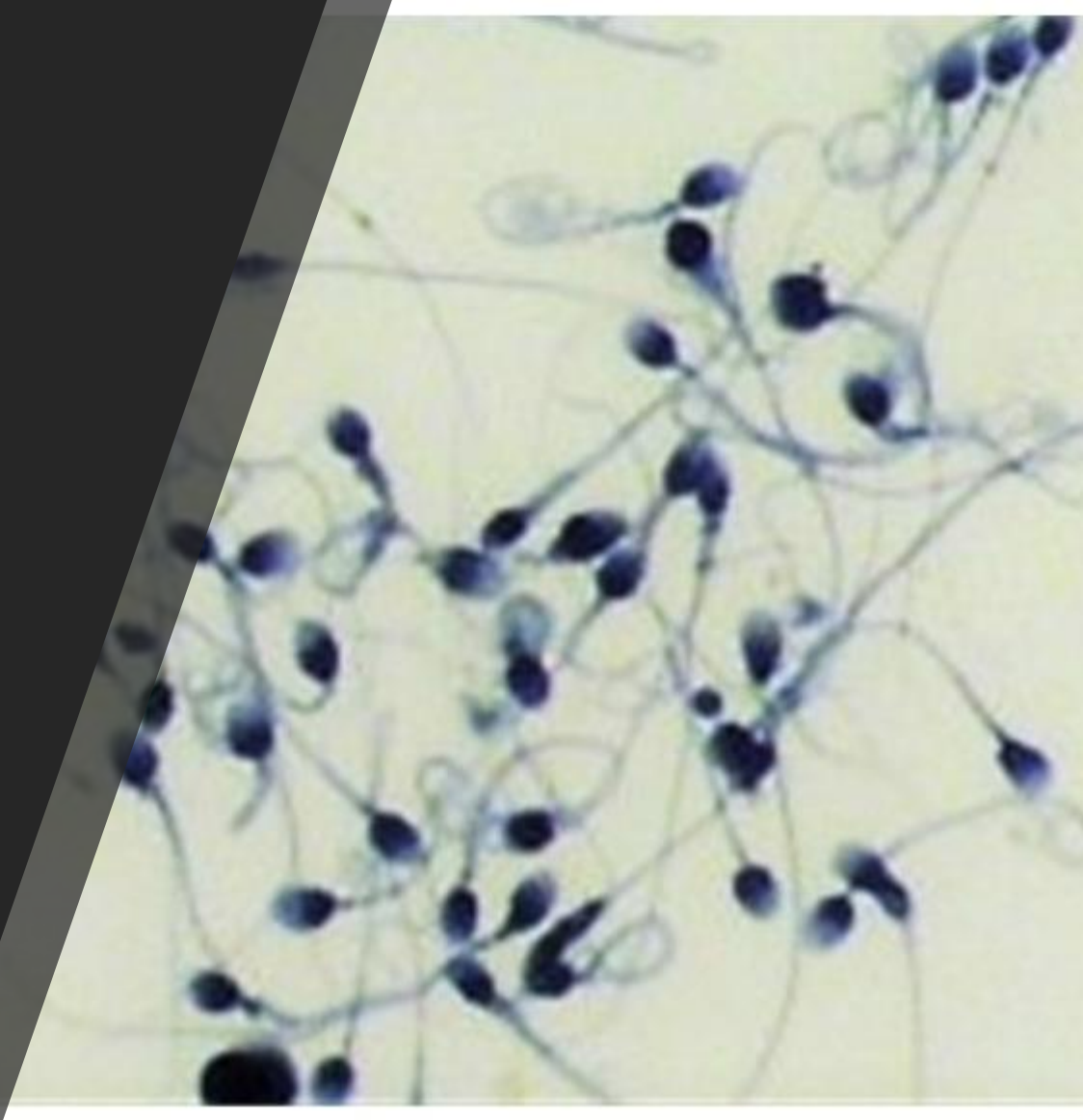
Niere ca. 71

Corpuscle of the kidney about 700 times enlarged





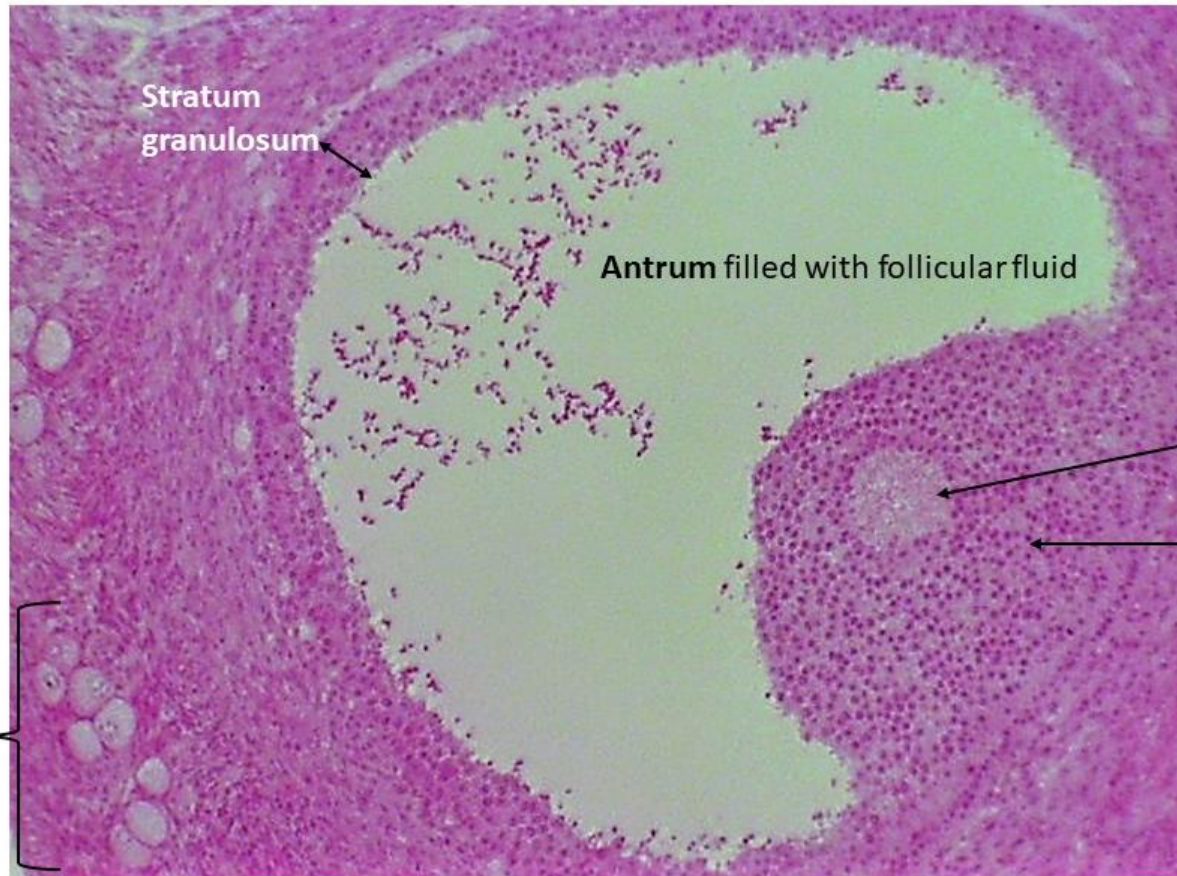
# Reproductive System



# Reproductive System- Female

Identify the following structures in the female  
Mature Graafian Follicle

**Mature Graafian Follicle**



Stratum granulosum

Antrum filled with follicular fluid

Secondary Oocyte

