

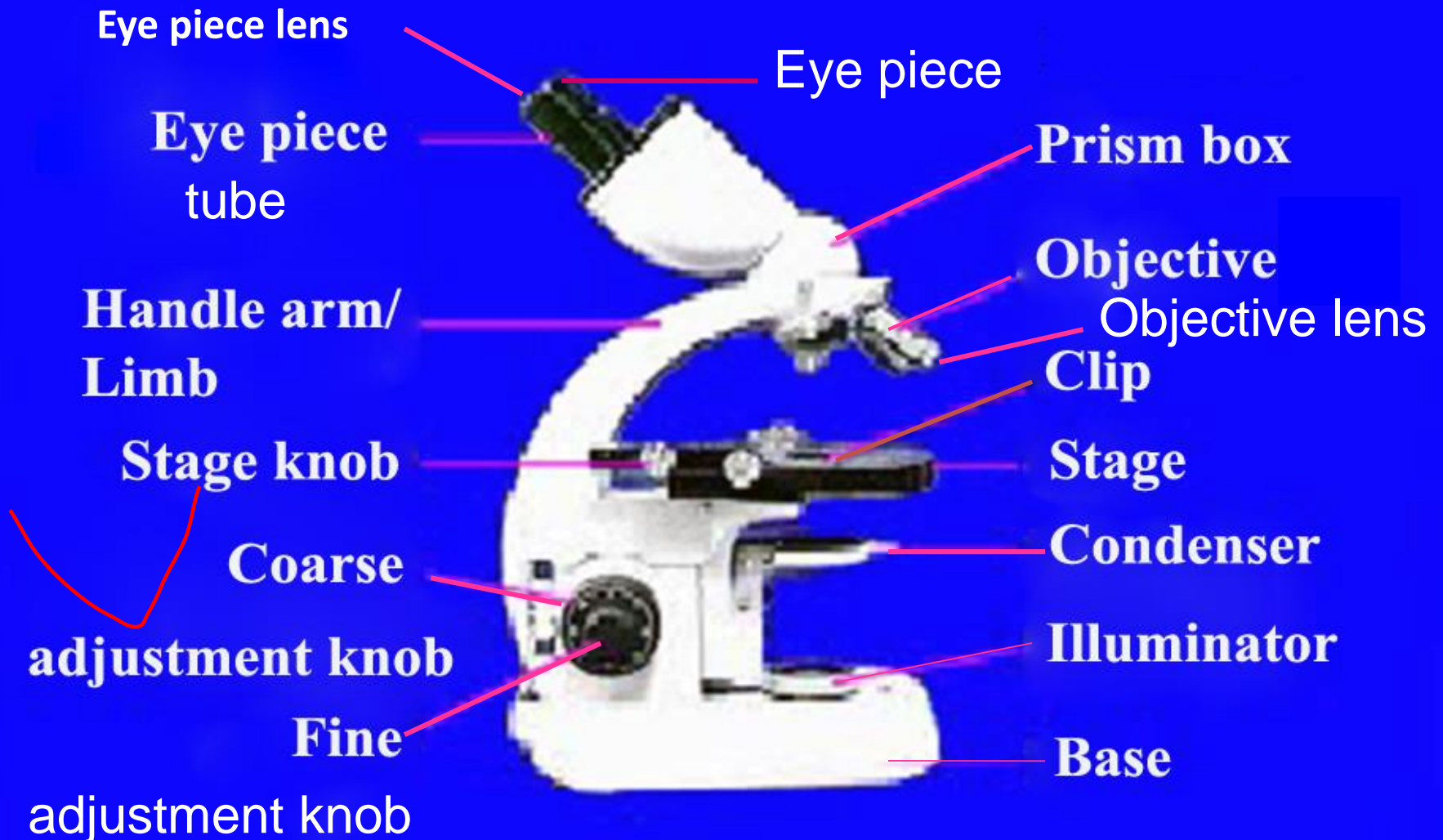
University of Medicine, Magway

Department of Zoology

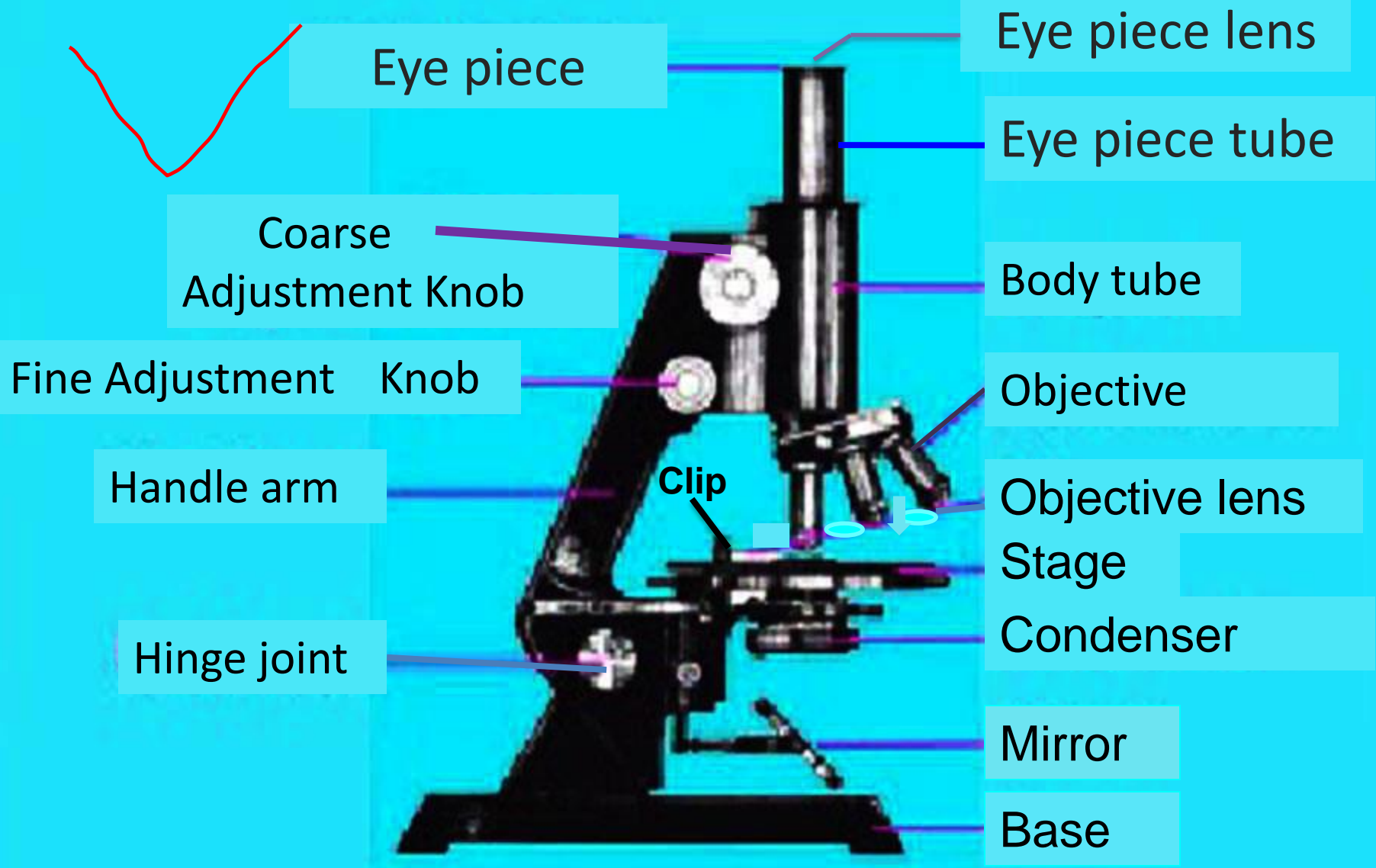
Daw San San Myint

Lecturer & Head

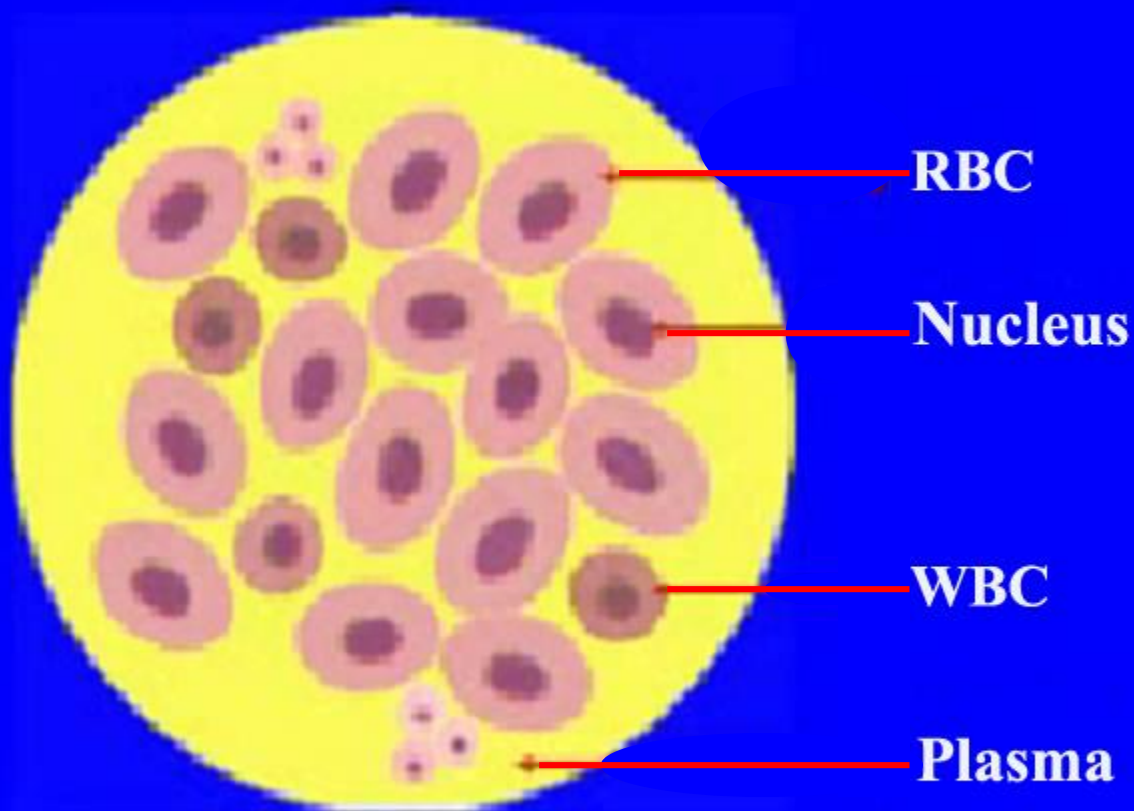
# A Compound Light Microscope



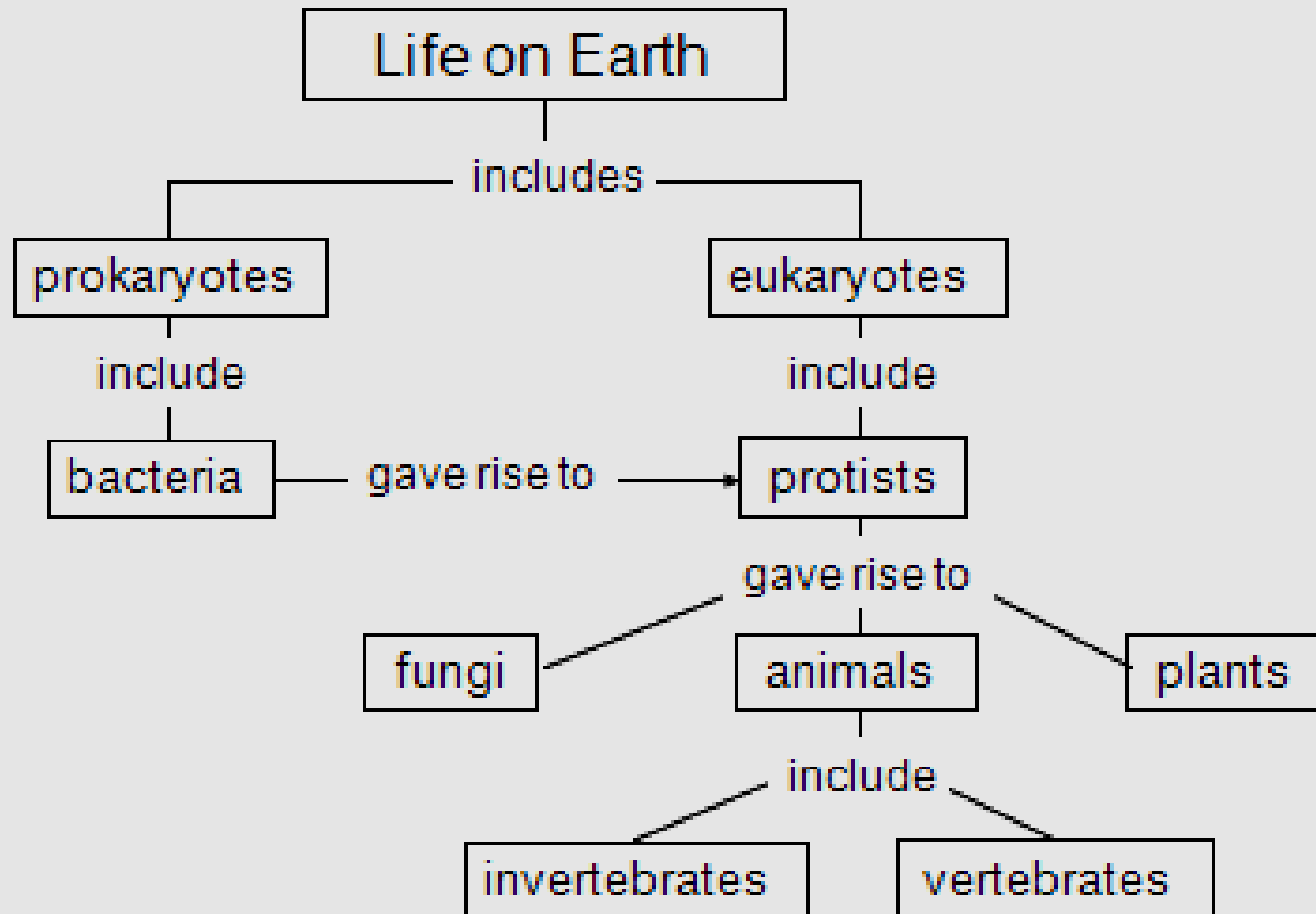
# A Compound Light Microscope

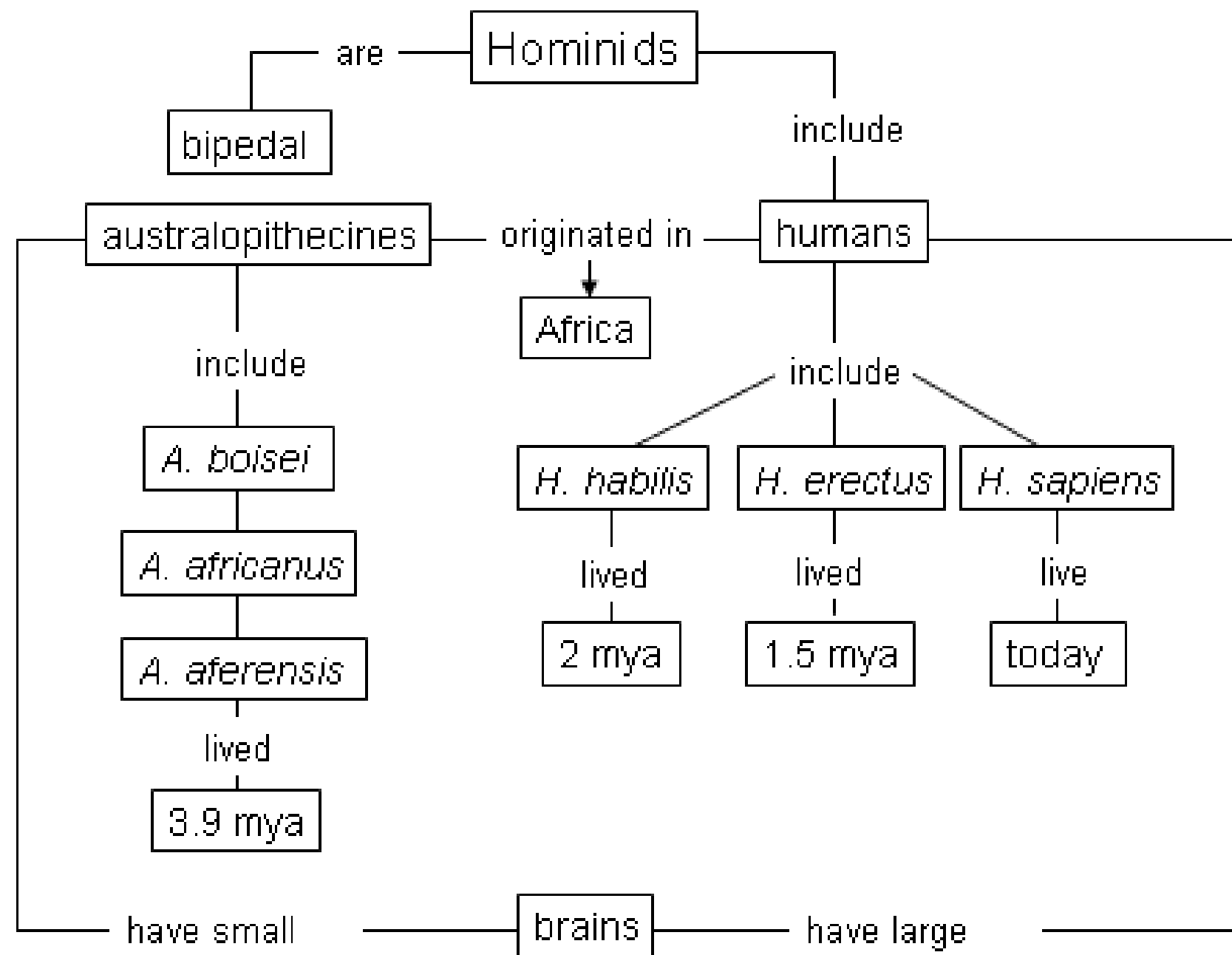


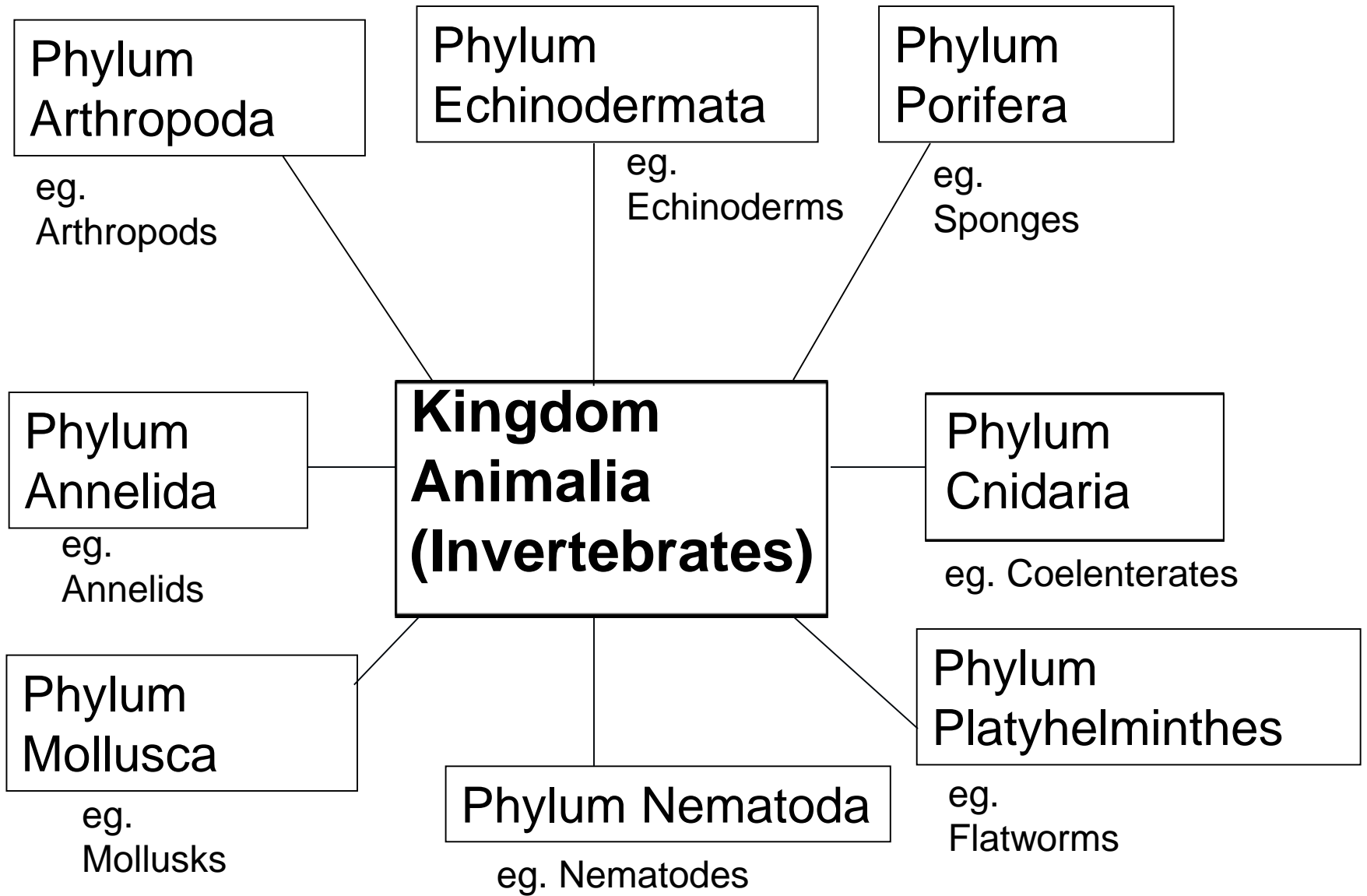
## Frog Blood



High power magnification - 40X

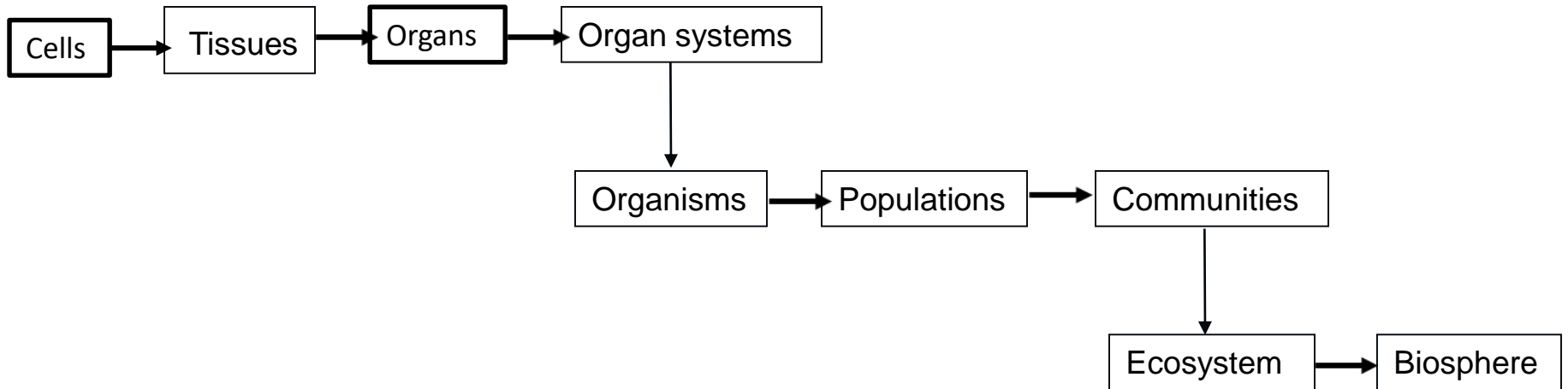






# Kingdom Animalia (Invertebrates)

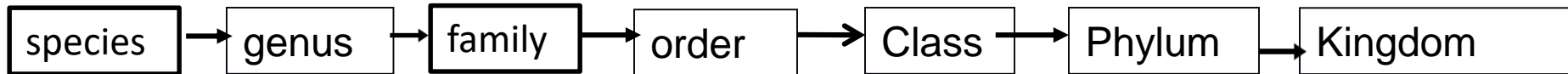
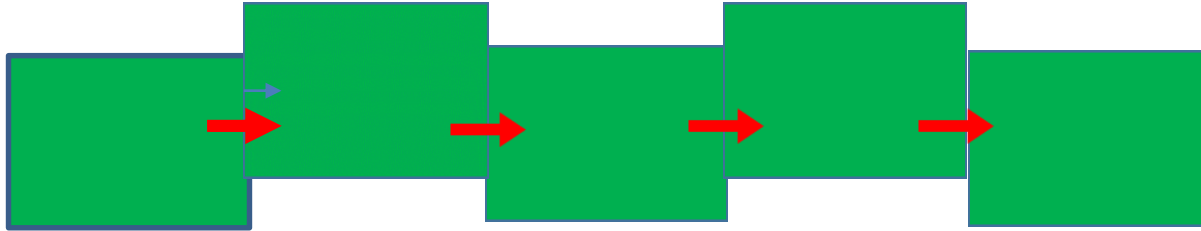
# Flow concept map



Levels of organization

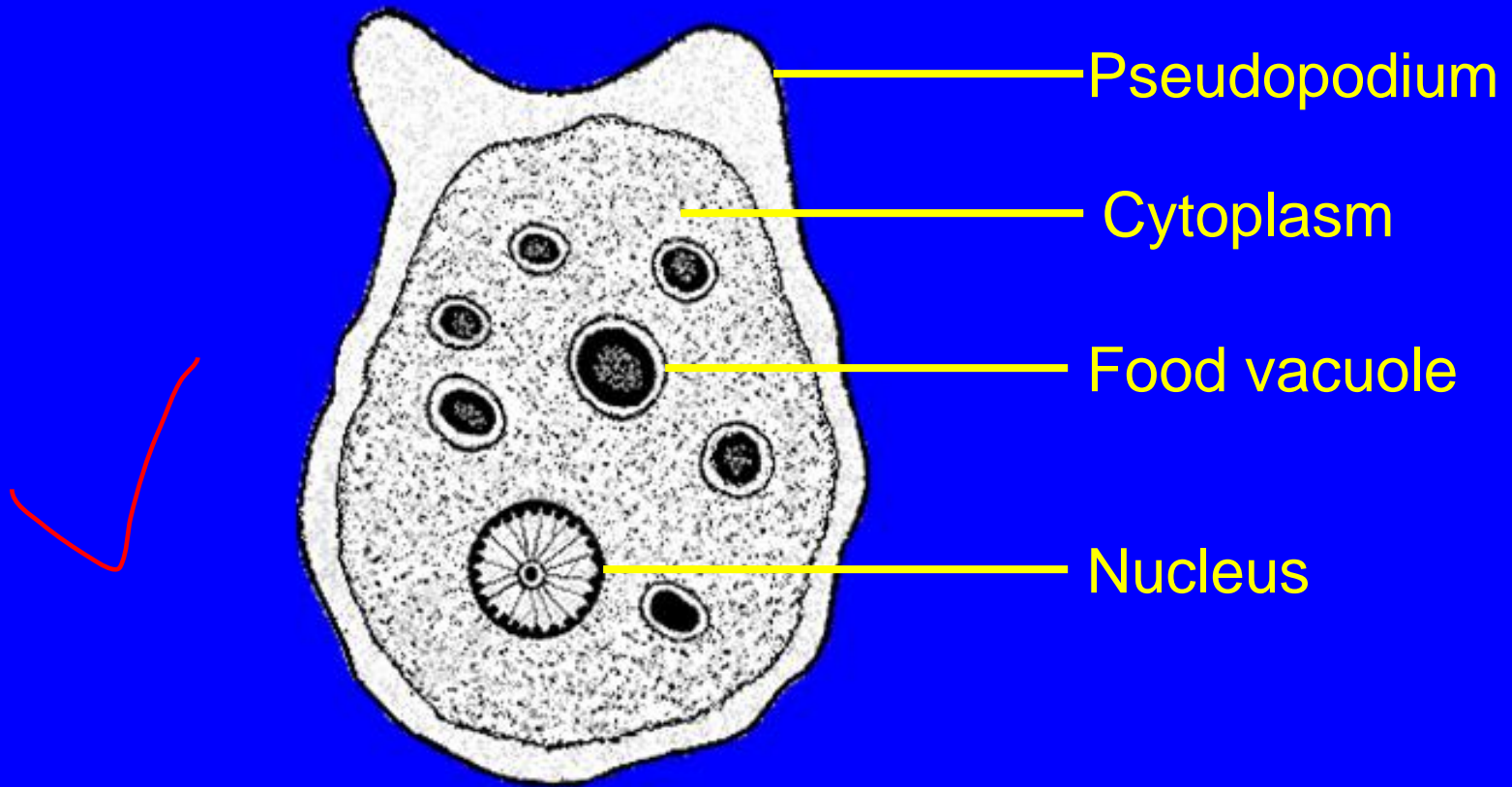


Flow concept  
map

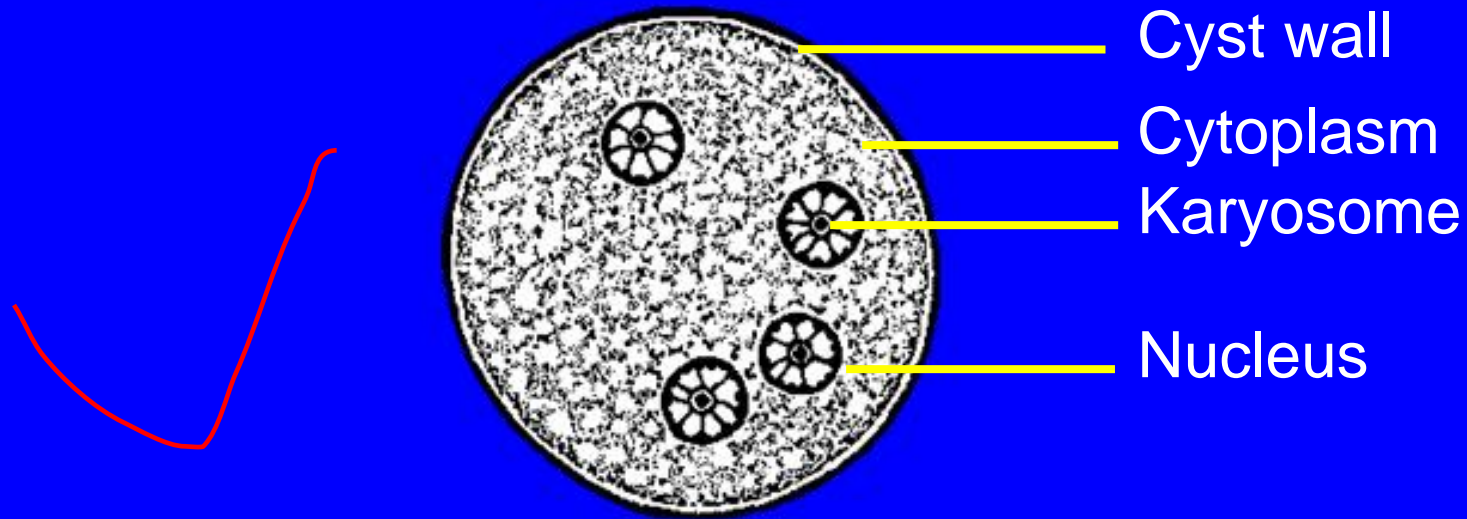


7 major categories