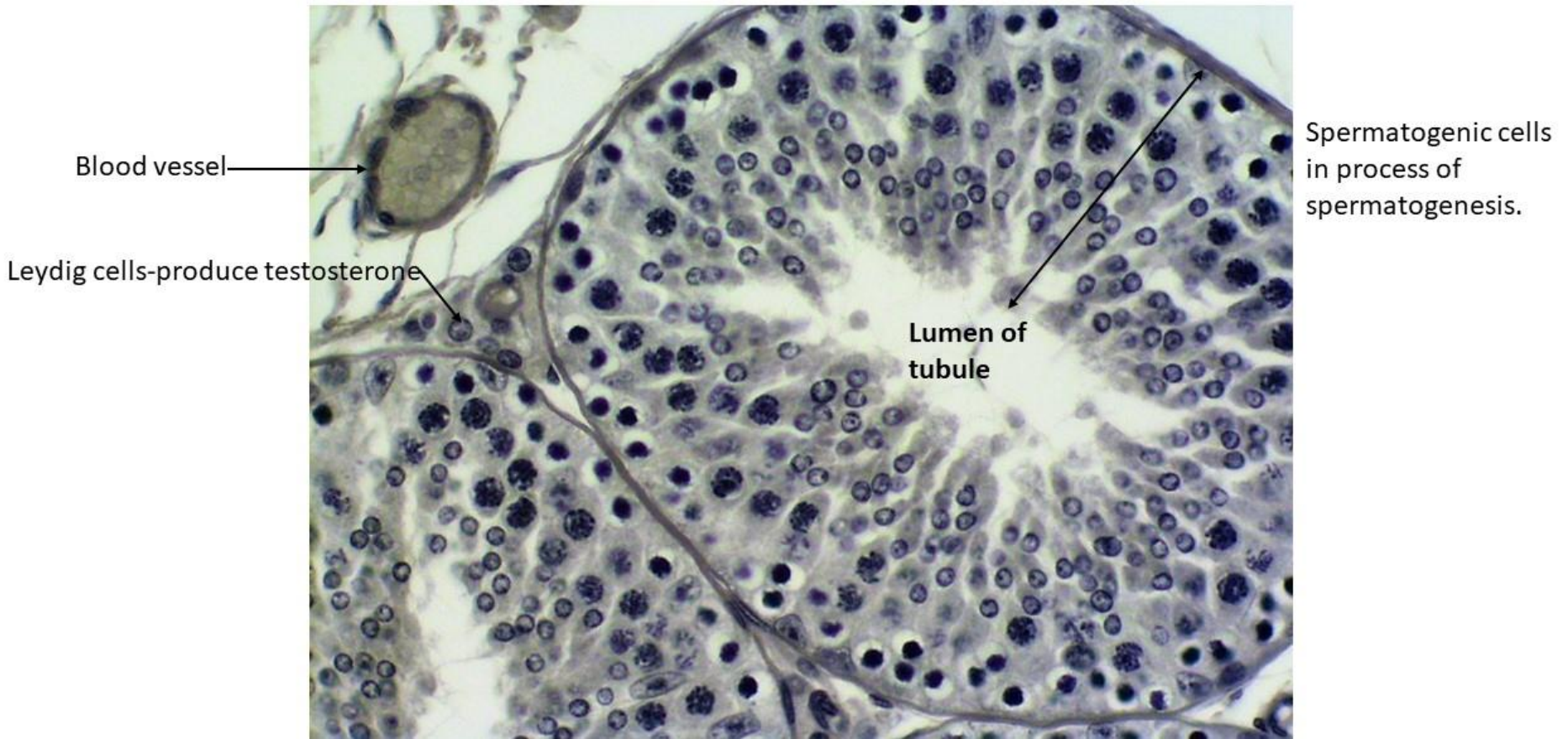
Cumulus oophorus, which is a thickened mound of granulosa cell. These cells that surround the oocyte and remain after ovulation are called the **corona radiata**.

Primary follicles in the surface of the ovary.

# Reproductive System- Male

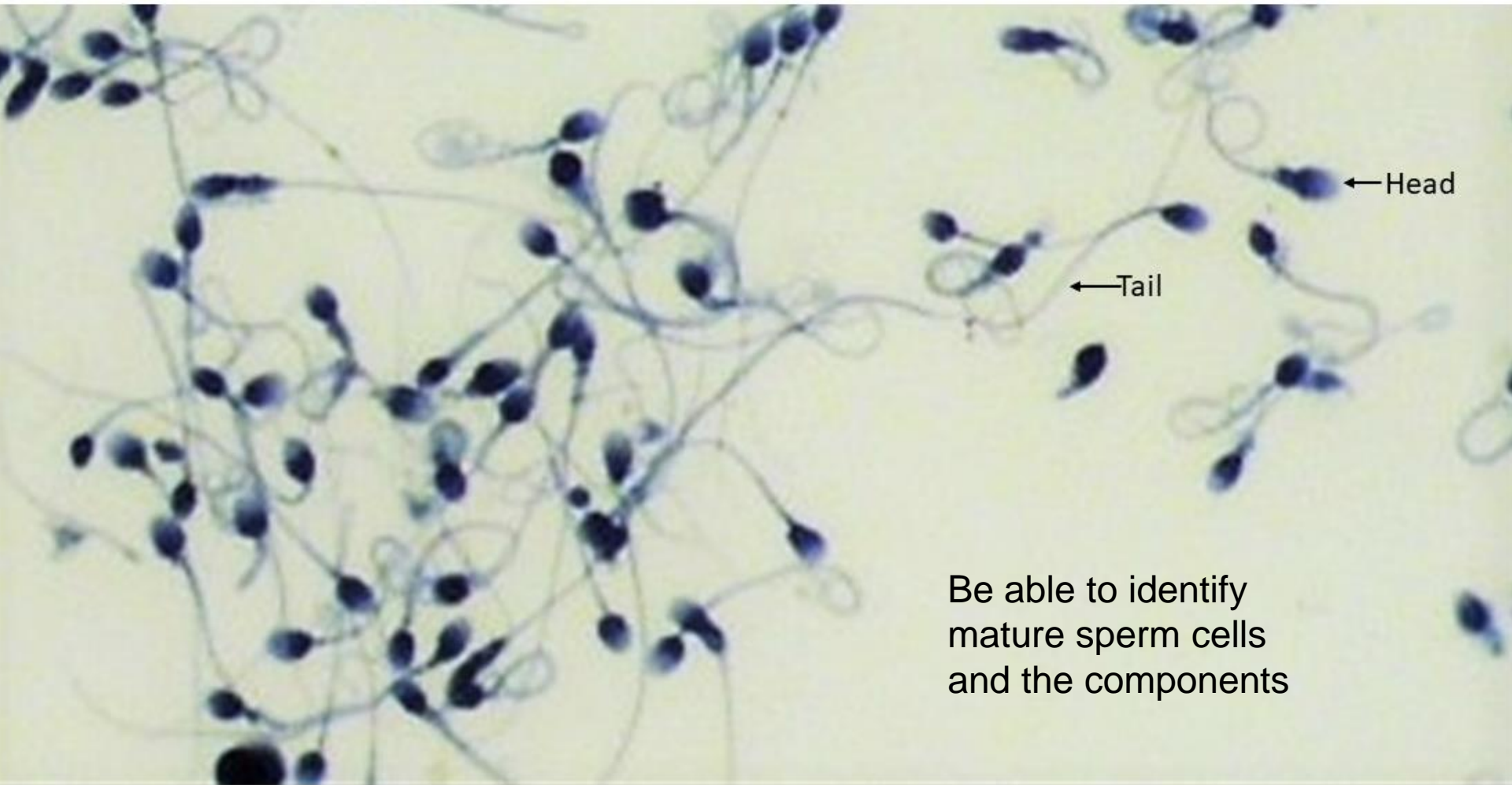
Identify the following structures in the Testes