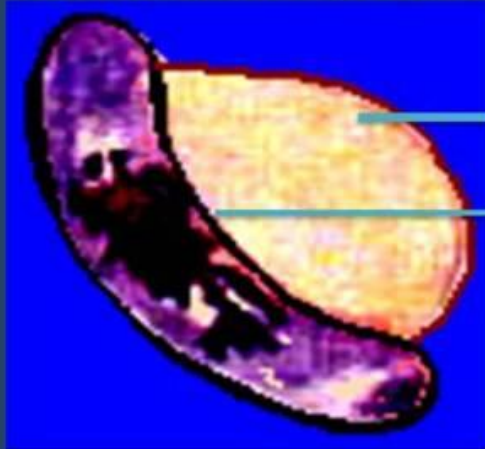
# *Entamoeba histolytica* ( trophozoite stage)



# *Entamoeba histolytica* (mature cyst)



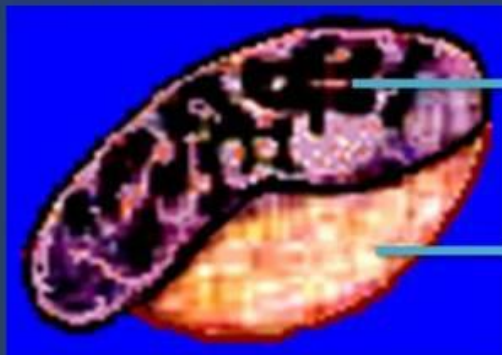
## *Plasmodium falciparum*



Red blood cell

Nucleus

Female gametocyte

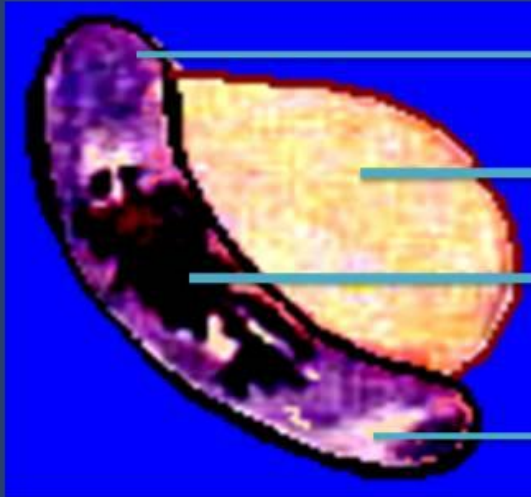


Nucleus

Red blood cell

Male gametocyte

## Female gametocyte of *Plasmodium falciparum*



Gametocyte

Red blood cell

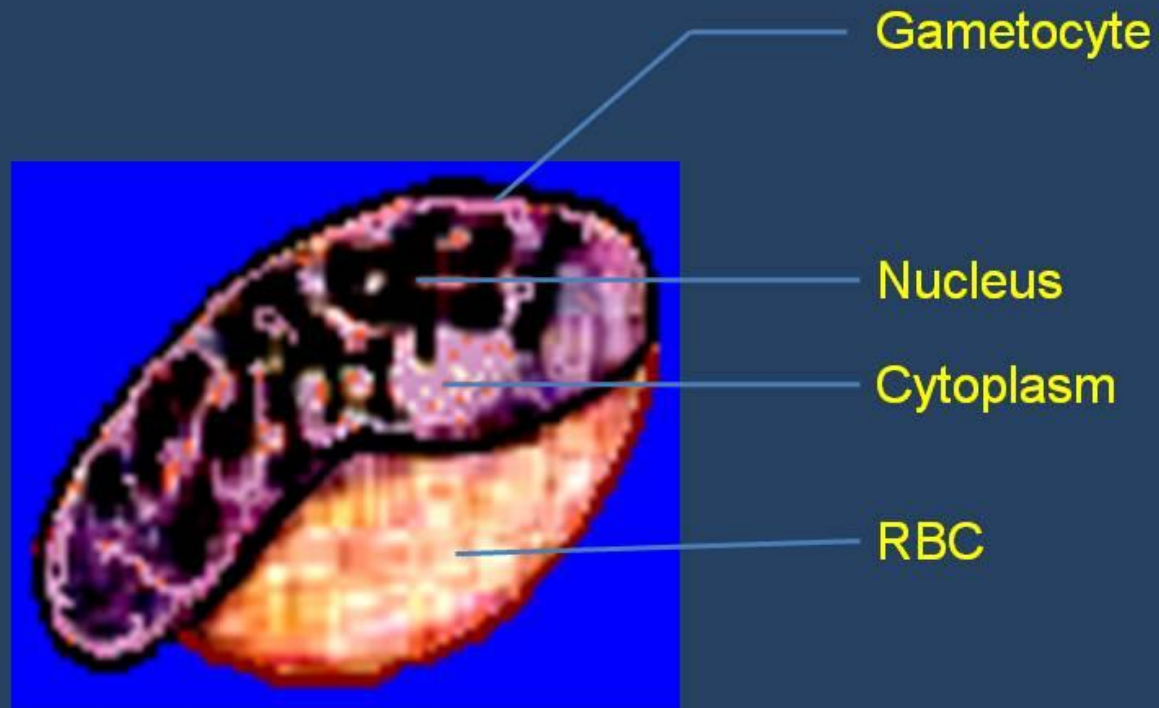
Nucleus

Cytoplasm

Macrogametocyte

Function - For sexual reproduction.

## Male gametocyte of *Plasmodium falciparum*

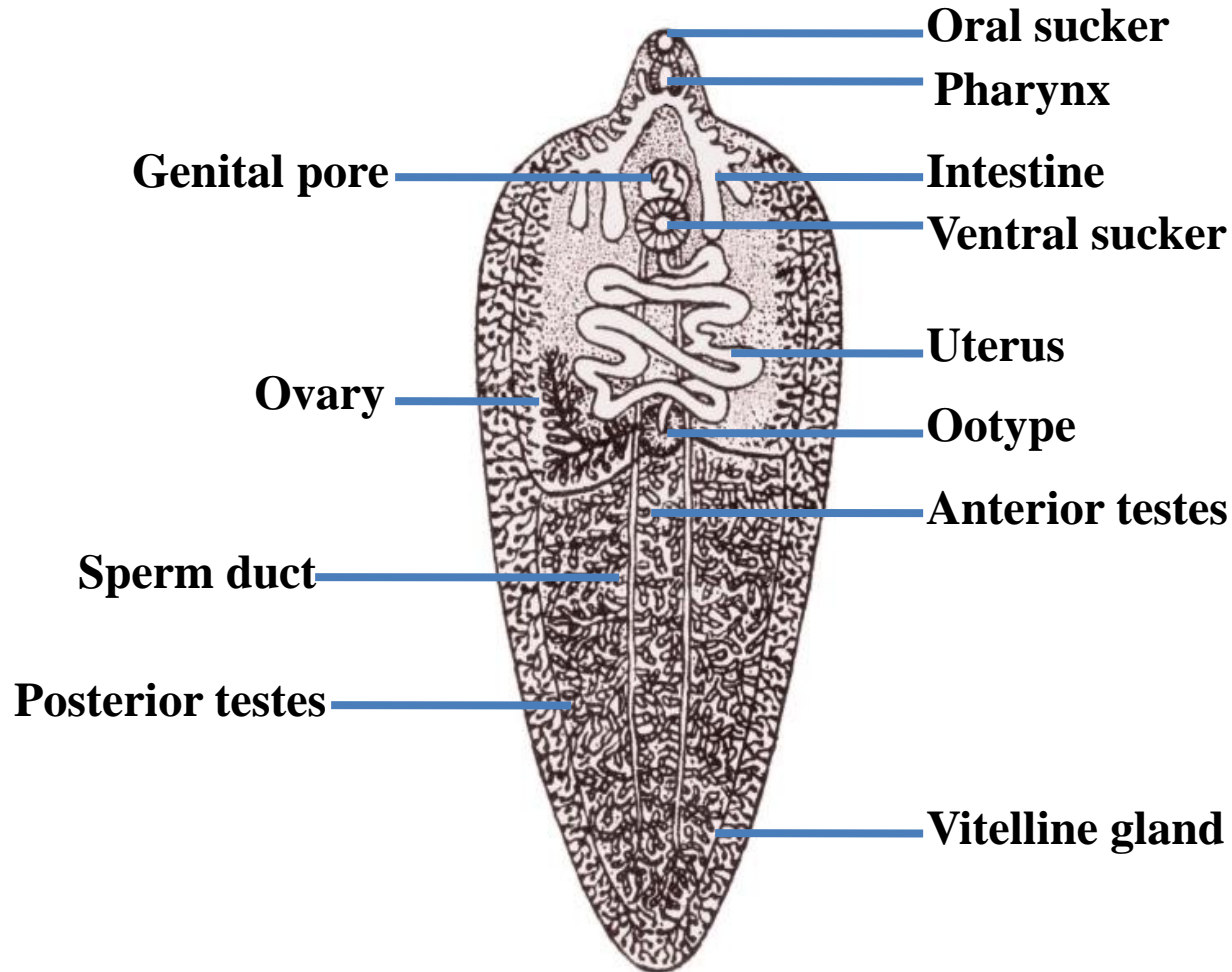


**Microgametocyte**

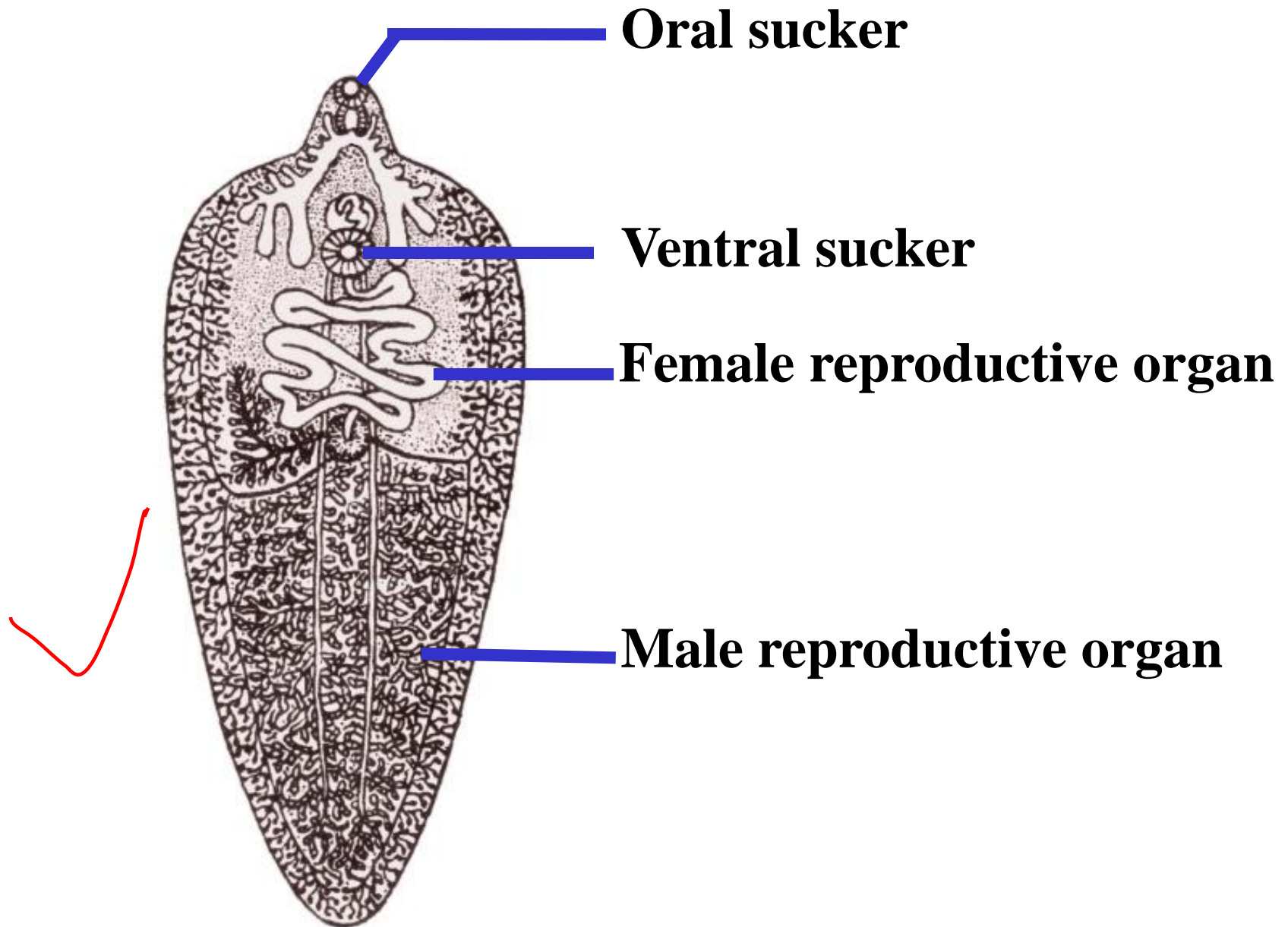
Male gametocyte



# *Fasciola hepatica* ( liver fluke )

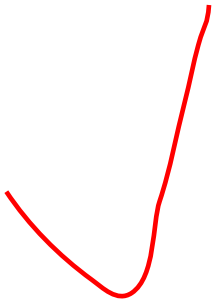
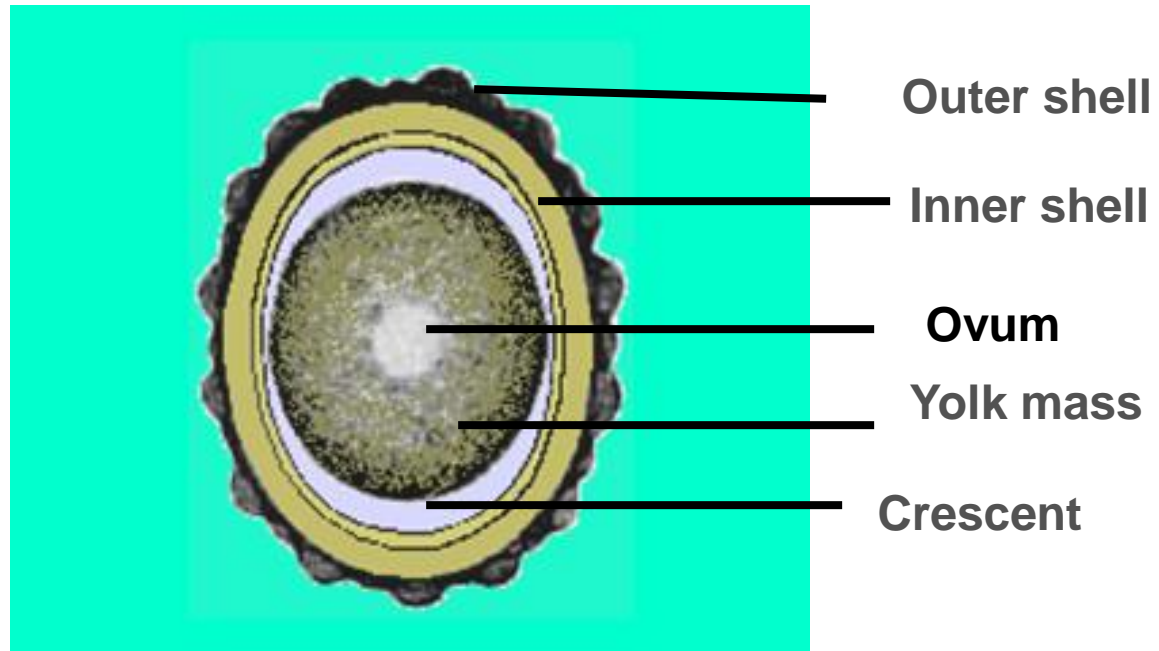


# *Fasciola hepatica* ( liver fluke )

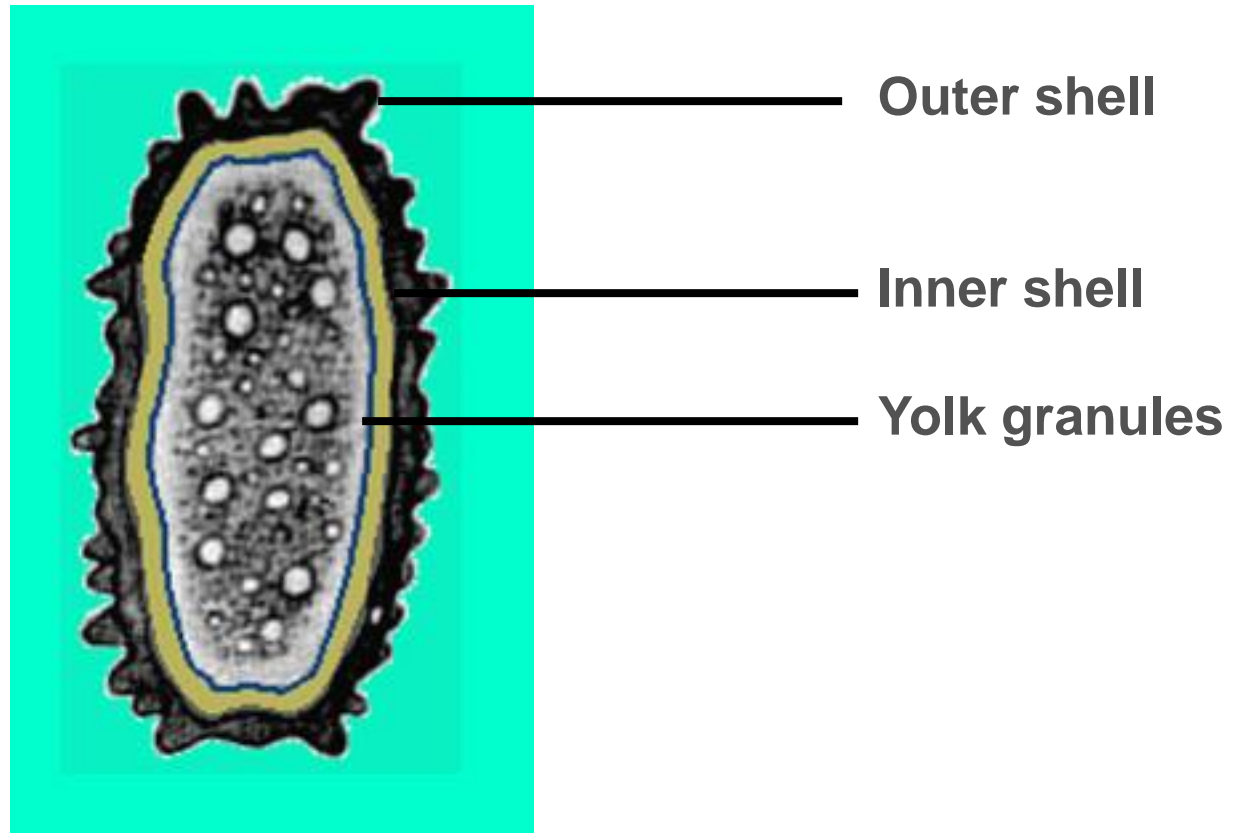
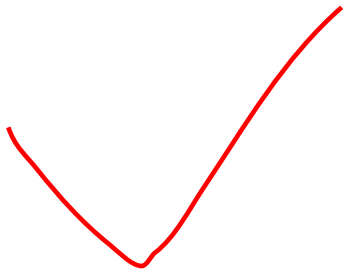




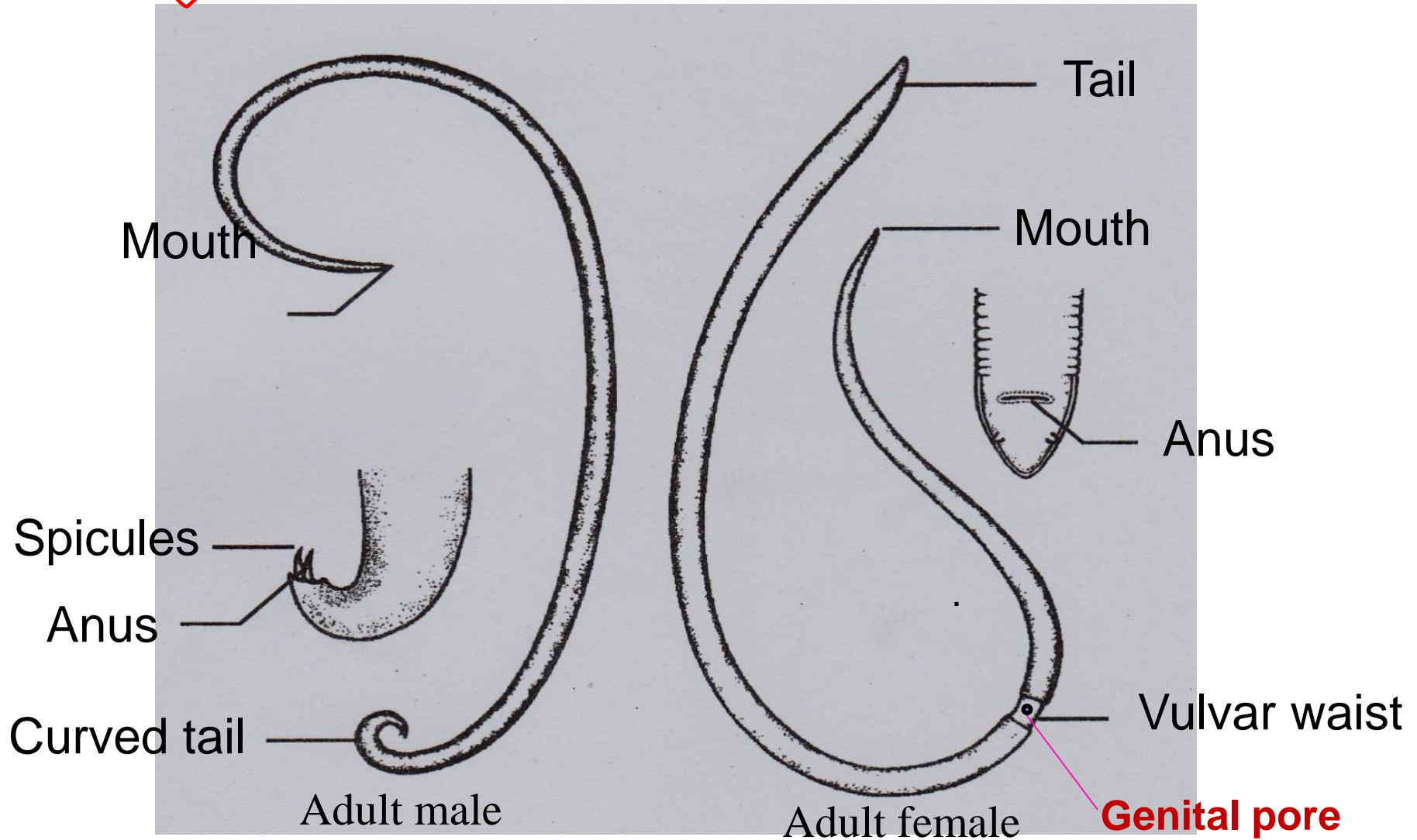
## ***Ascaris lumbricoides* ( fertilized egg)**



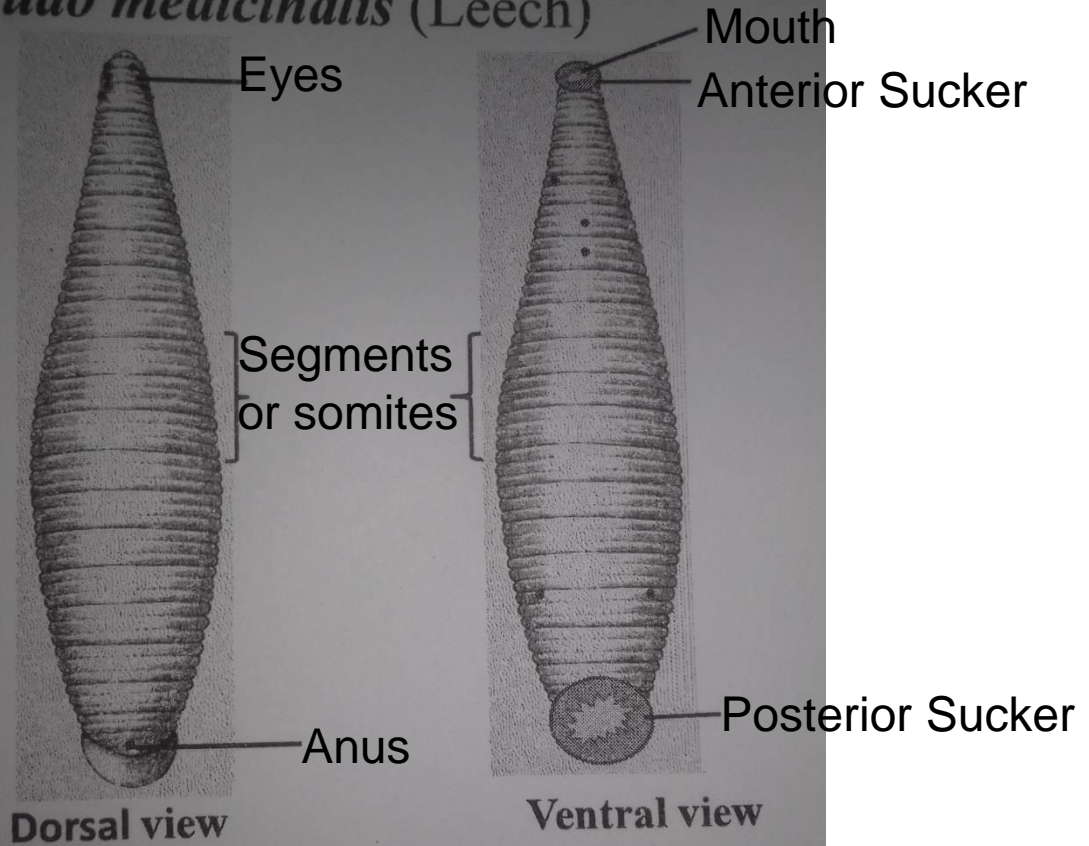
## ***Ascaris lumbricoides* (unfertilized egg)**



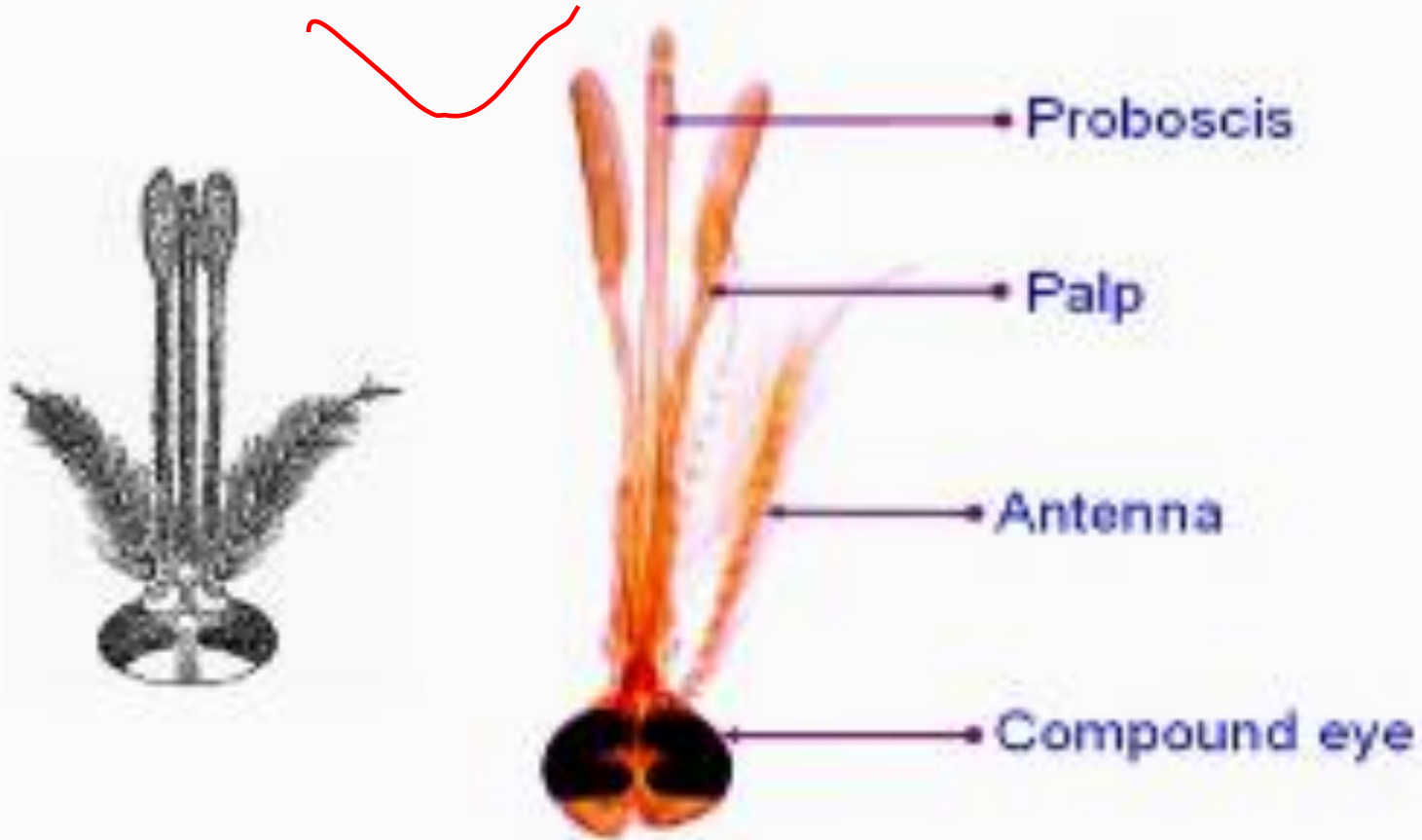
# Ascaris lumbricoides



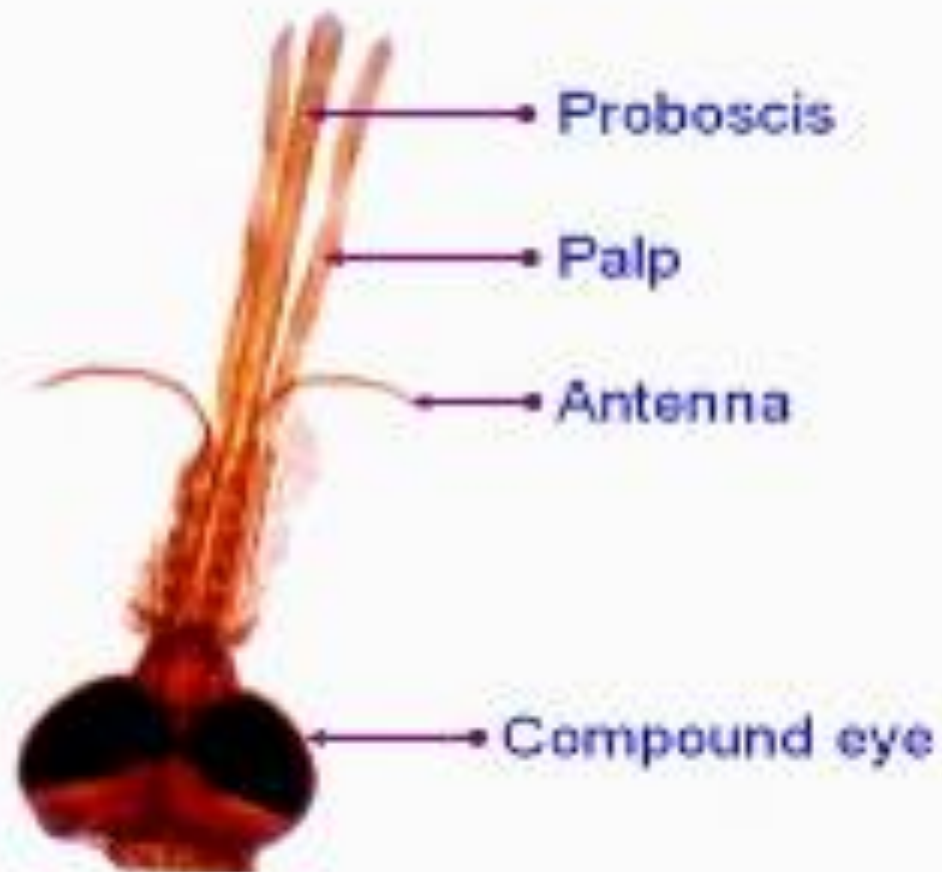
*Hirudo medicinalis* (Leech)