**Cross-Section of Seminiferous Tubule in Testes**

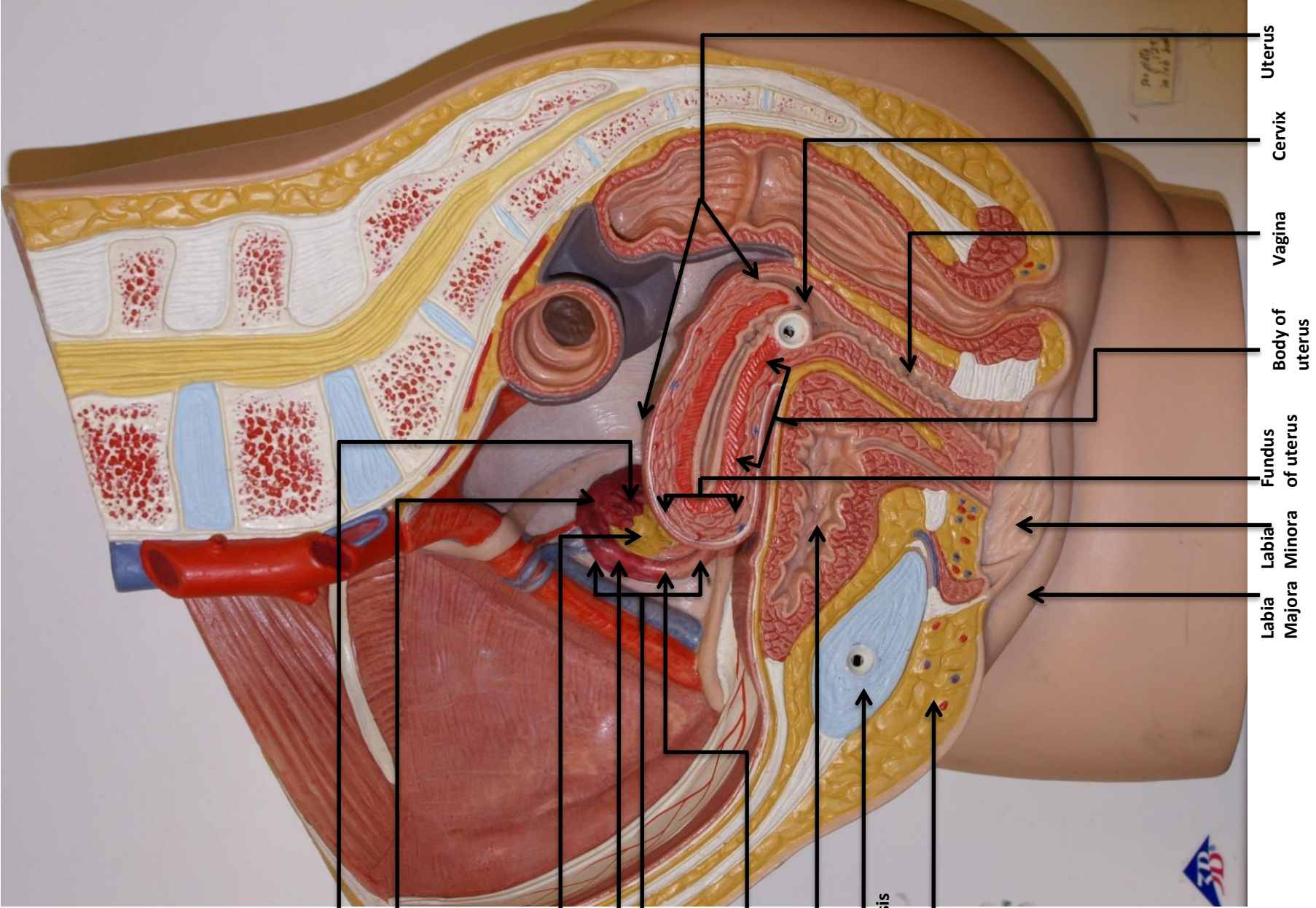


# Reproductive System- Male

## Mature Sperm Cells



Be able to identify  
mature sperm cells  
and the components



Fimbriae

Infundibulum

Ovaries

Ampulla

Uterine tubes

Isthmus

Urinary bladder

Pubic Symphysis

Mons pubis

Uterus

Cervix

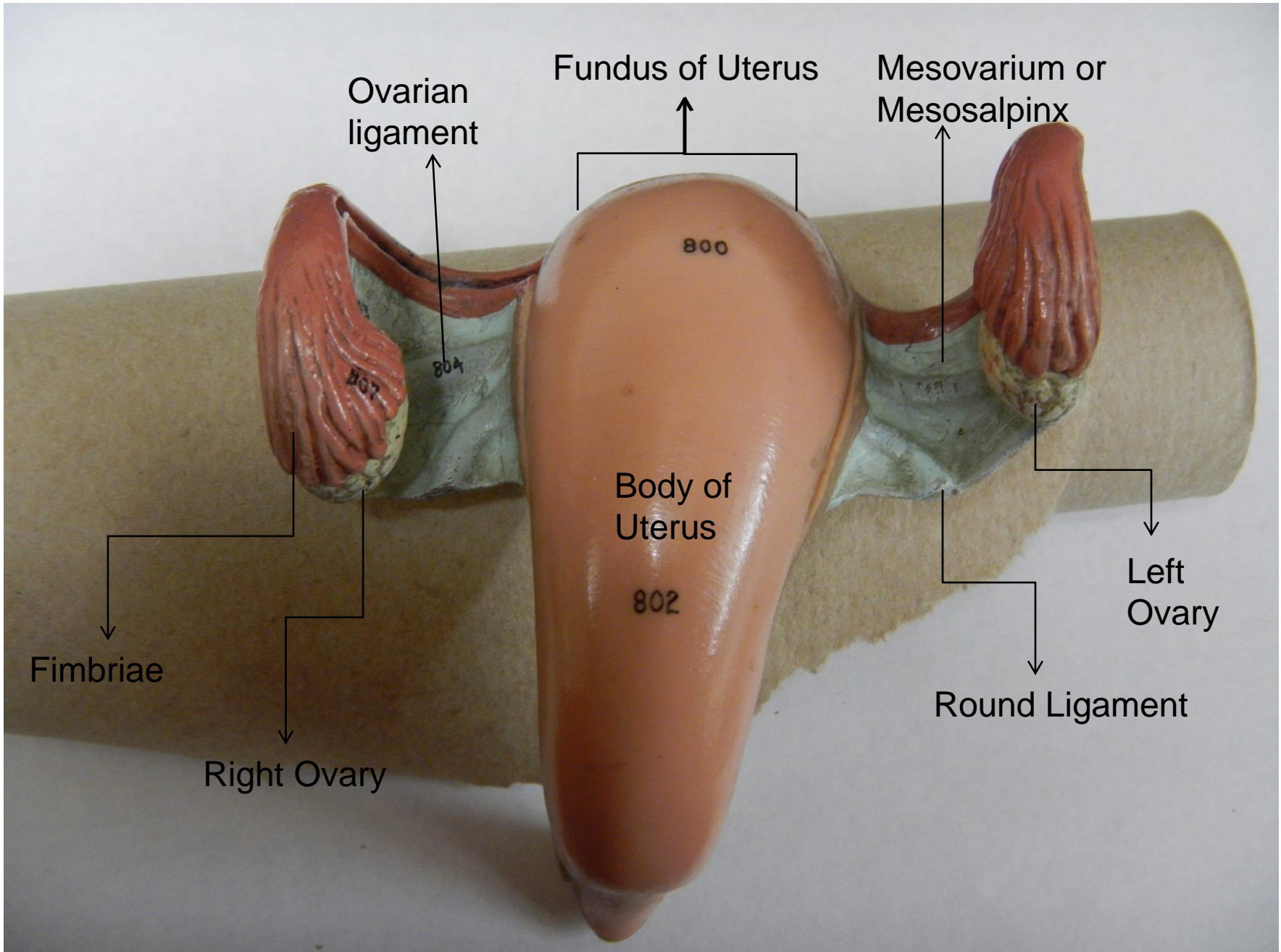
Vagina