# *Anopheles* male head

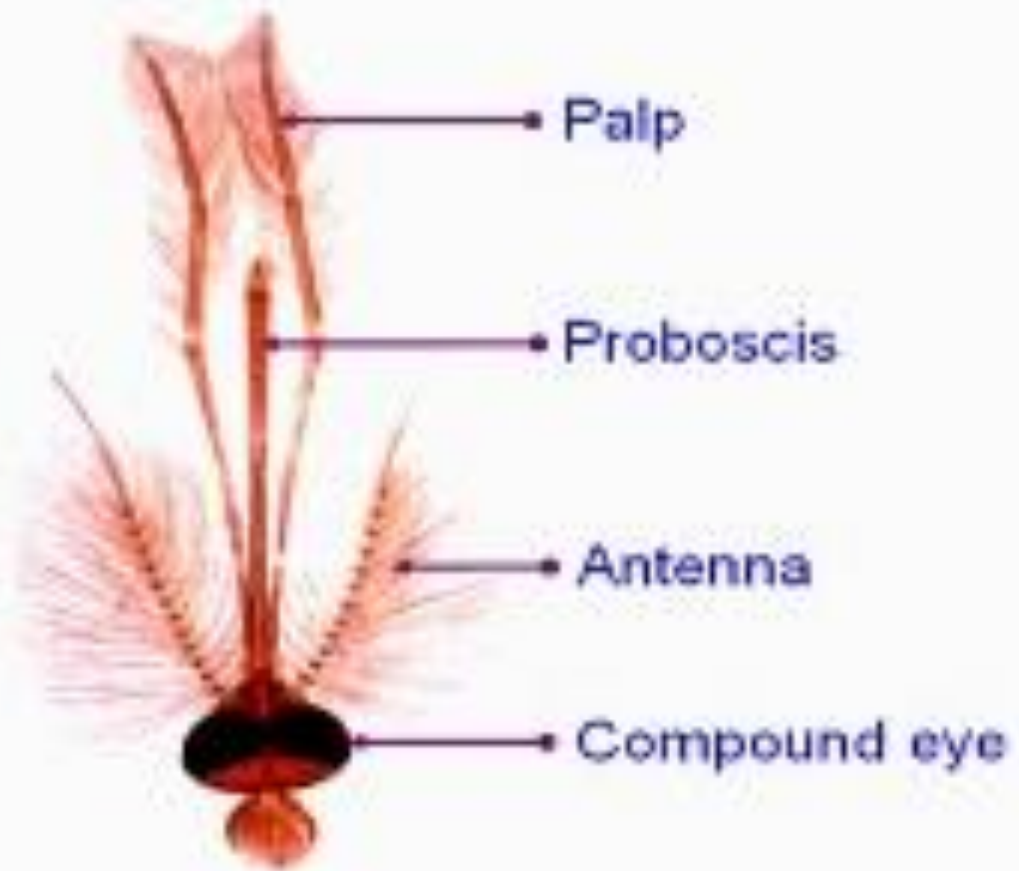


# *Anopheles* female head

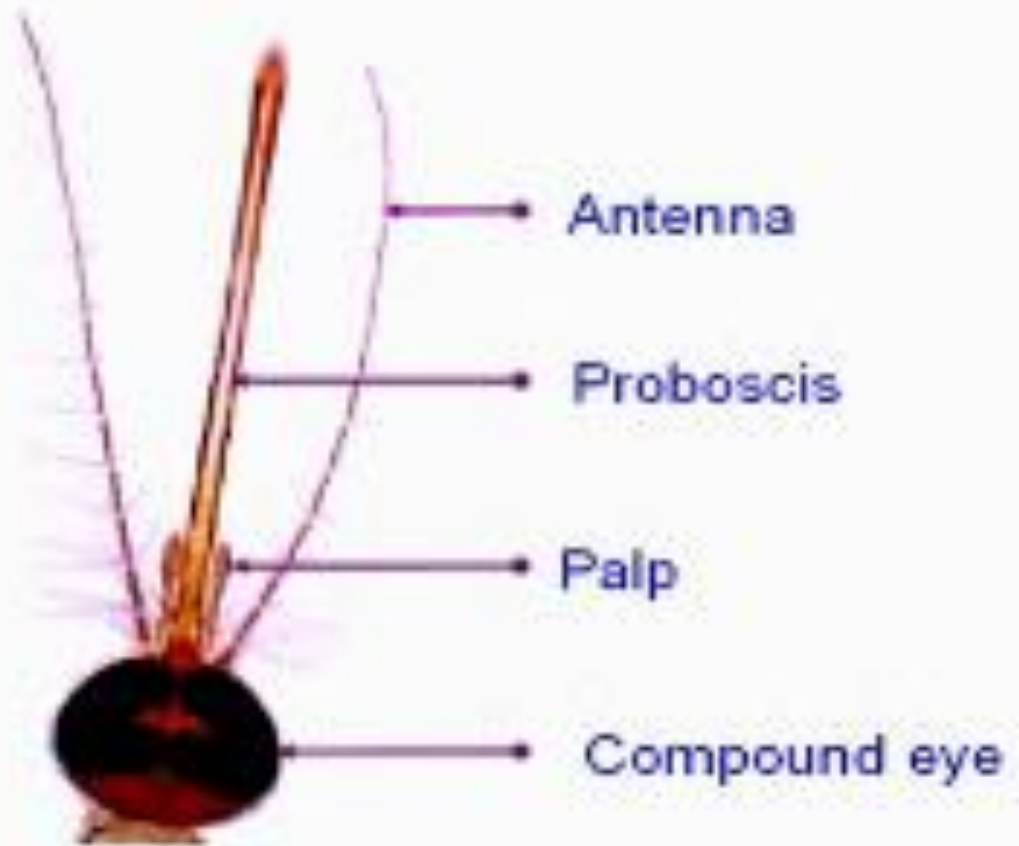




## *Culex* male head

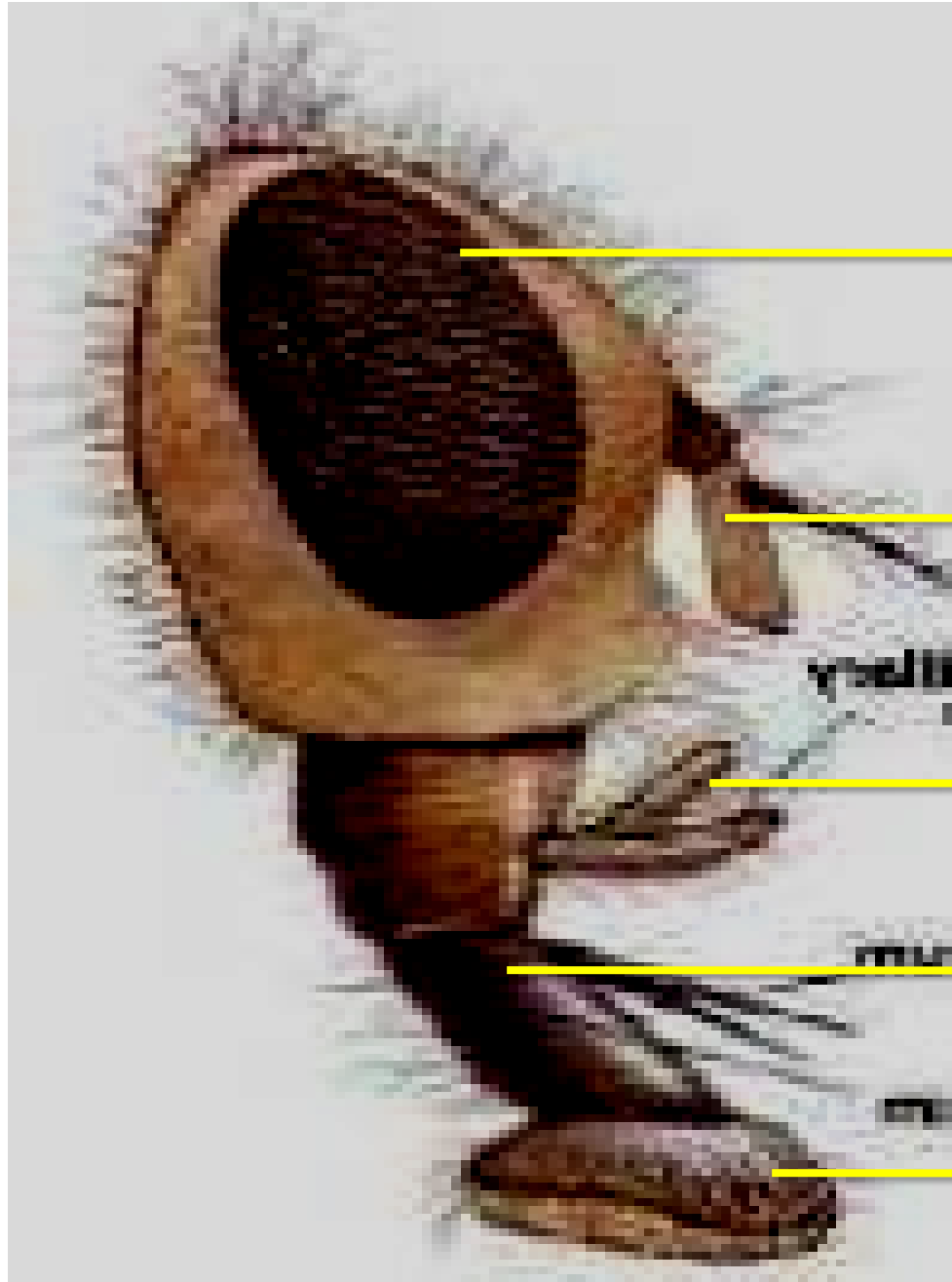


## *Culex* female head





# House fly mouth parts



Compound eye

Antenna

Maxillary palp

Proboscis

Labella

# Hydrophis (Sea snake)

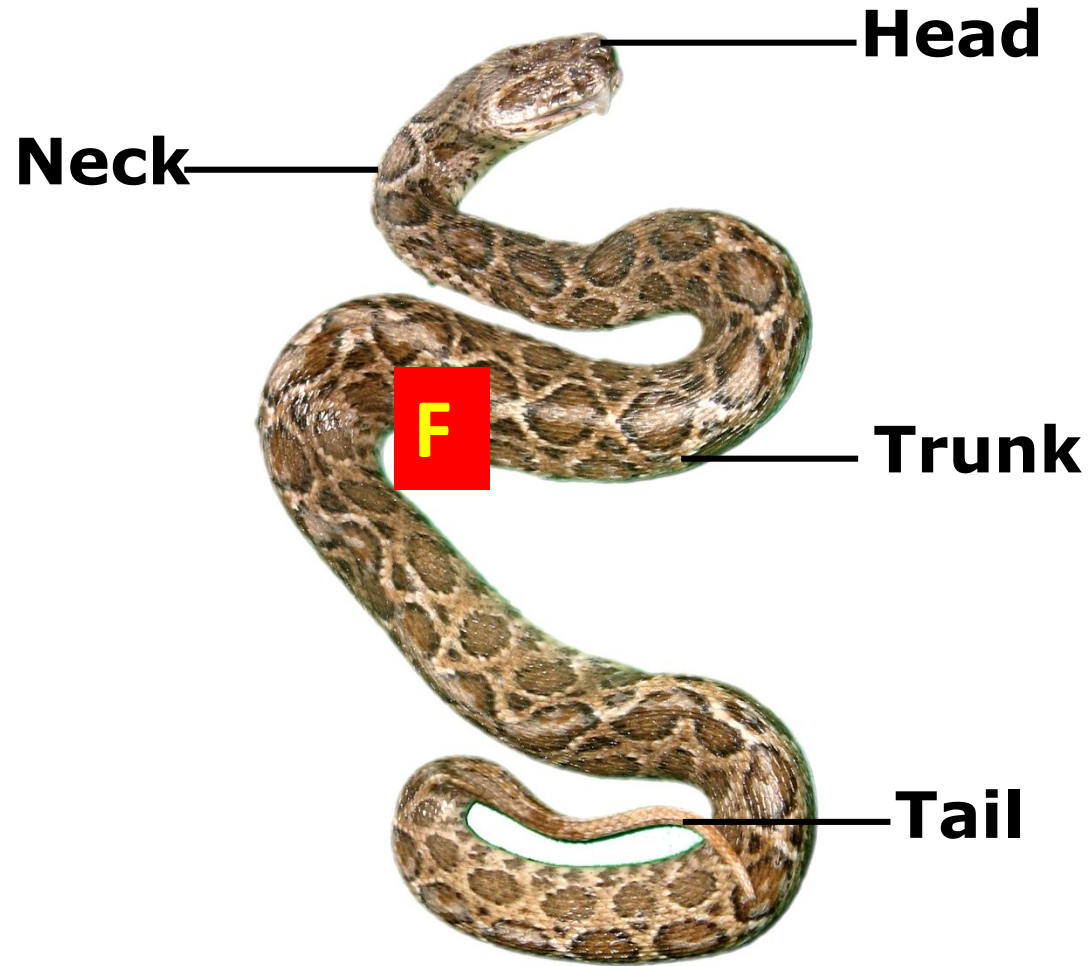
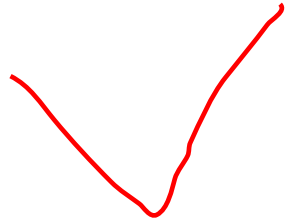


Band

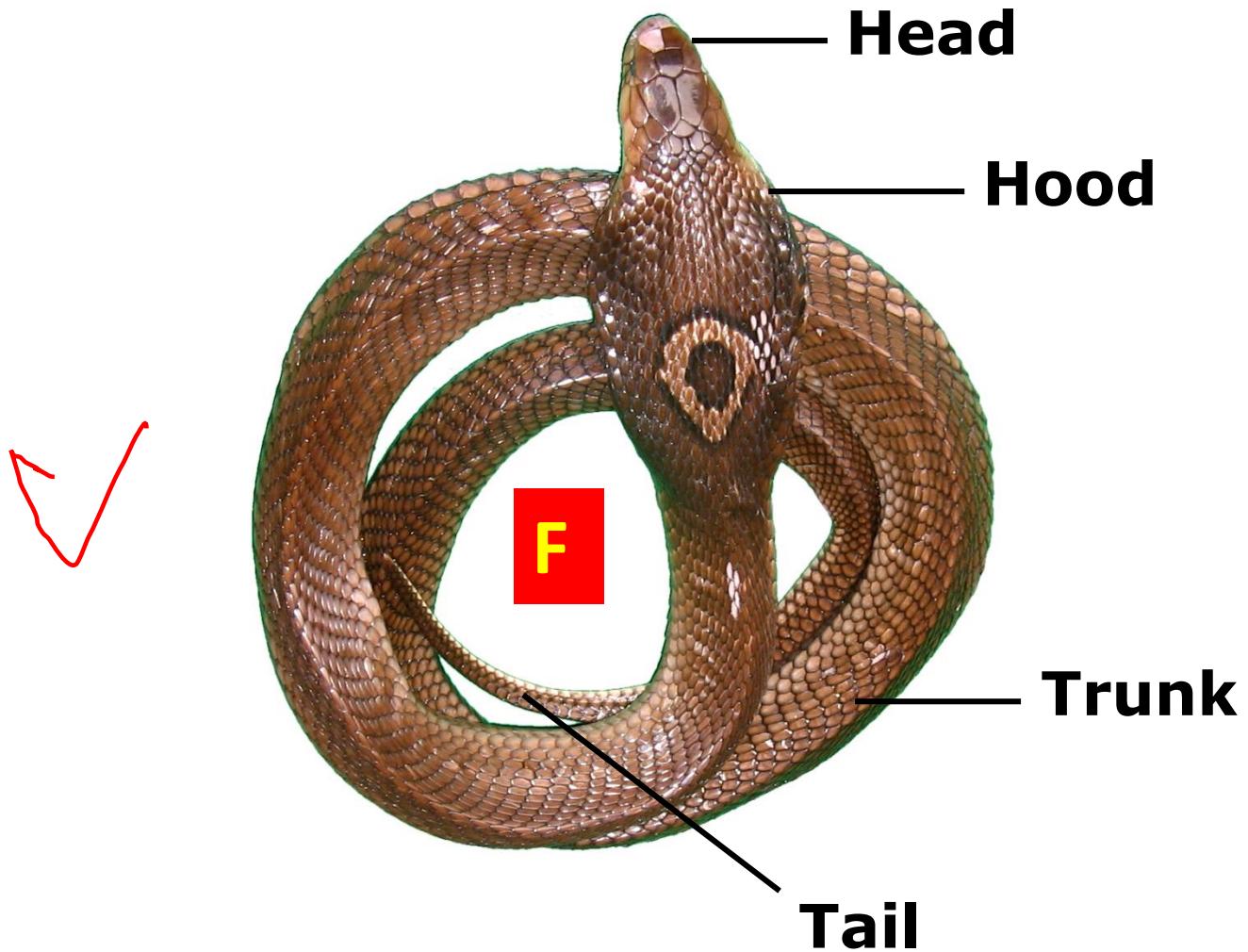
Head

Flat tail

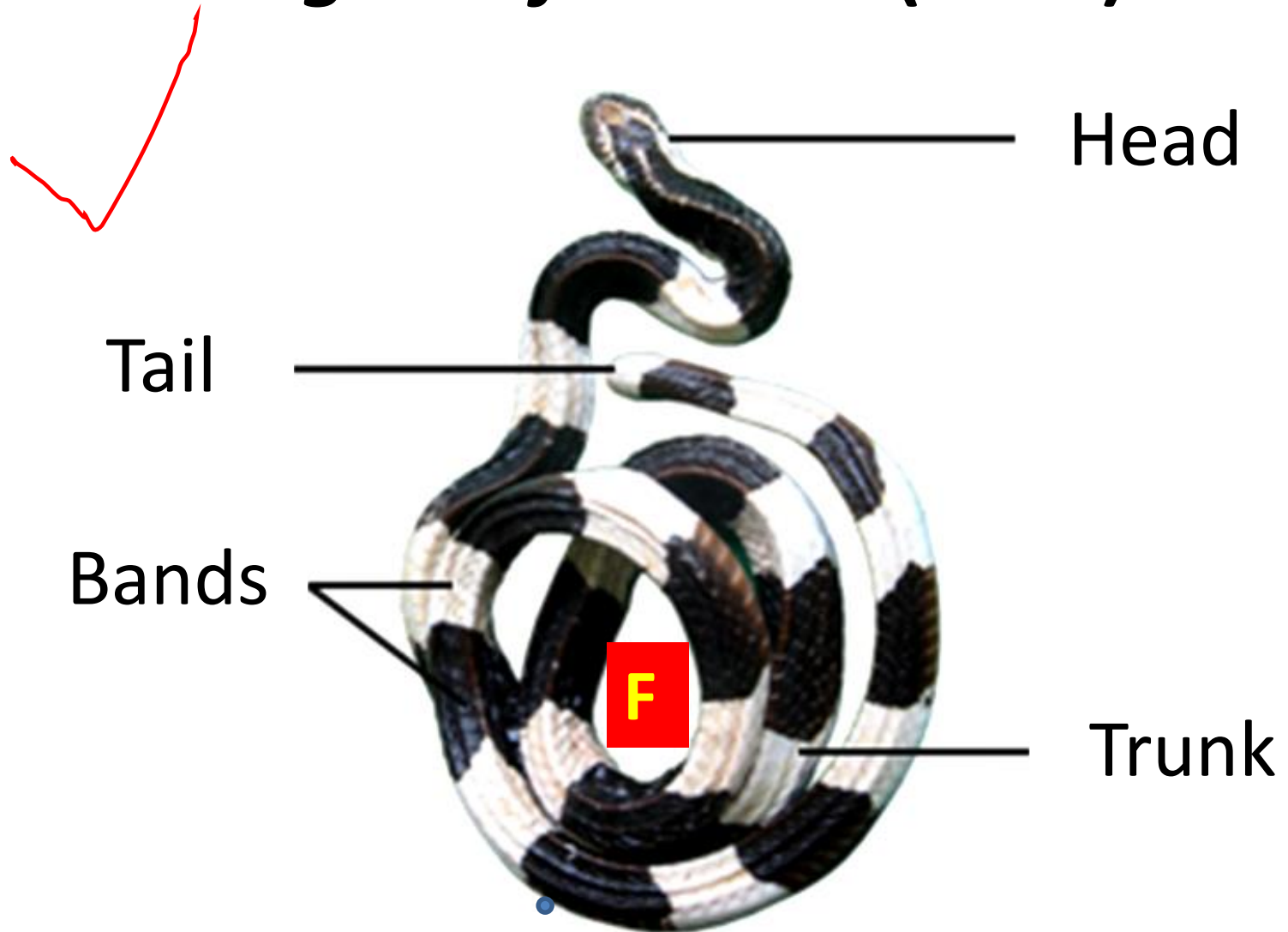
# *Vipera russelli* (Viper)



# *Naja naja* (Cobra)

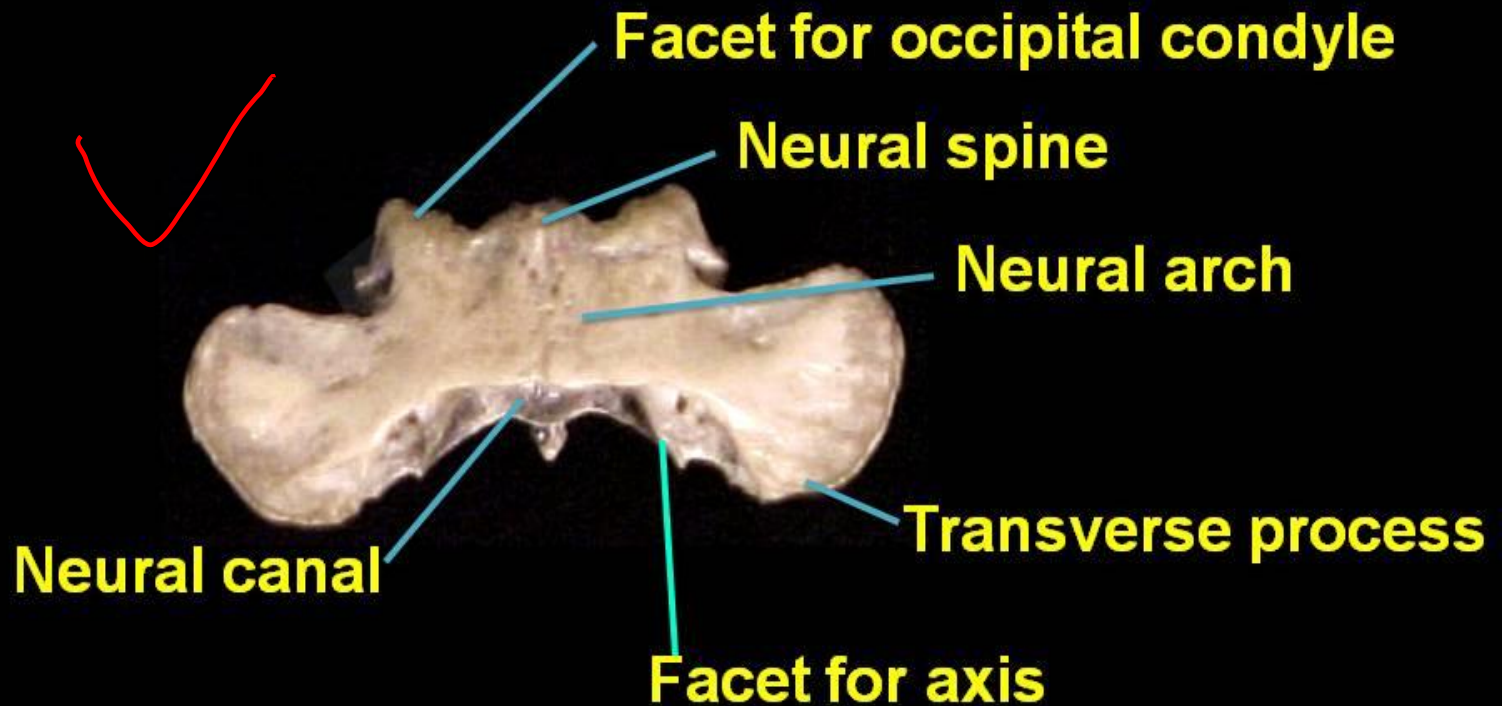


# ***Bungarus fasciatus* (Krait)**



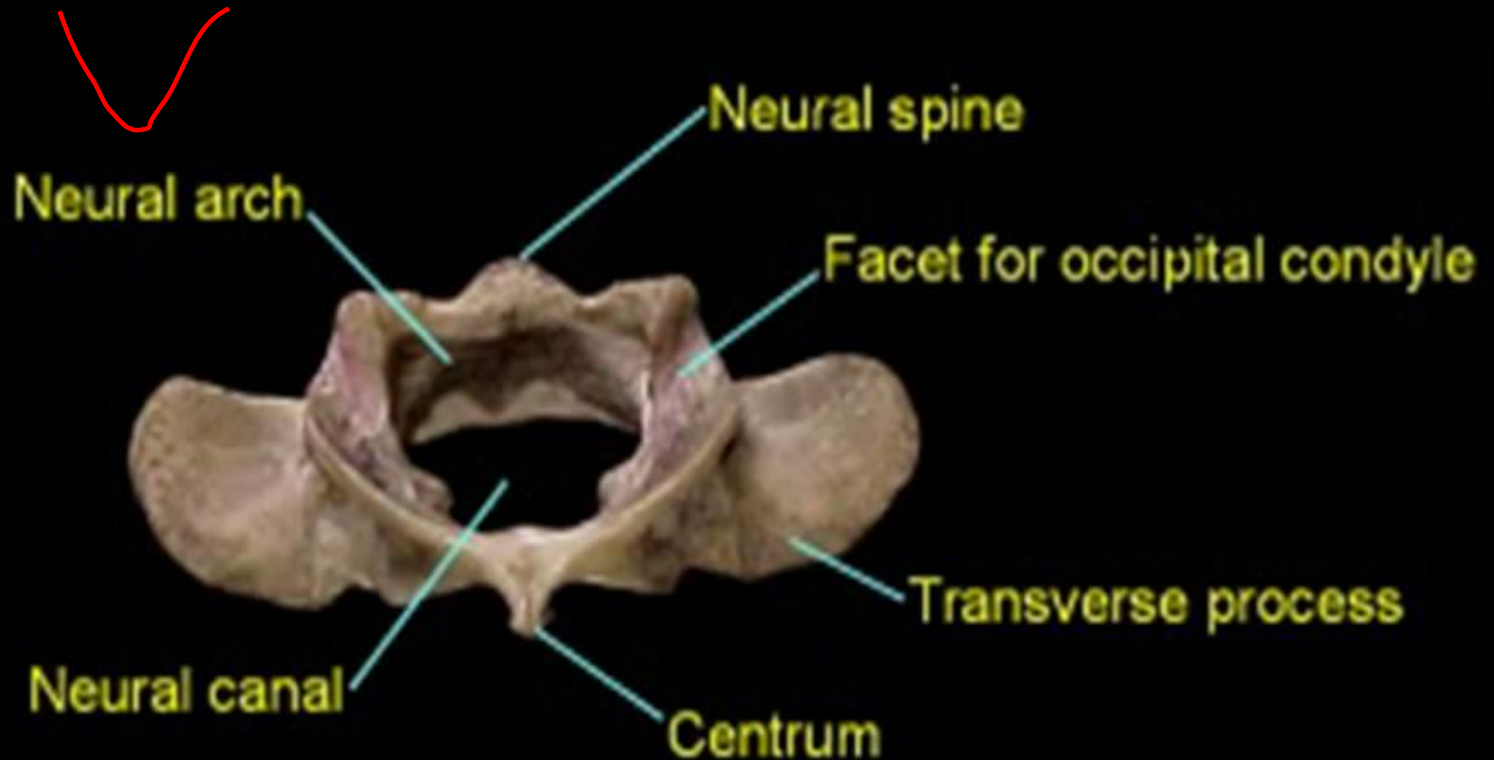


# ATLAS OF RABBIT



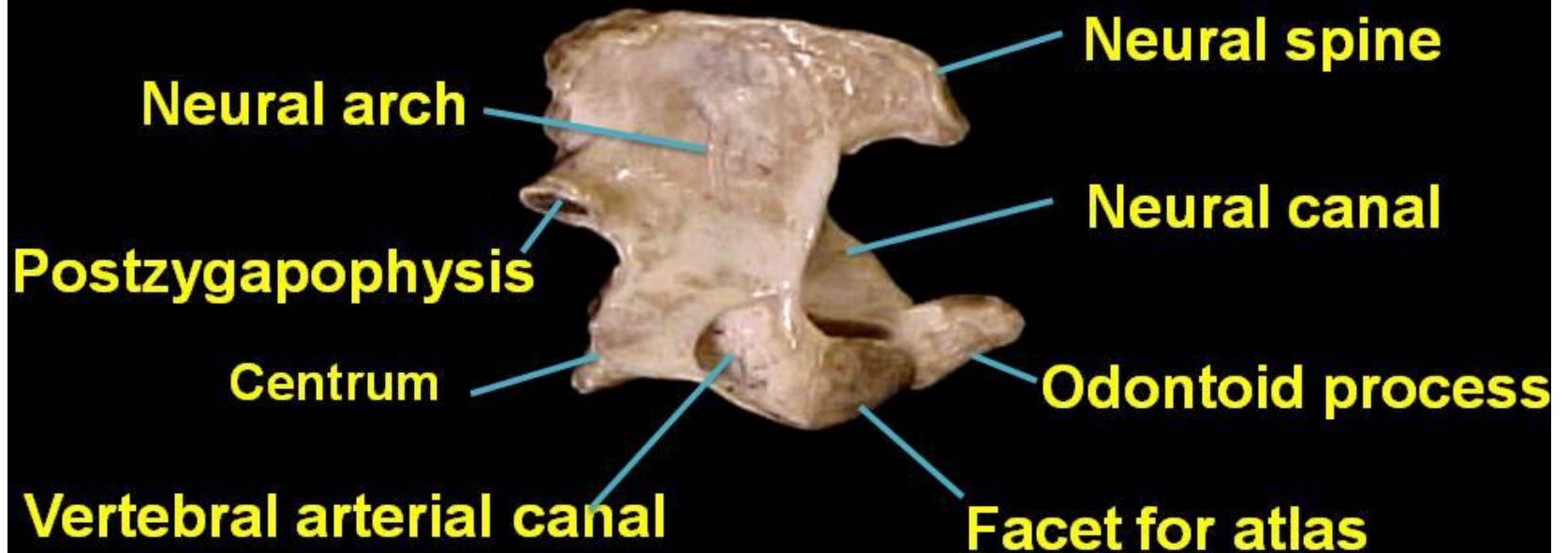
**Dorsal view**

# ATLAS OF RABBIT



Ventral view

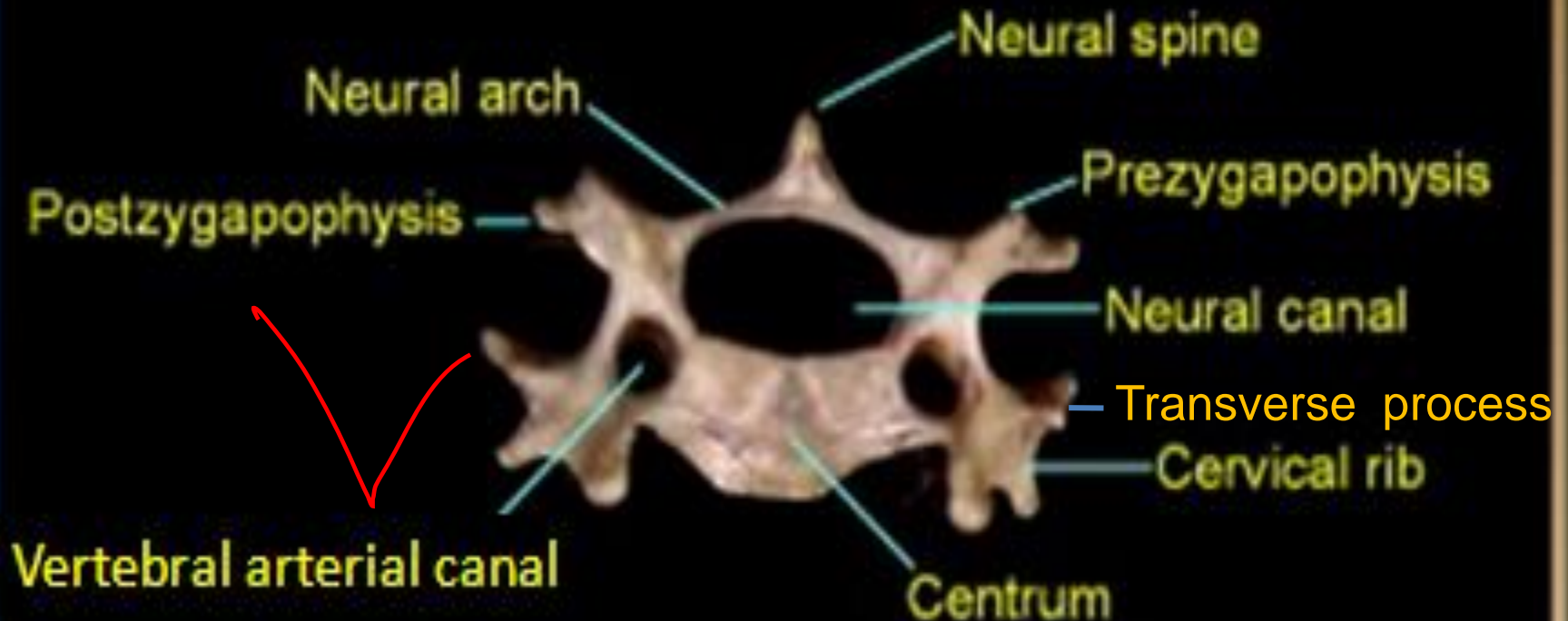
# AXIS OF RABBIT



**Lateral view**

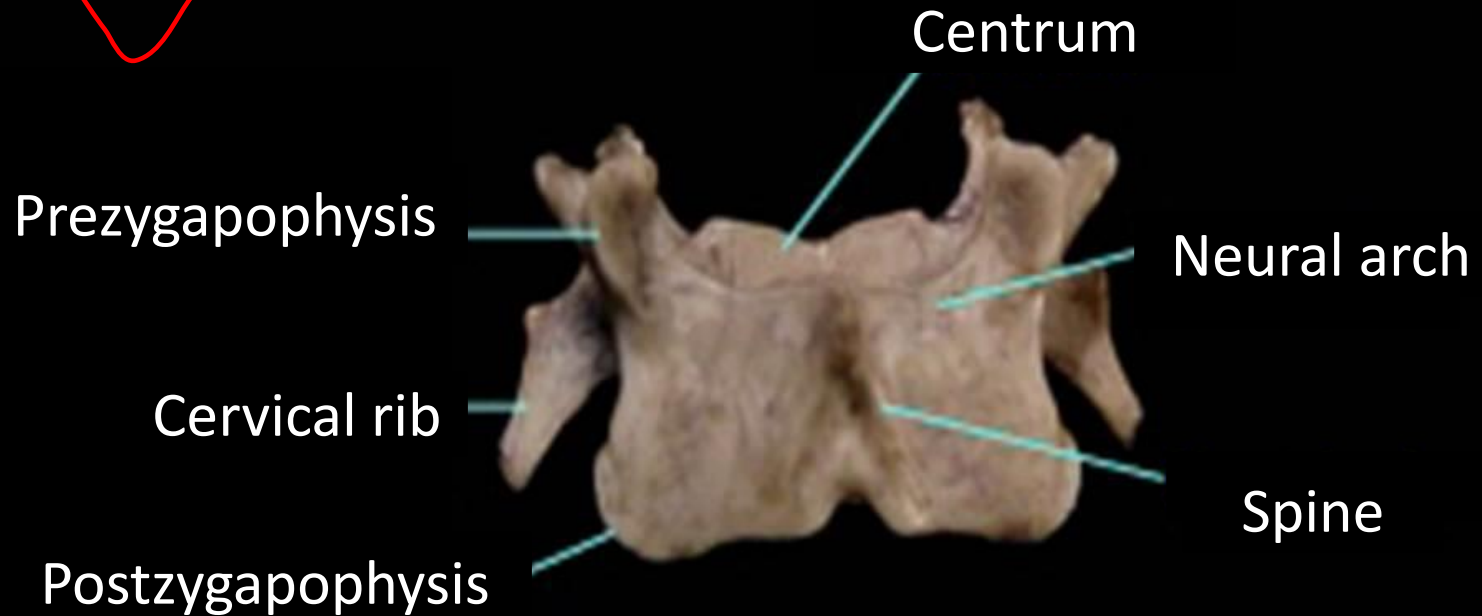


# TYPICAL CERVICAL VERTEBRA OF RABBIT



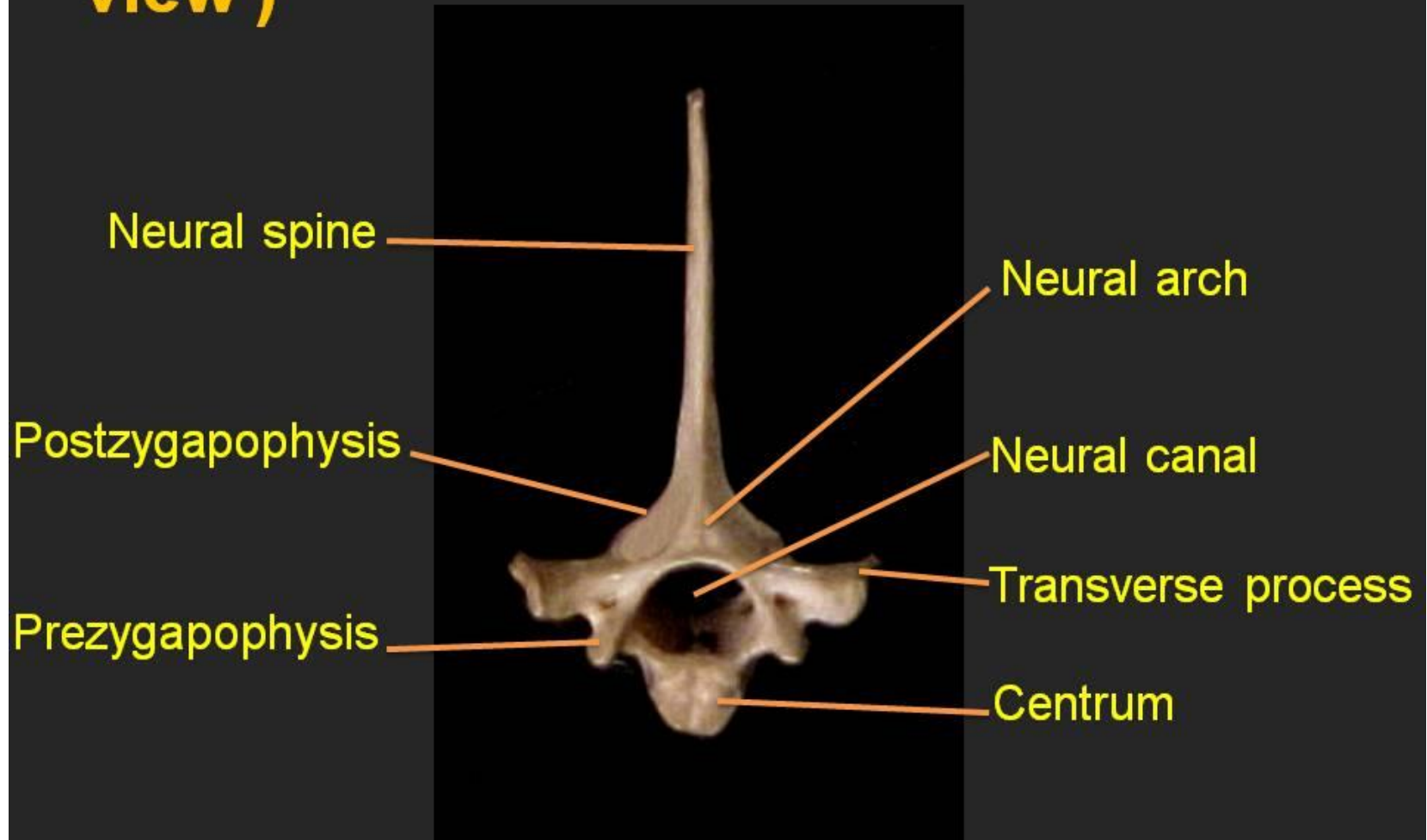
Anterior view

# TYPICAL CERVICAL VERTEBRA OF RABBIT

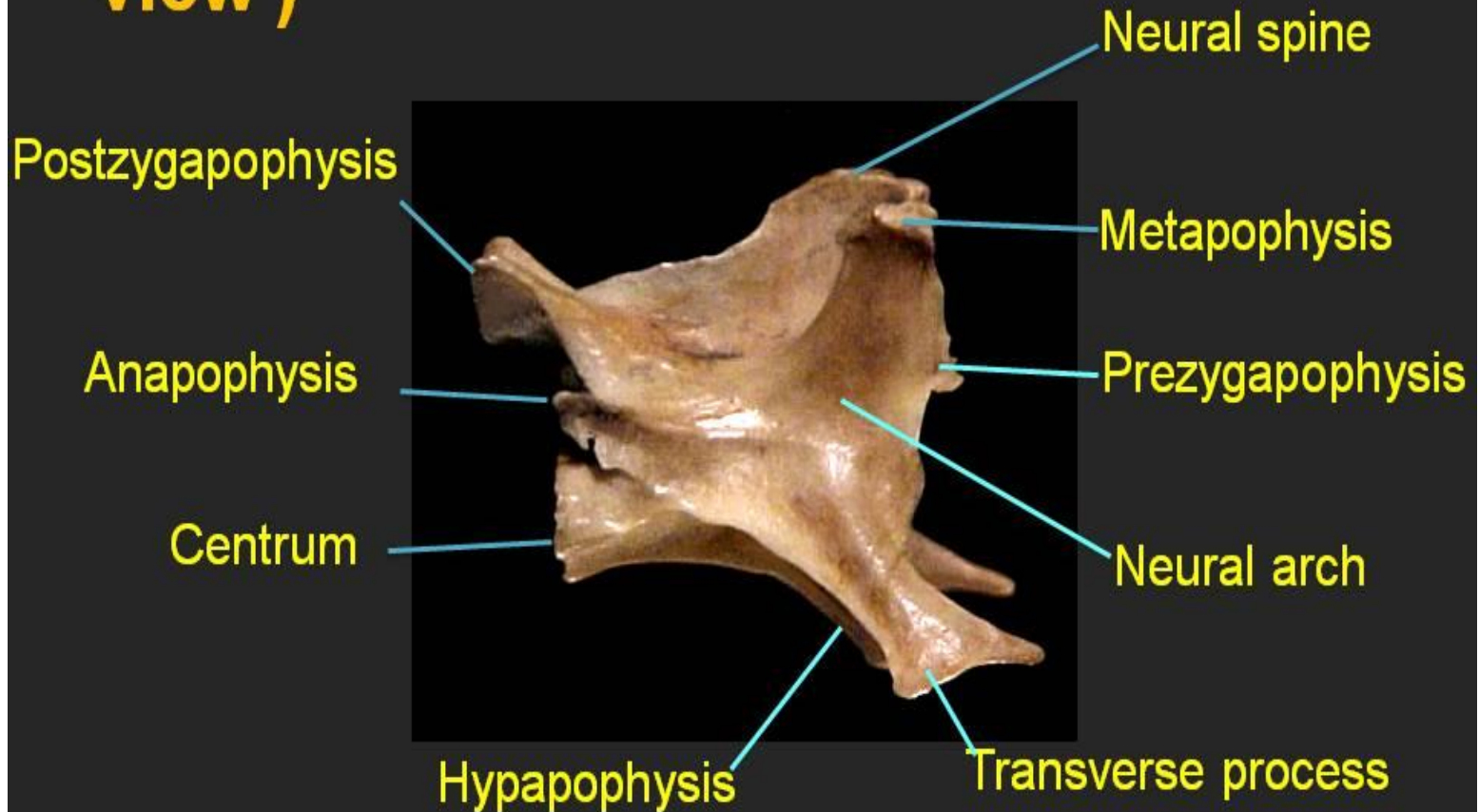


Dorsal view

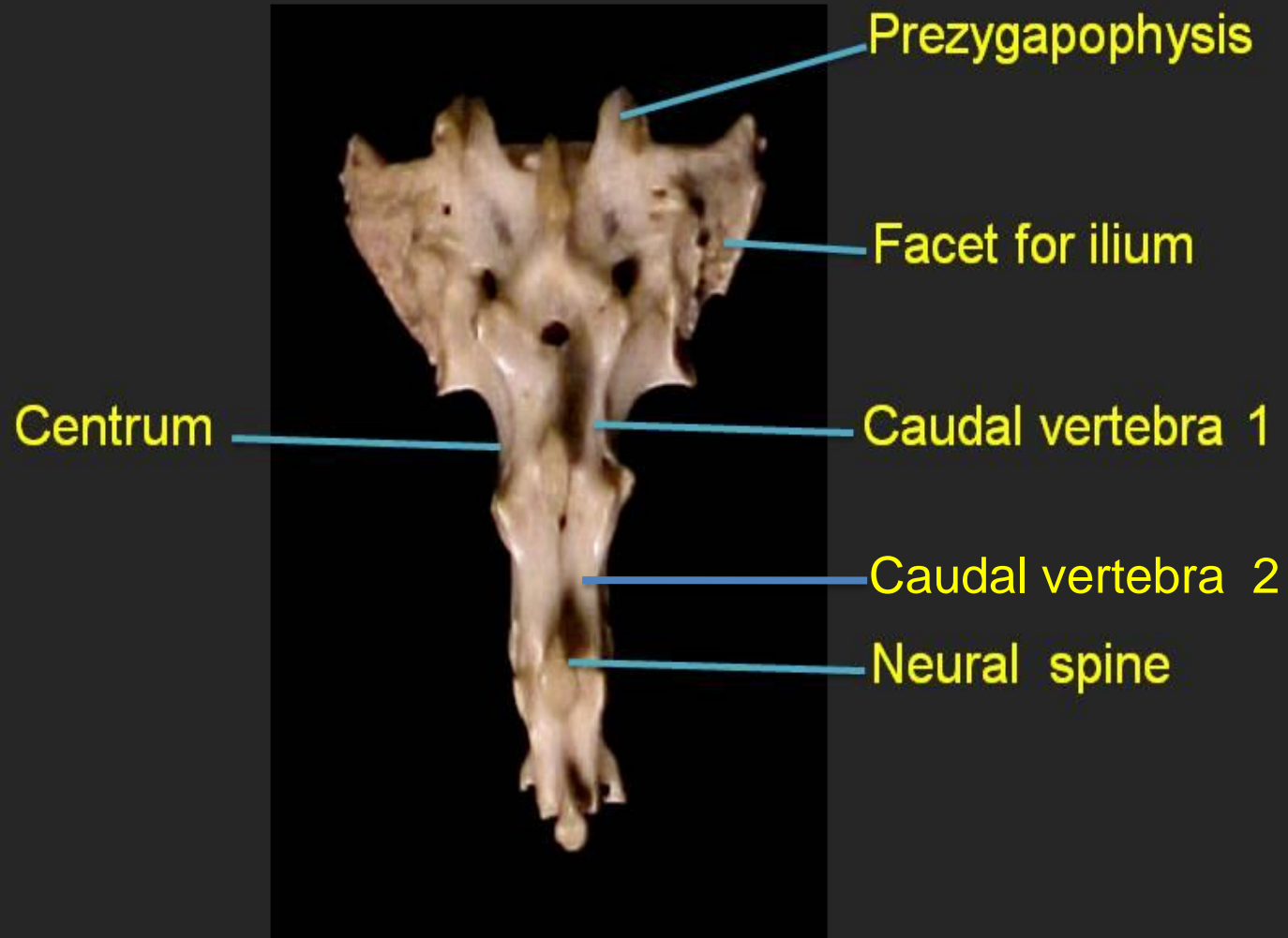
# Thoracic vertebra of rabbit ( anterior view )