Body of uterus

Fundus of uterus

Labia Minora

Labia Majora



Ovarian ligament

Fundus of Uterus

Mesovarium or Mesosalpinx

800

807

804

Body of Uterus

802

Left Ovary

Fimbriae

Right Ovary

Round Ligament

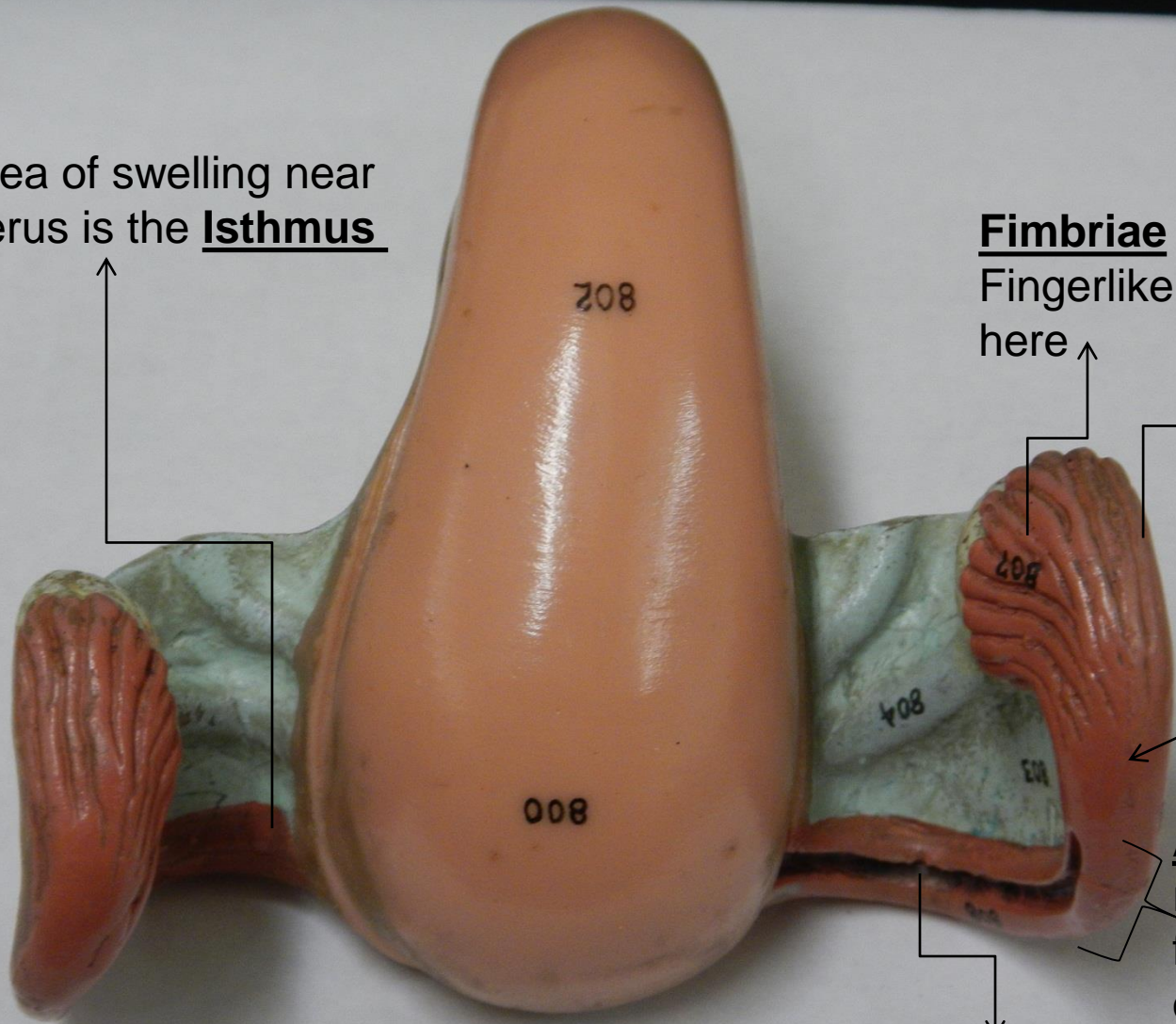
The area of swelling near the uterus is the **Isthmus**

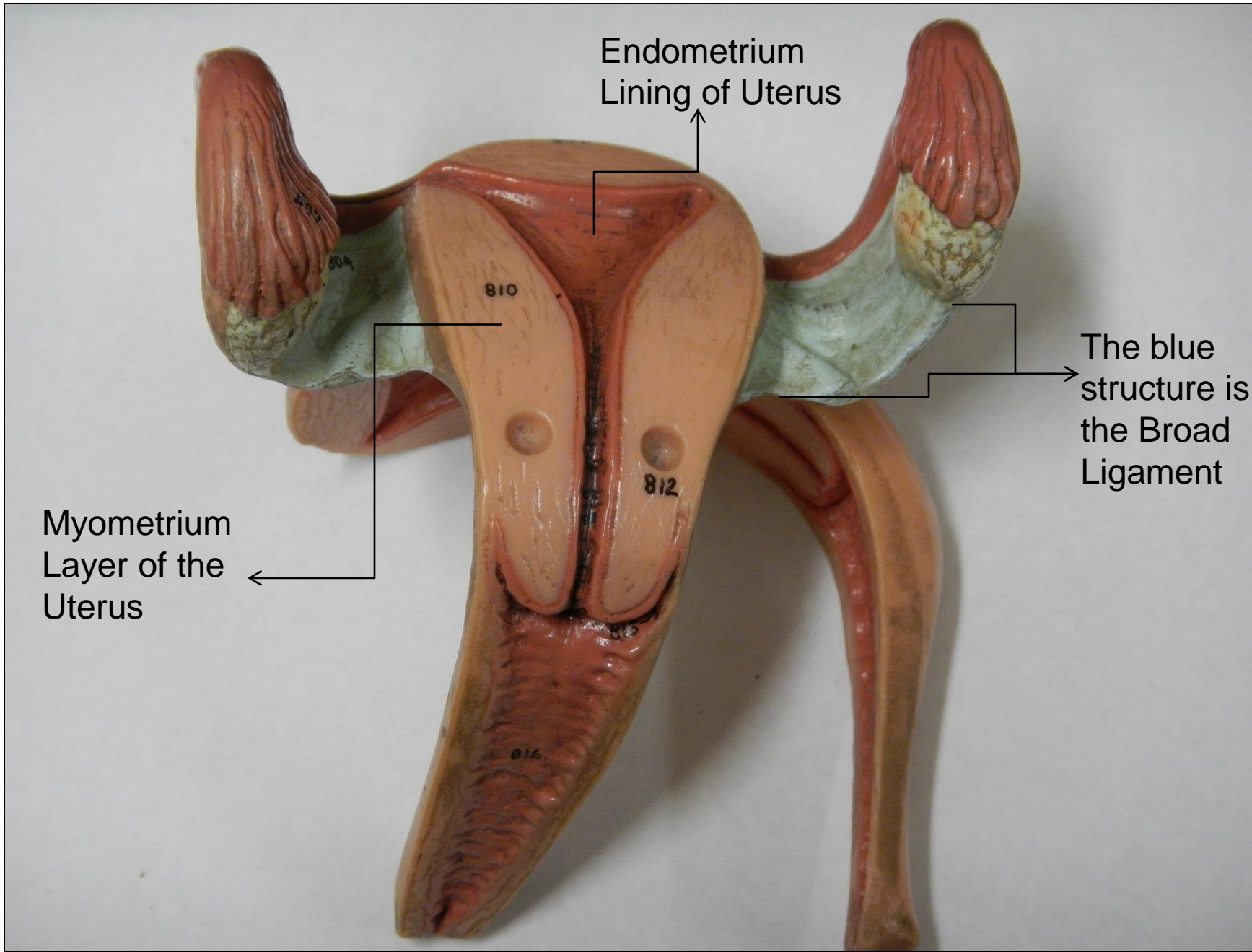
**Fimbriae** are the Fingerlike structures here

**Infundibulum**

**Ampulla** the region where fertilization occurs.

**Uterine Tube**





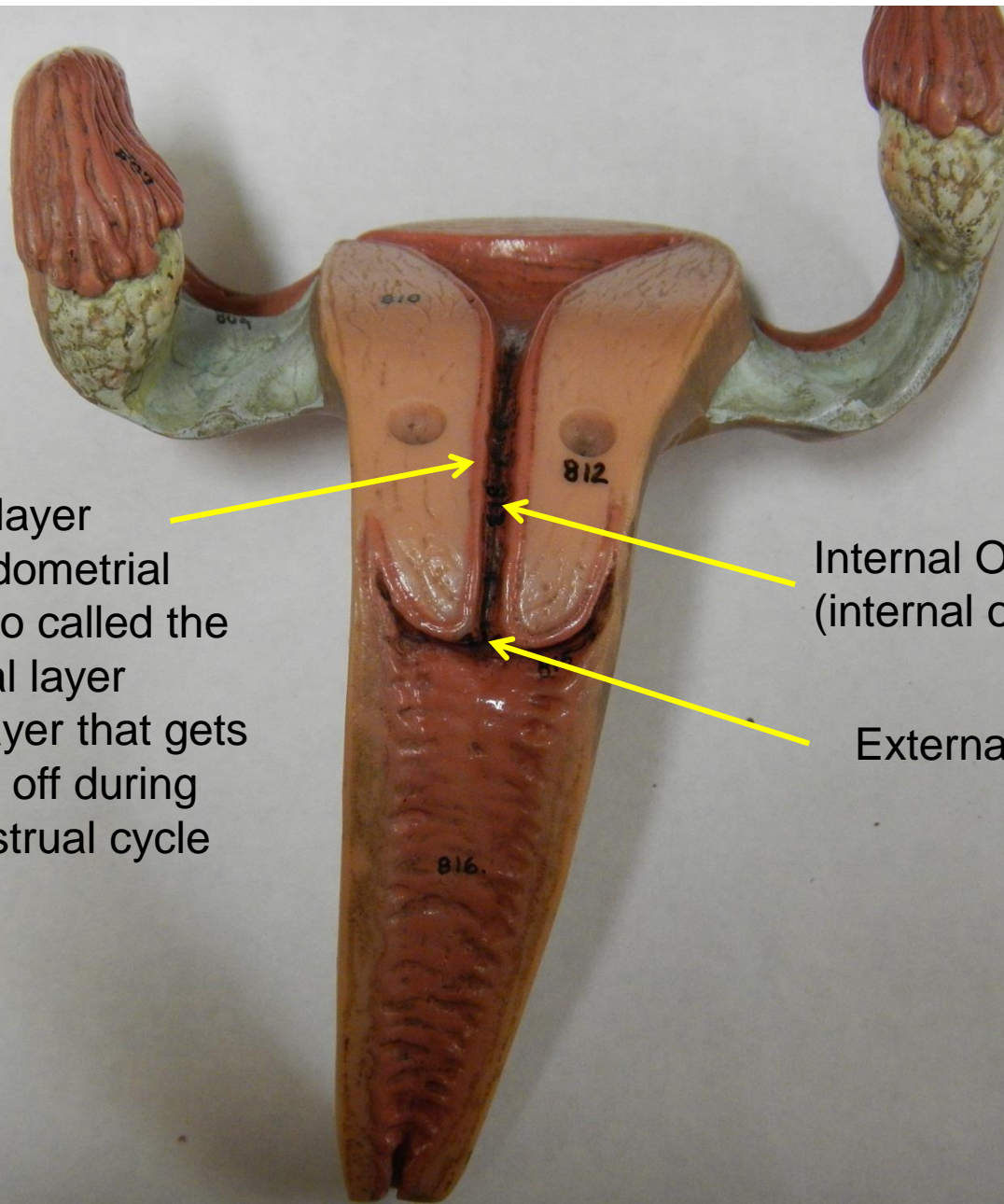
Endometrium  
Lining of Uterus

The blue  
structure is  
the Broad  
Ligament

Myometrium  
Layer of the  
Uterus

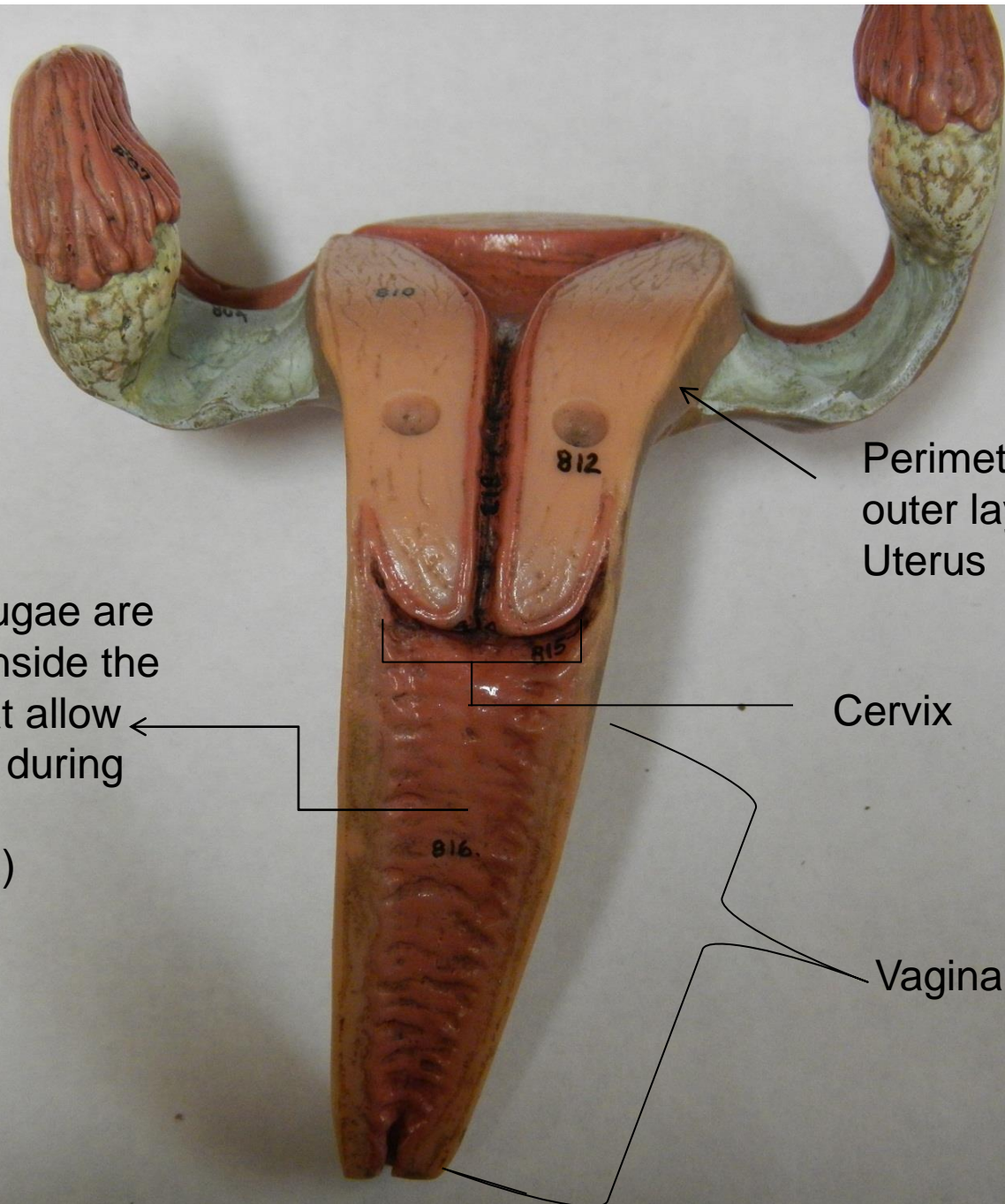


The pink layer  
Is the Endometrial  
Lining also called the  