# Lumbar vertebra of rabbit ( lateral view )

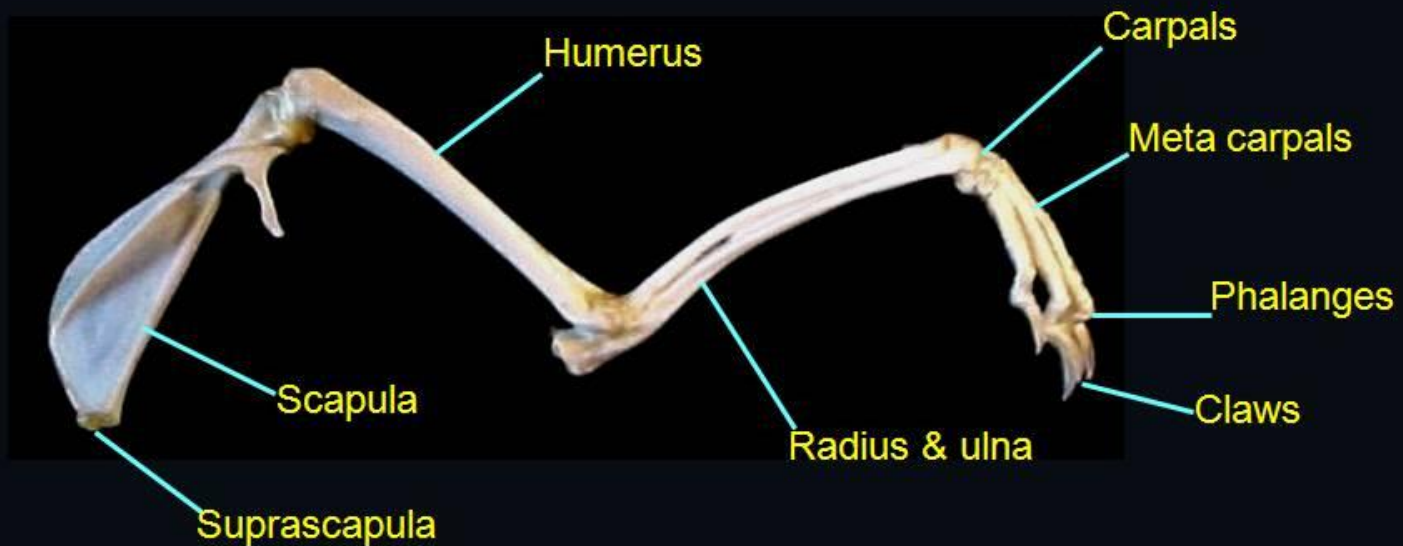


# Sacral vertebra of rabbit ( dorsal view)

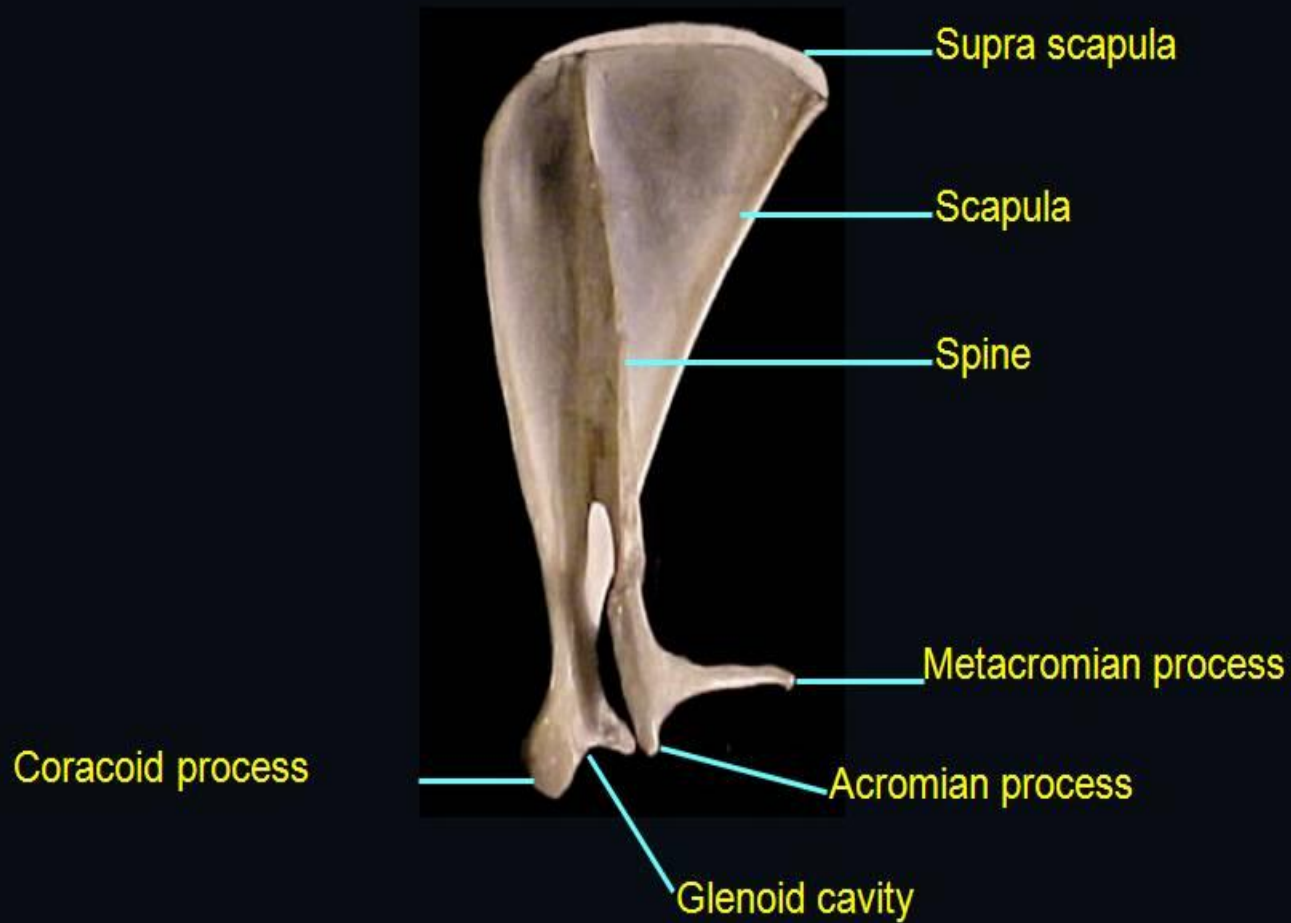




# FORE LIMB BONES OF RABBIT



# SCAPULA OF RABBIT



# Humerus of Rabbit

Lesser  
tuberosity

head

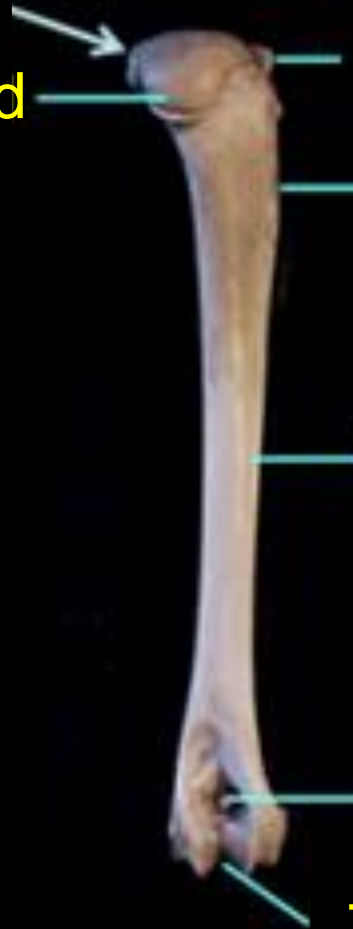
Greater tuberosity

Deltoid ridge

Shaft

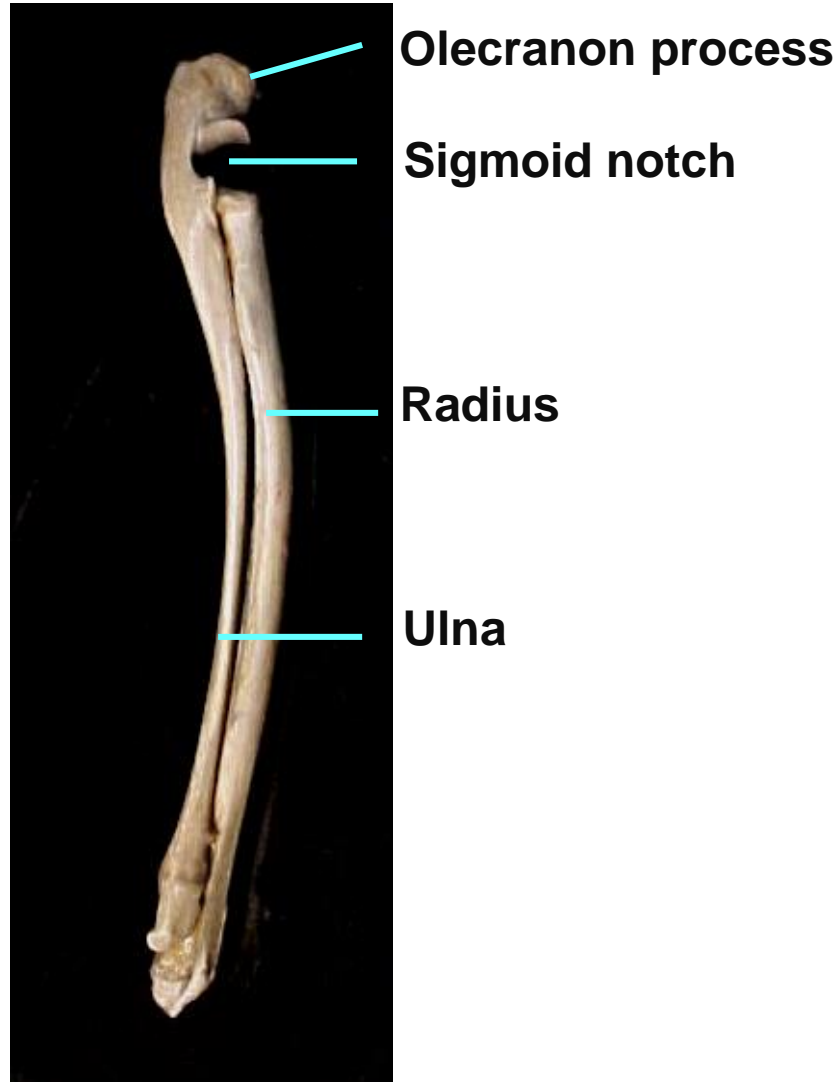
Supra trochlea foramen

Trochlea



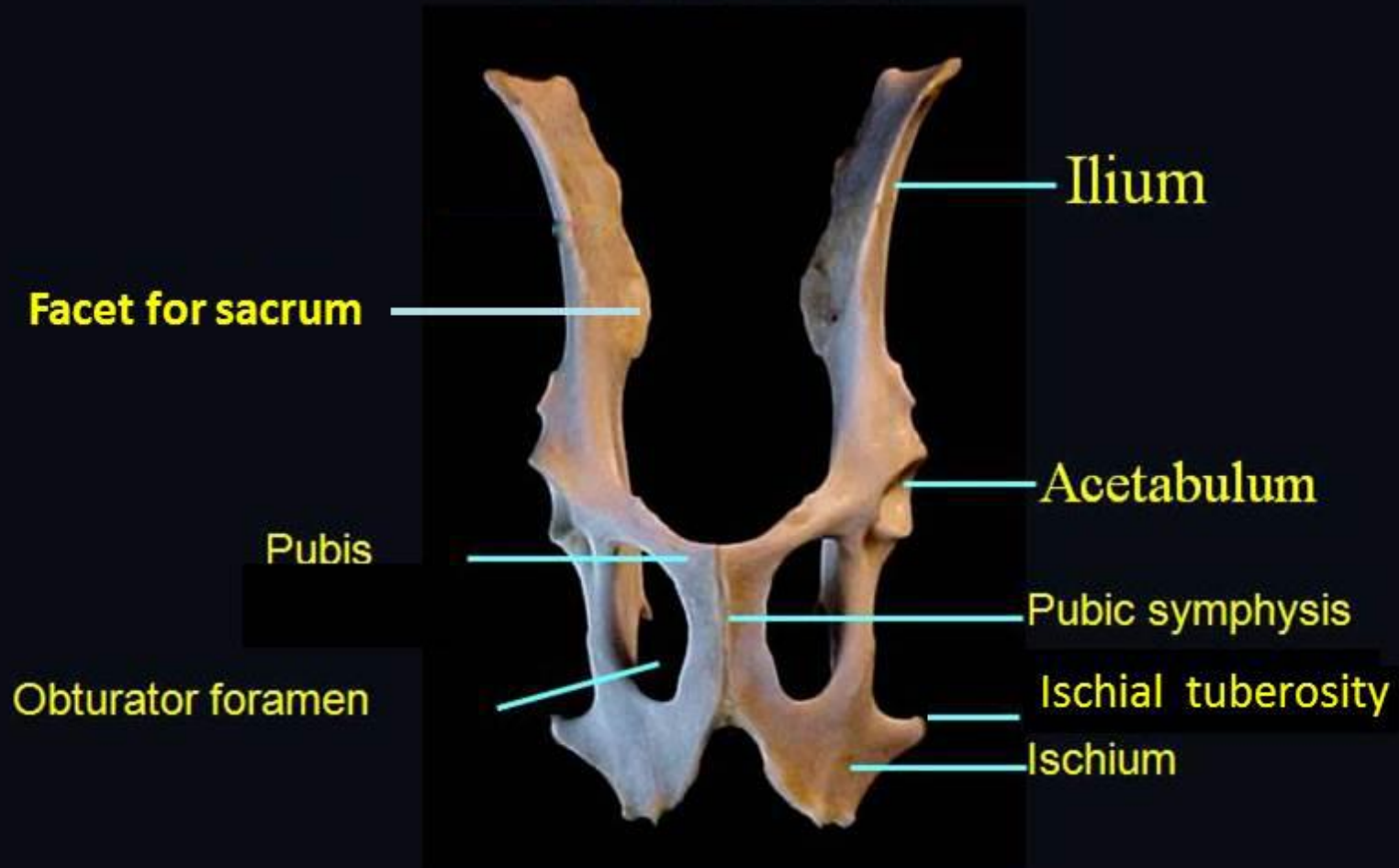


# RADIUS & ULNA OF RABBIT

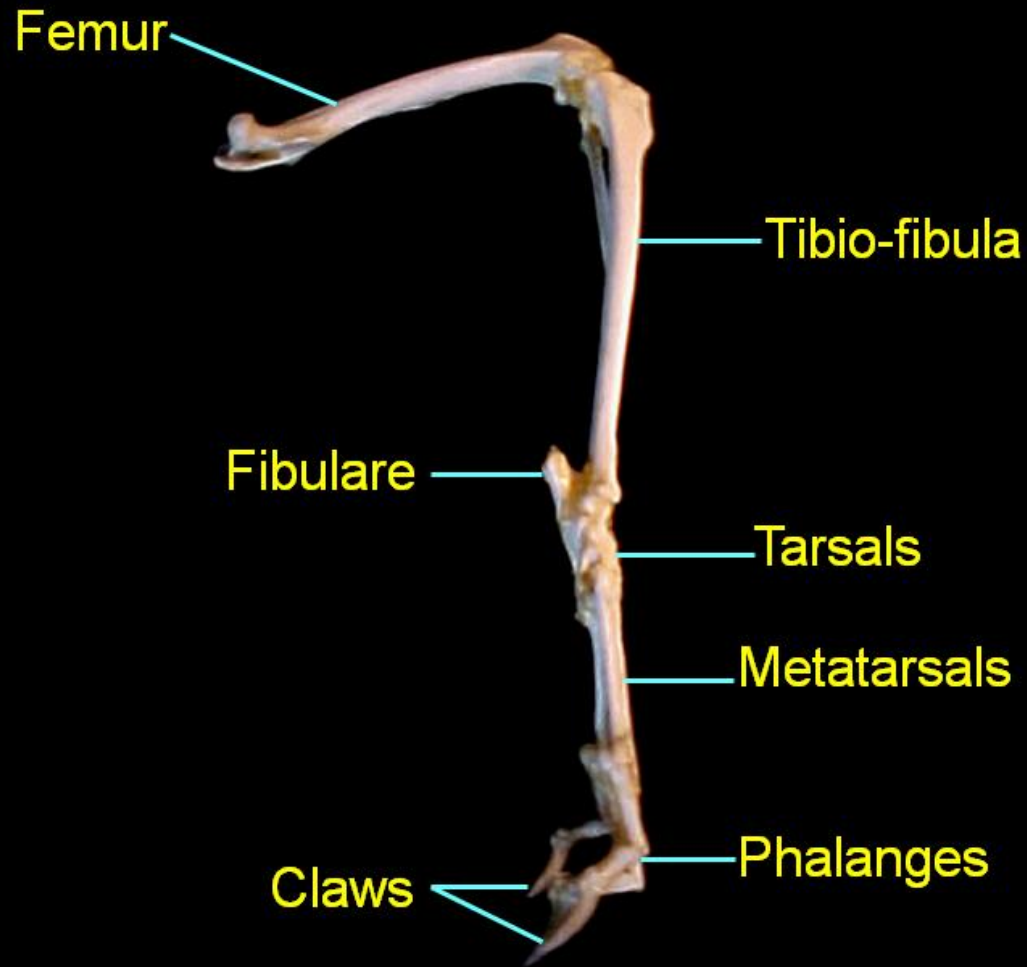