Functional layer  
It is the layer that gets  
Sloughed off during  
The menstrual cycle



Internal OS  
(internal orifice)

External OS



Perimetrium or  
outer layer of the  
Uterus

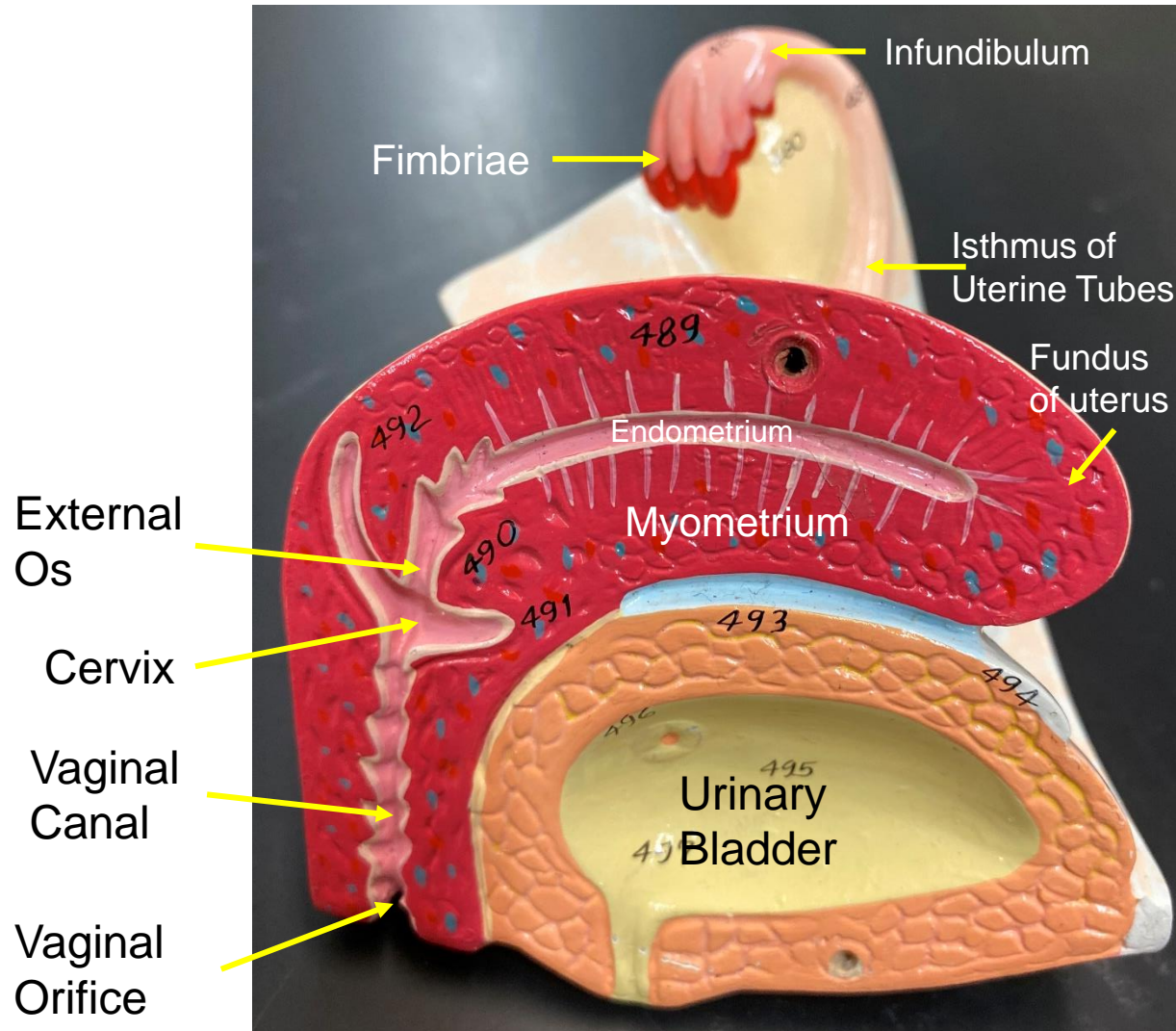
Vaginal Rugae are  
the folds inside the  
vagina that allow  
for stretch during  
parturition  
(child birth)

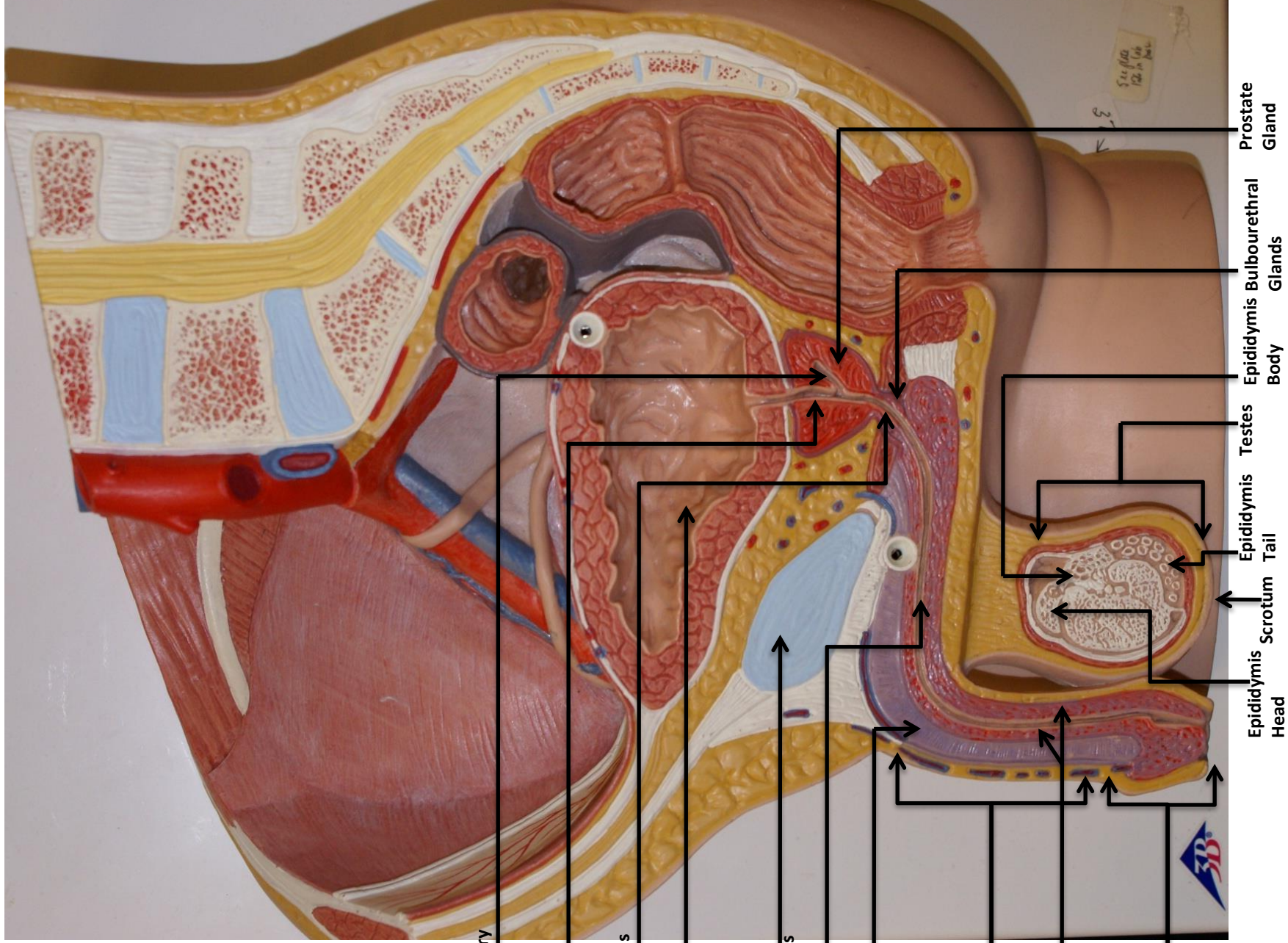
Cervix

Vagina

# Female Reproductive System

## Internal Organs





Ejaculatory Duct

Prostatic urethra

Membranous urethra

Urinary bladder

Pubic Symphysis

Spongy urethra

Corpora cavernosa

Penis body

Corpus spongiosum

Glans penis

Prostate Gland

Epididymis Bulbourethral Glands

Body

Testes

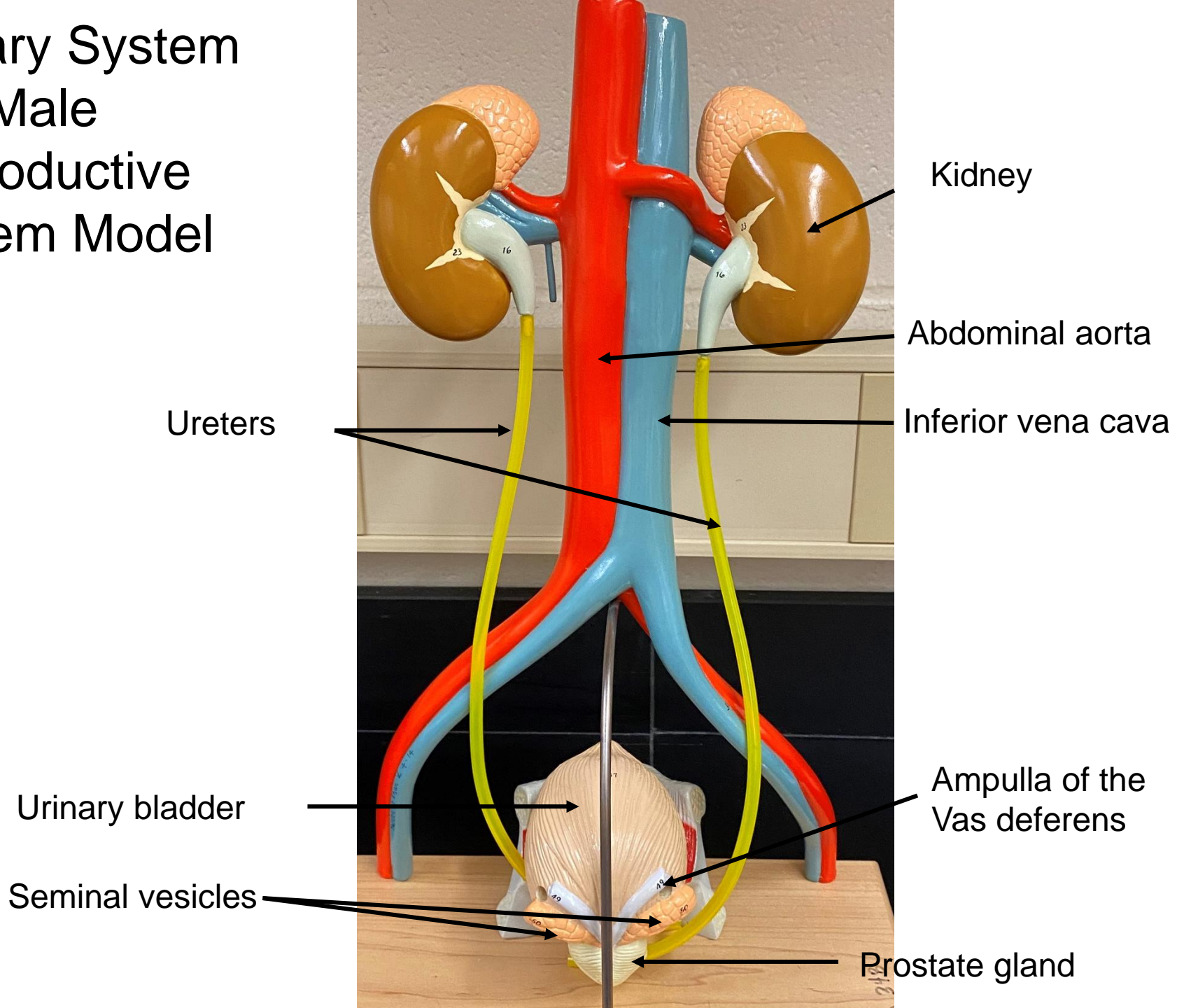
Epididymis Tail

Scrotum