# PELVIC GIRDLE OF RABBIT

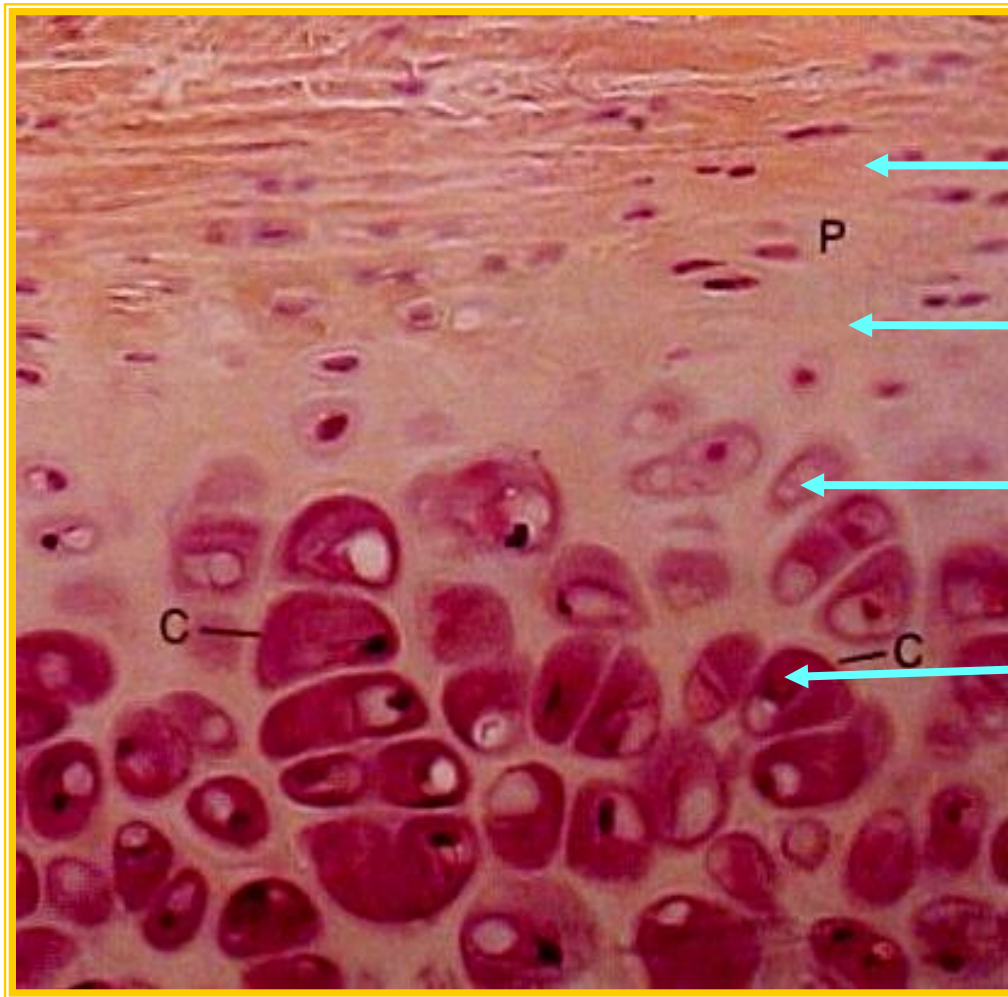
## Ventral view



# HIND LIMB



## (a) Hyaline cartilage



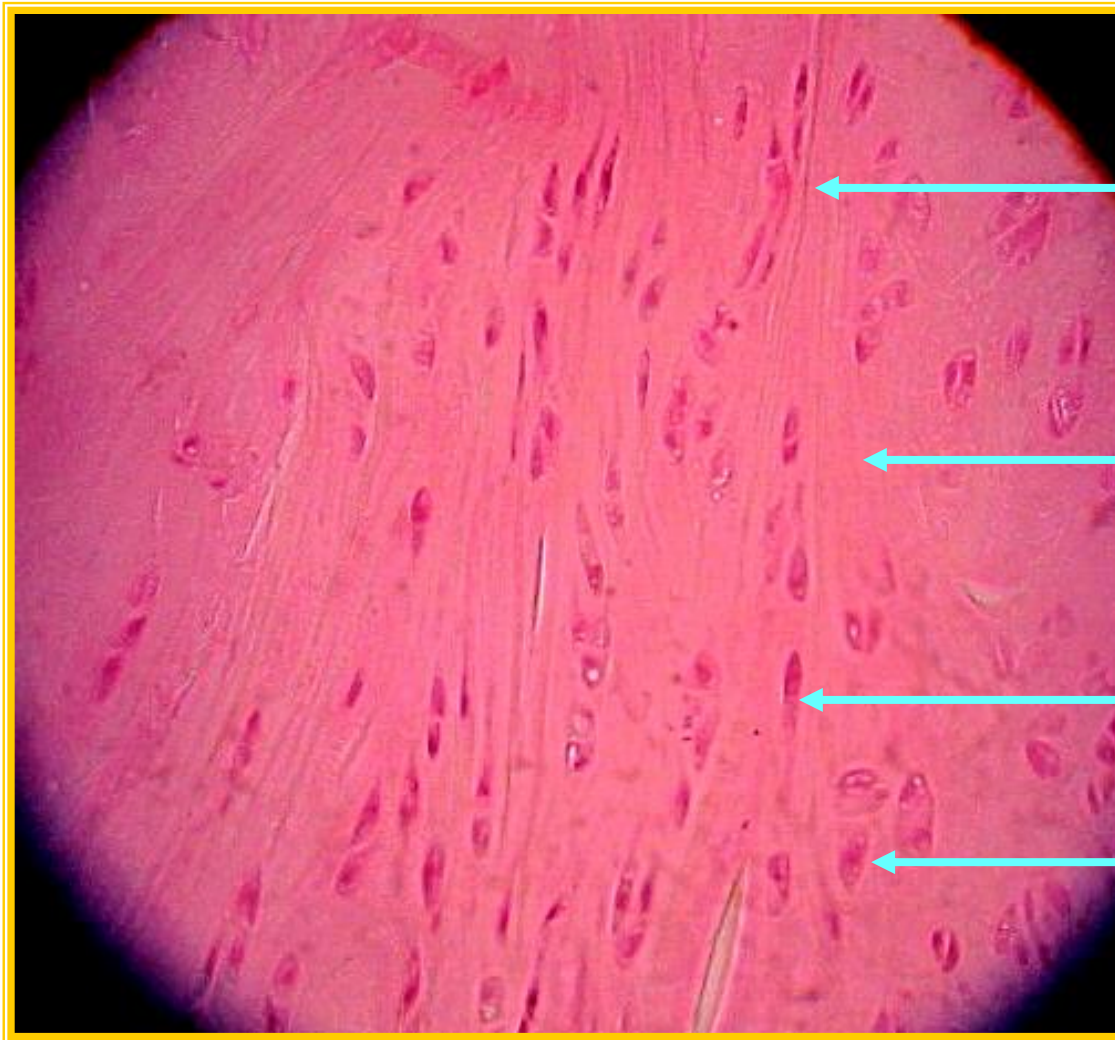
Perichondrium

Chondrin matrix

Lacuna

Cartilage cell in  
lacuna

## ( b ) Fibro-cartilage



Collagen fibres

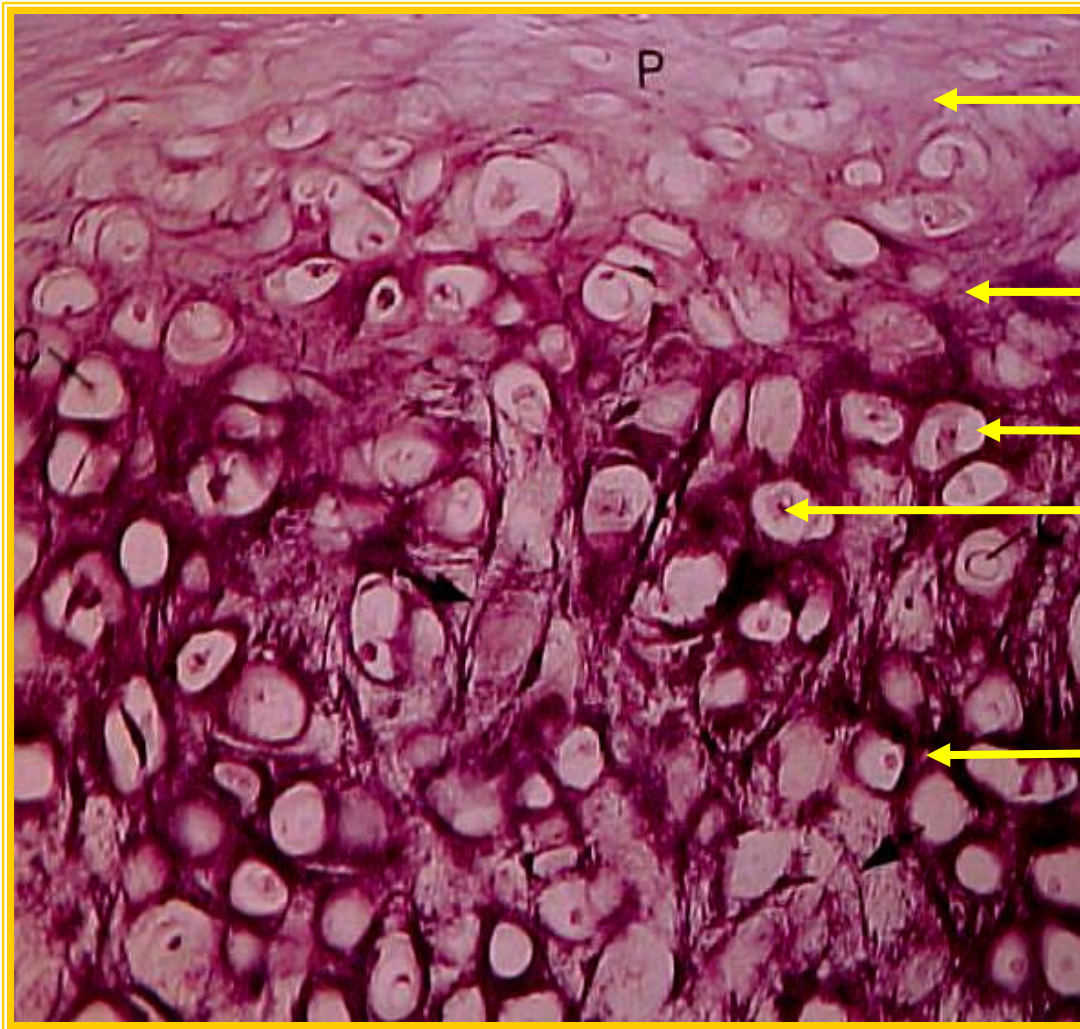
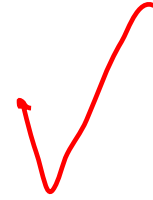
Chondrin matrix

Cartilage cell in  
lacuna

Lacuna



## ( c ) Elastic cartilage



Perichondrium

Chondrin matrix

Lacuna

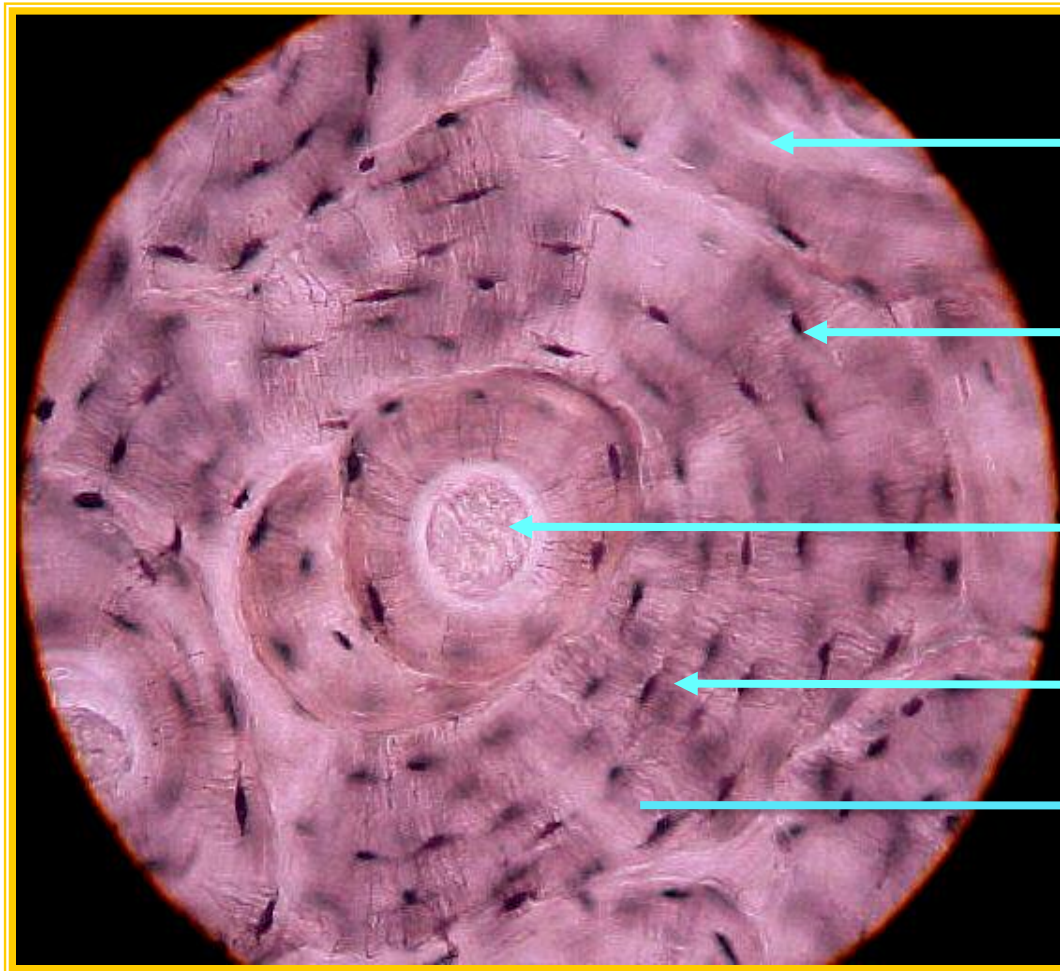
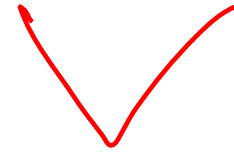
Cartilage cell in  
lacuna