Epididymis Head



# Urinary System and Male Reproductive System Model



# Urinary System and Male Reproductive System Model

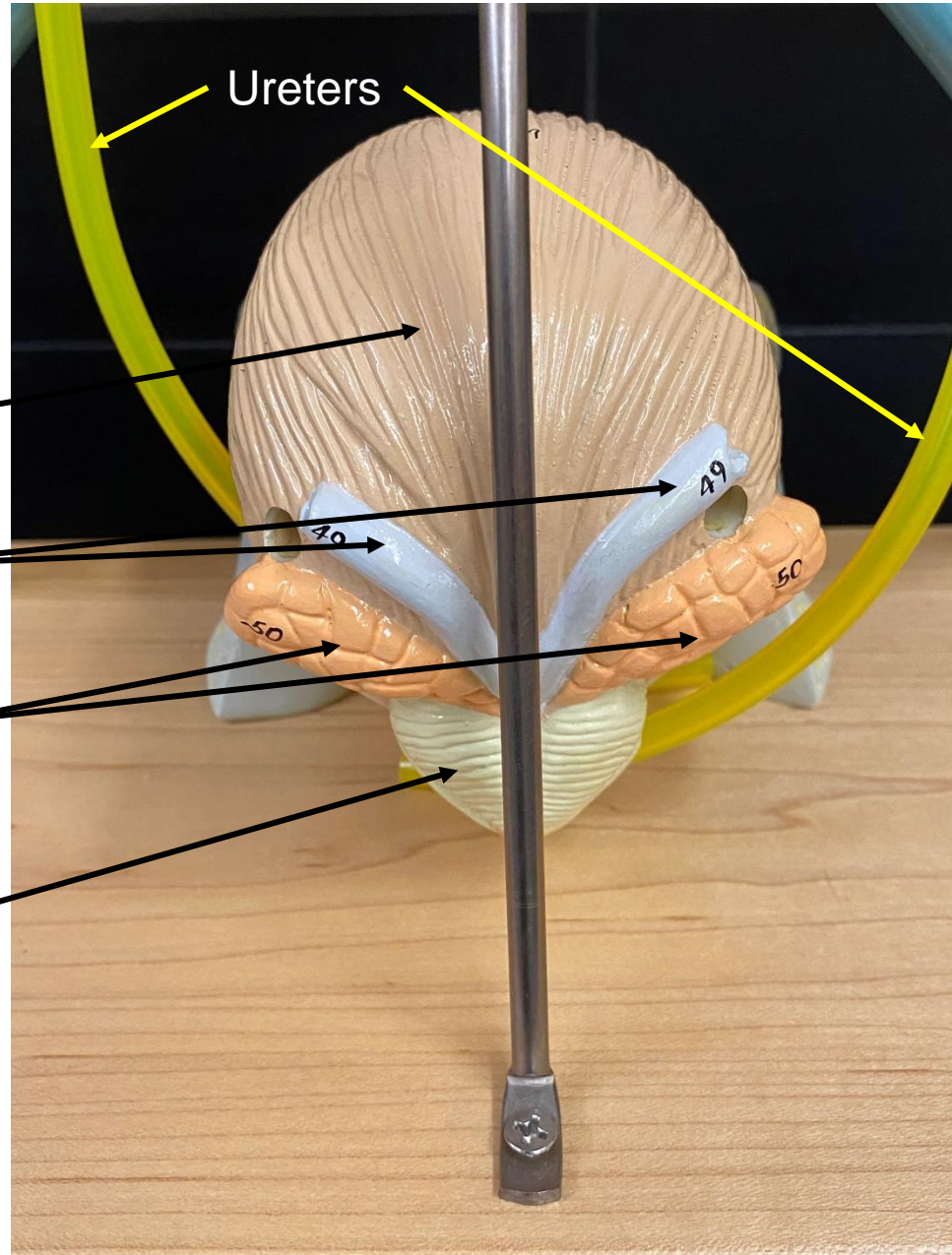
Urinary bladder

Ampulla of the Vas deferens

Seminal vesicles

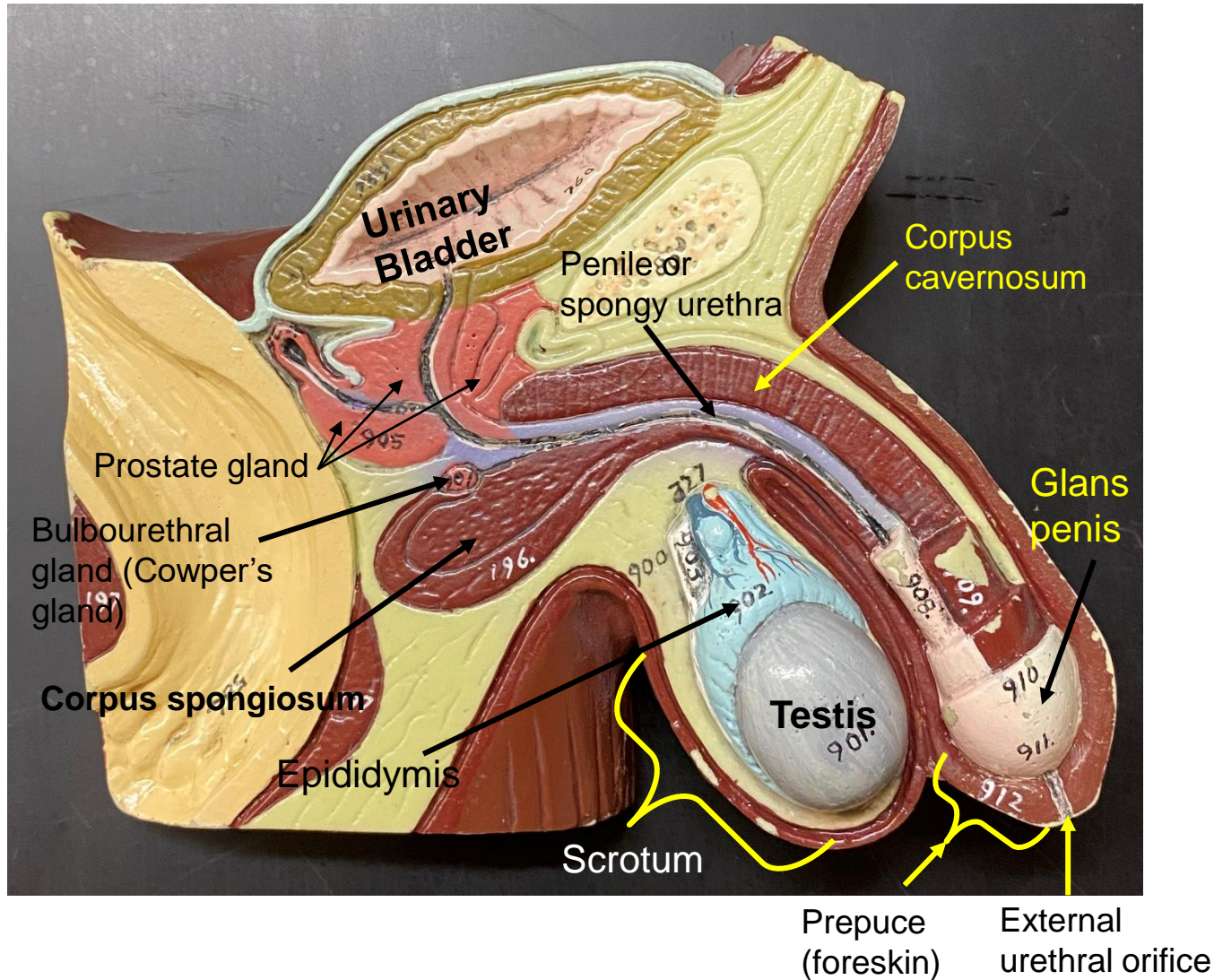
Prostate gland

Ureters



# Male Reproductive System

## External and Internal Structures



# Male Reproductive System Ducts and Urethra