Elastic fibres



# Ground bone X.S.

## Haversian system



← Bone matrix

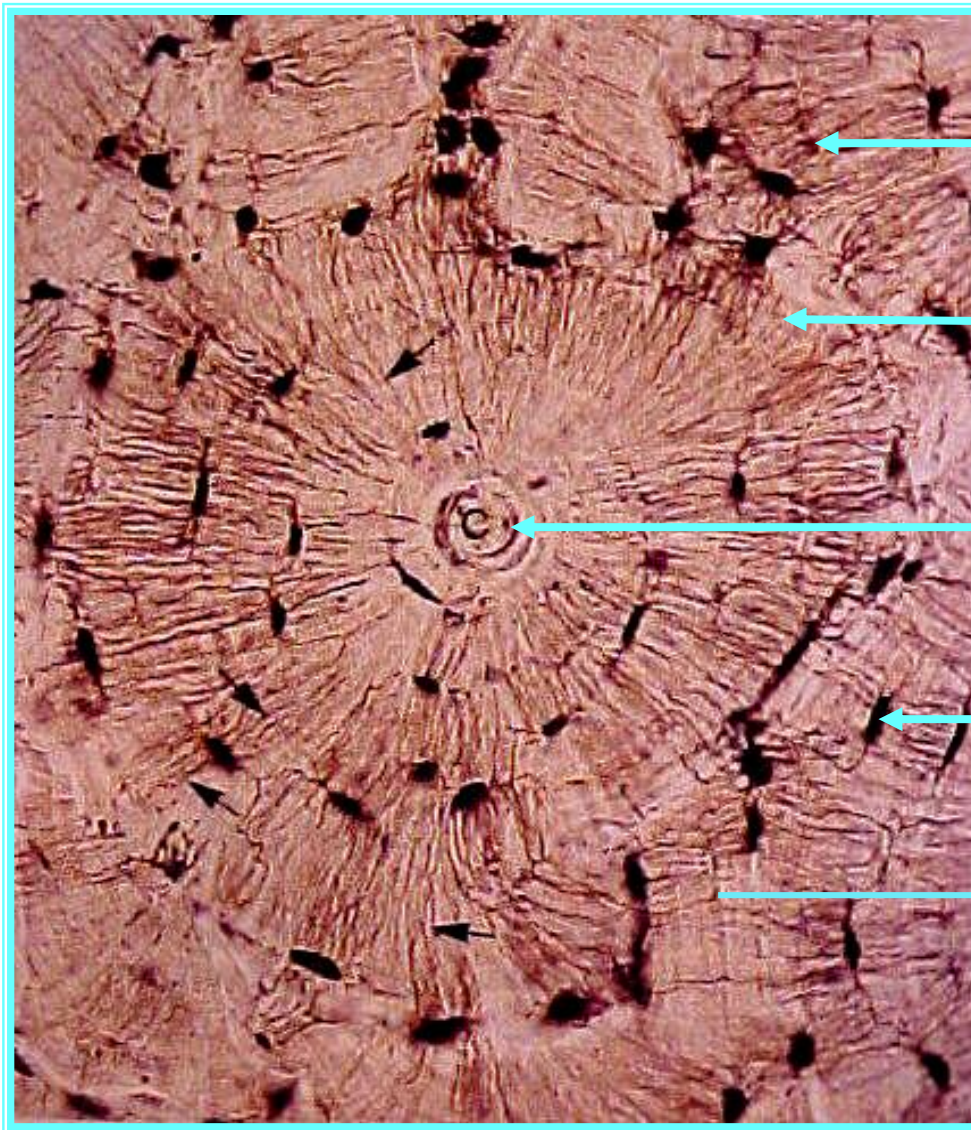
← Bone cell in lacuna

← Haversian canal

← Concentric lamella

← Canaliculi

# Ground bone X.S Haversian system



Canaliculi

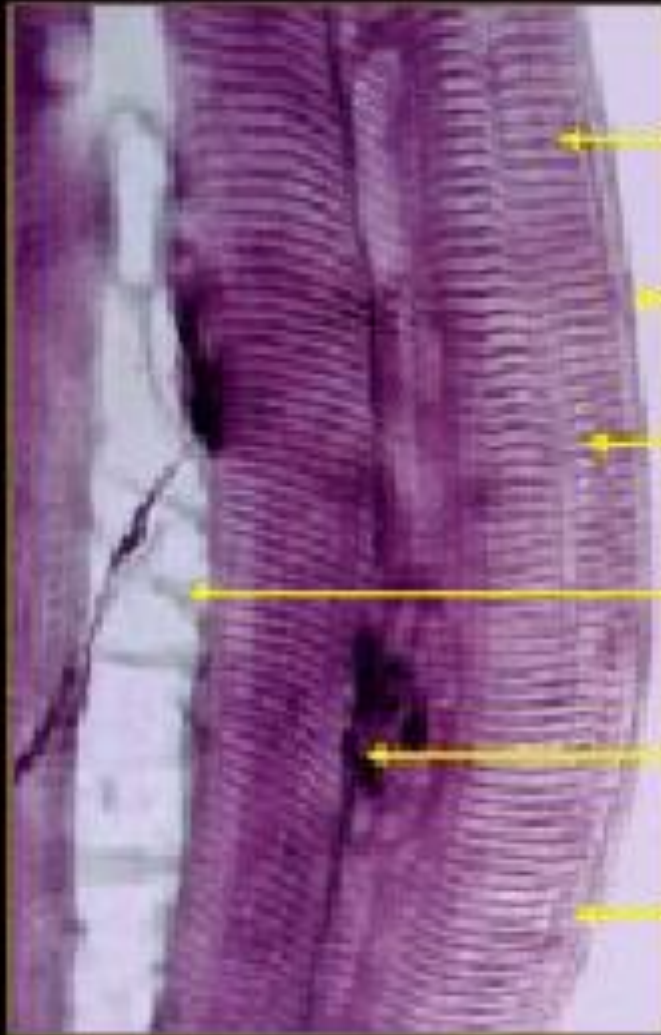
Concentric lamella

Haversian canal

Bone cell in  
lacuna

Bone matrix

# Striated muscle



Transverse stration

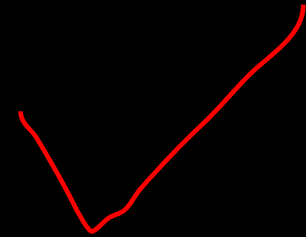
Sarcolemma

Sarcoplasm

Collagen fibres

Nucleus

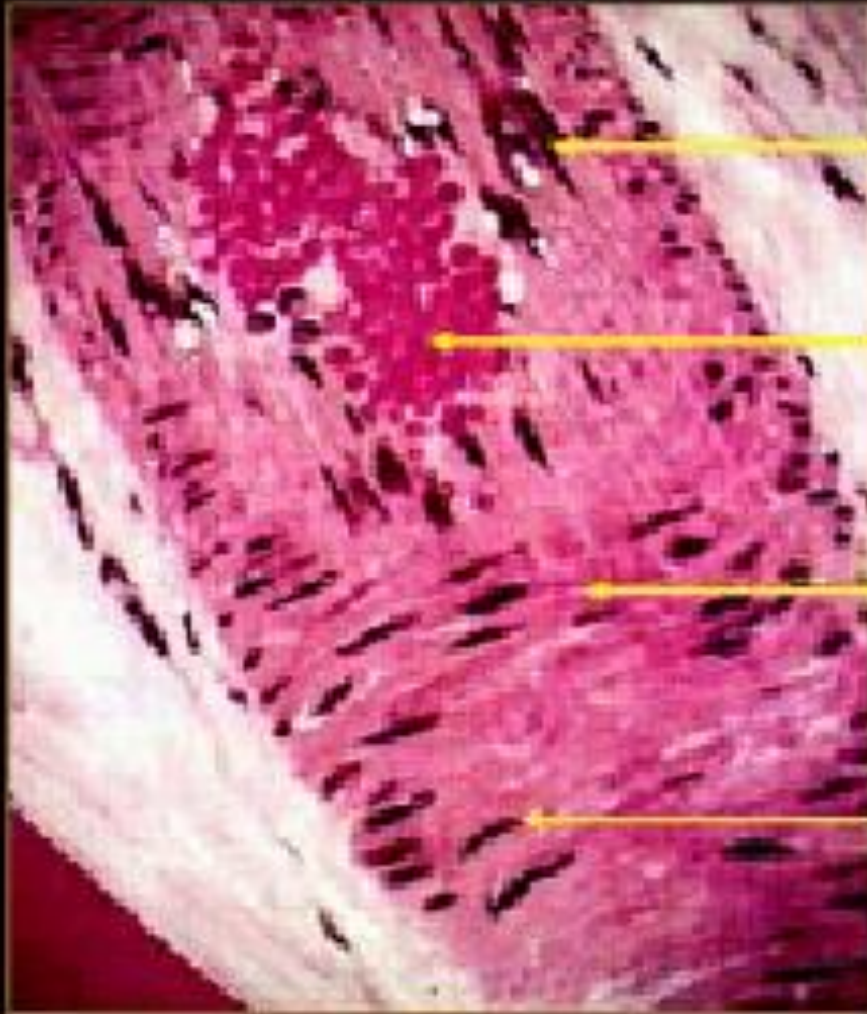
Muscle cell





# Smooth muscle

Wall of blood vessel



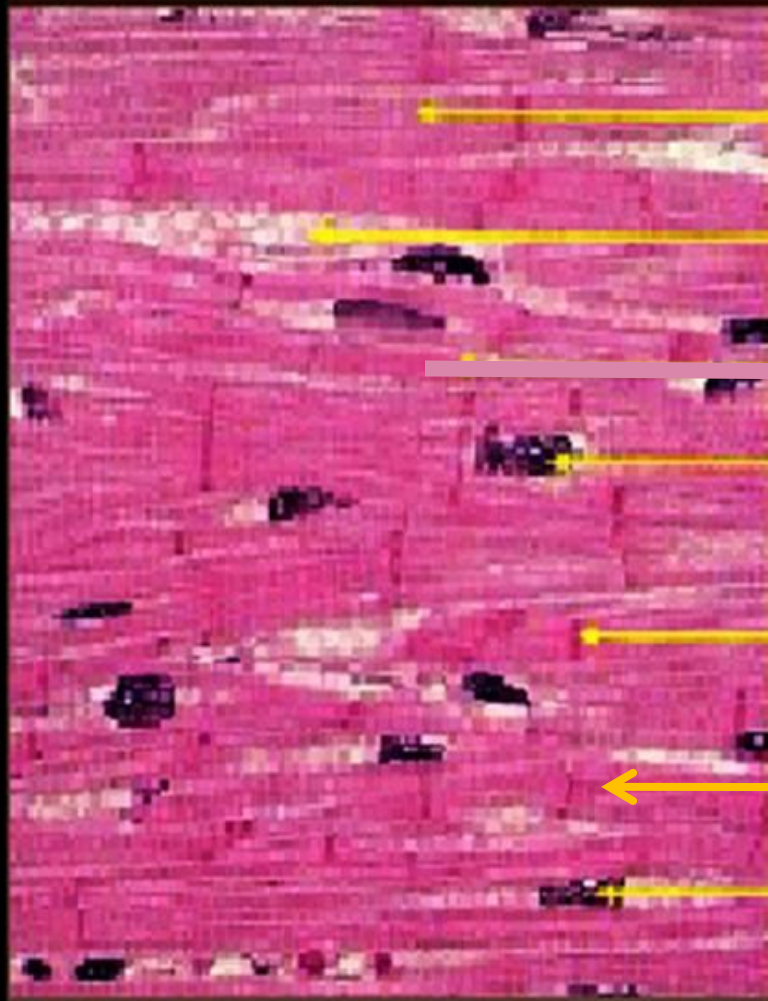
Smooth muscles in longitudinal layer

Blood cells RBC

Smooth muscles in circular layer

Nucleus

# Cardiac muscle



Light striation

Connective tissue

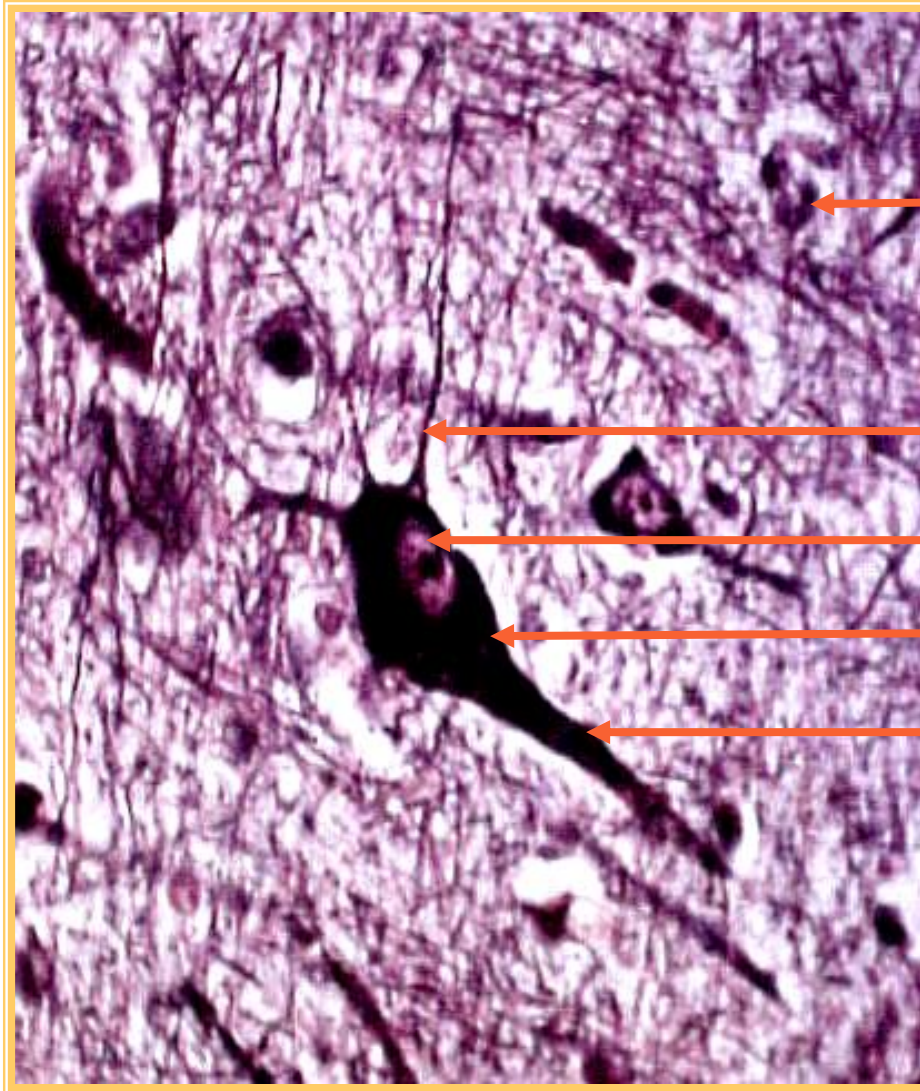
Nucleus of muscle cell

Intercalated disc

Branch of muscle

Nucleus of connective tissue cell

# Neuron / Nerve cell



● Glial cell

● Dendrite

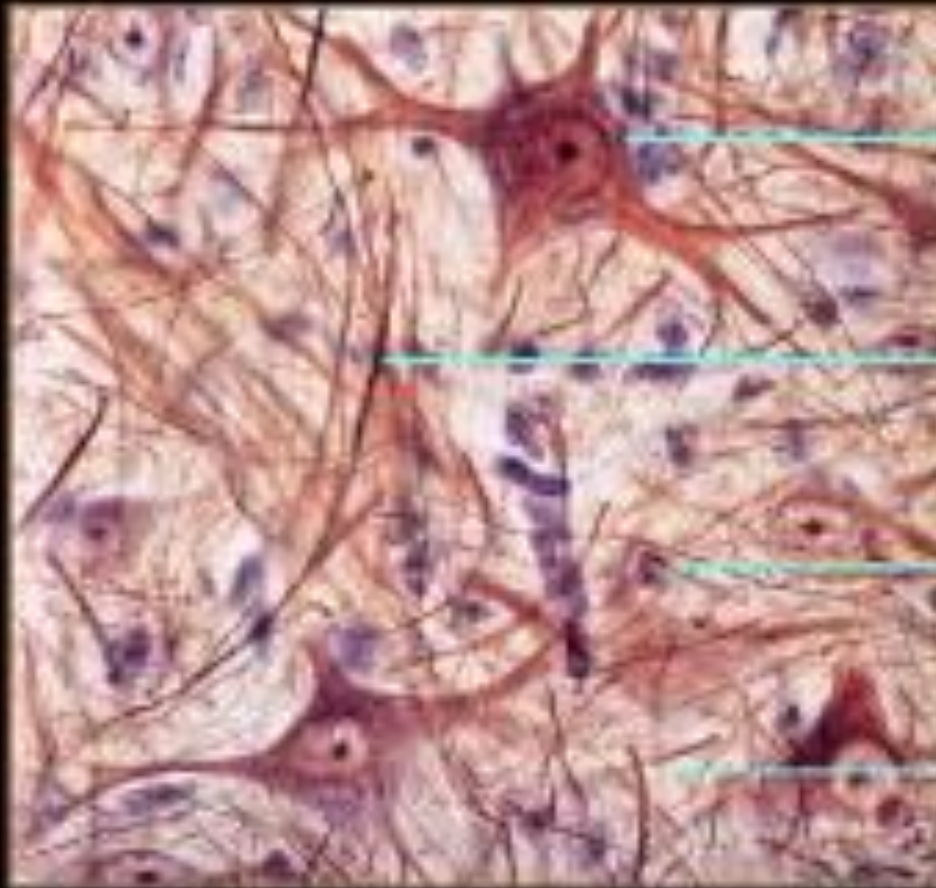
● Nucleus

● Cell body

● Axon



# Nerve tissue



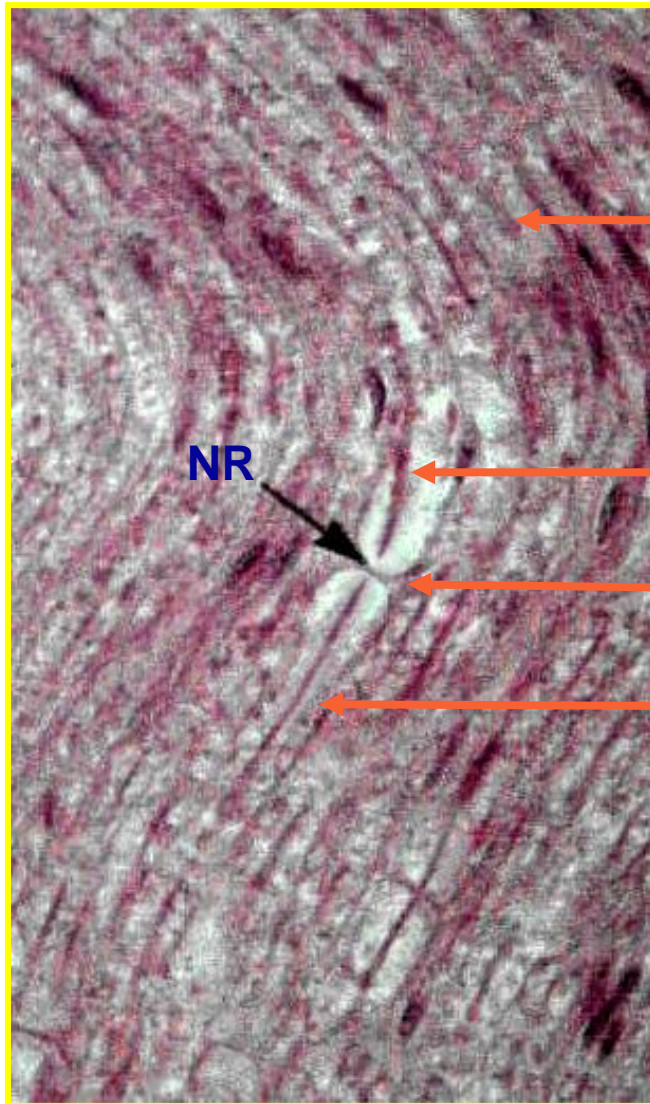
Nerve cell

Nerve fibers

Glial cell

Neuroglia

# Myelinated nerve



Nerve in bundle

Axon

Node of Ranvier

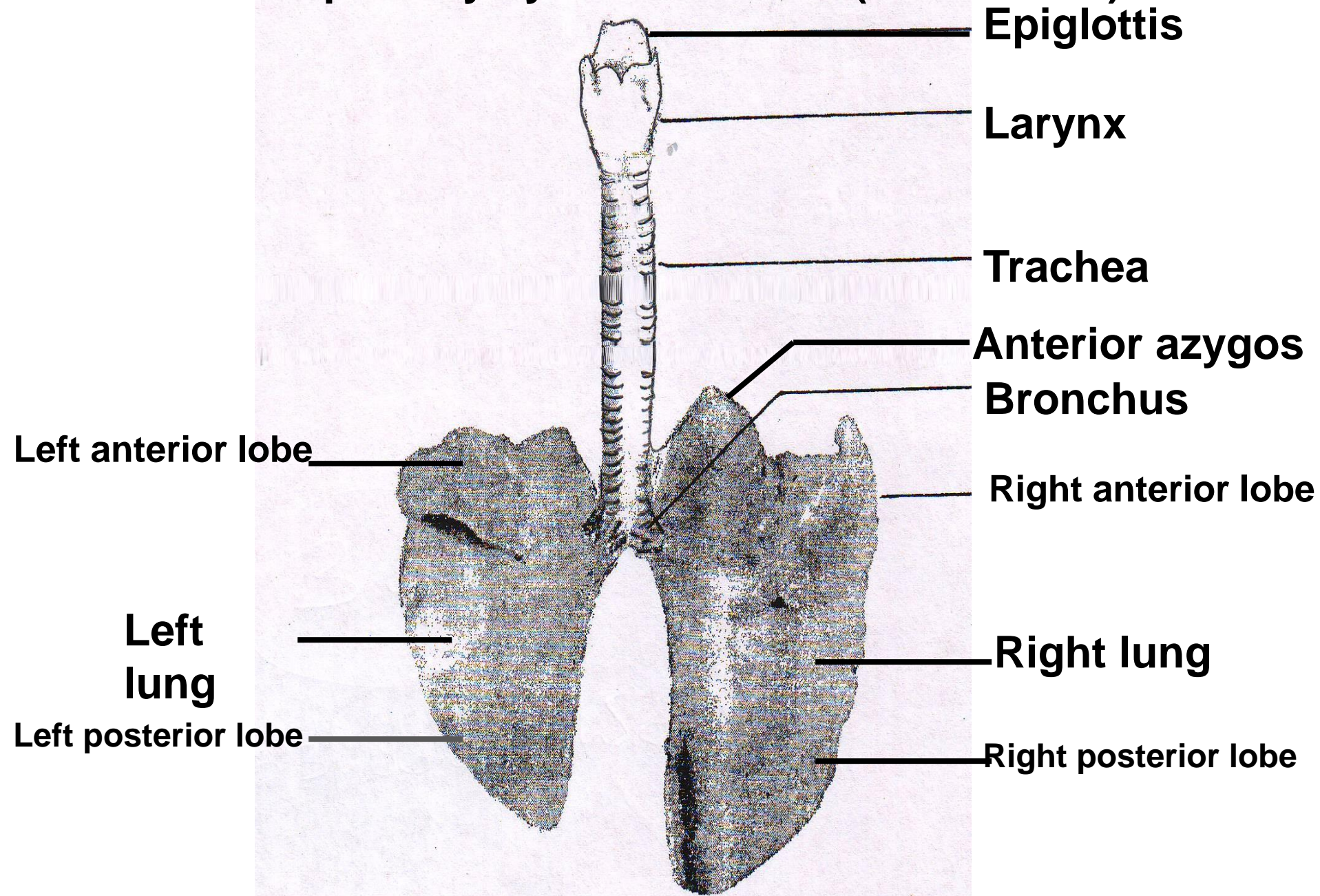
Myelin sheath

Neurilemma

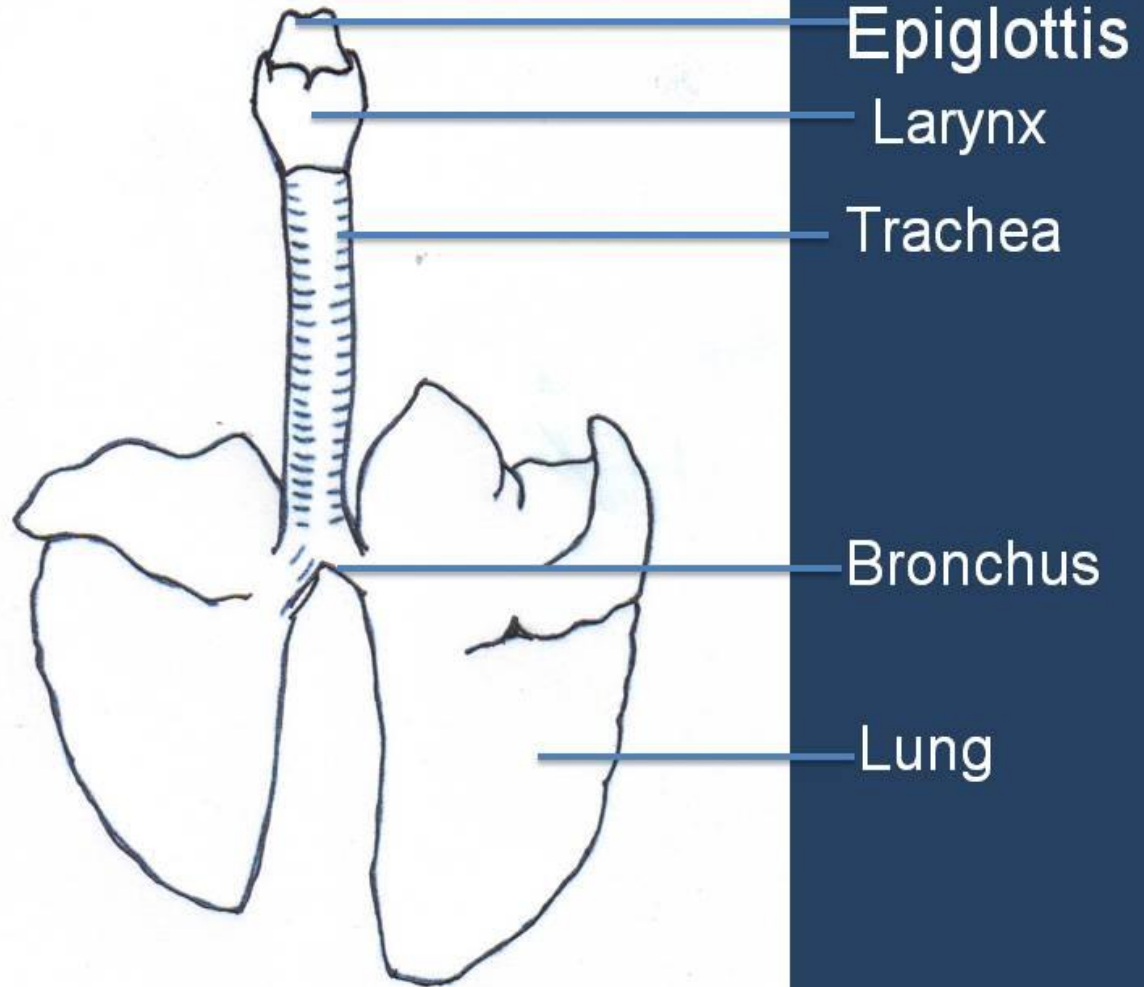




# Respiratory system of rabbit (dorsal view)

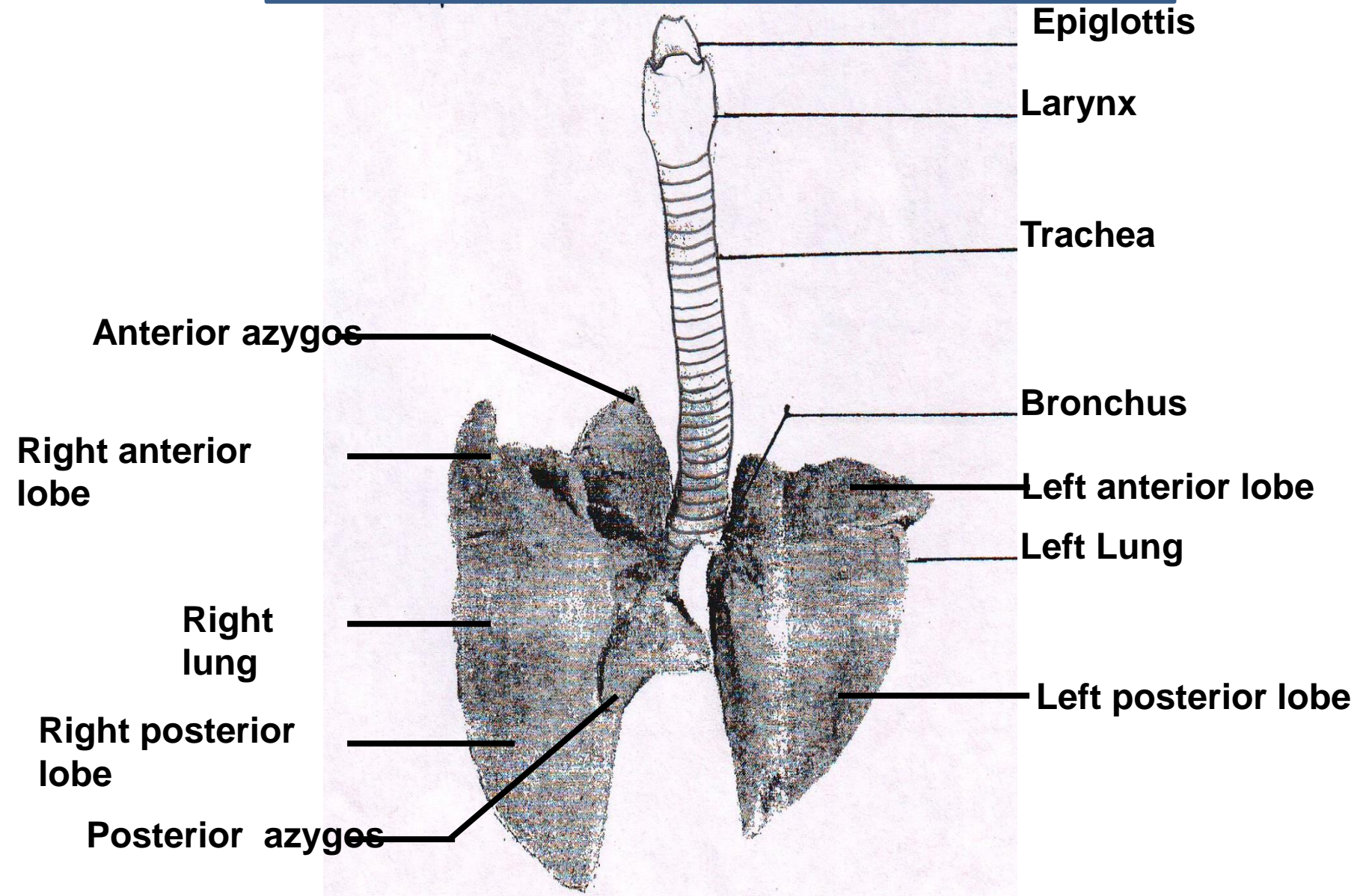


## Respiratory system of rabbit (Dorsal view)

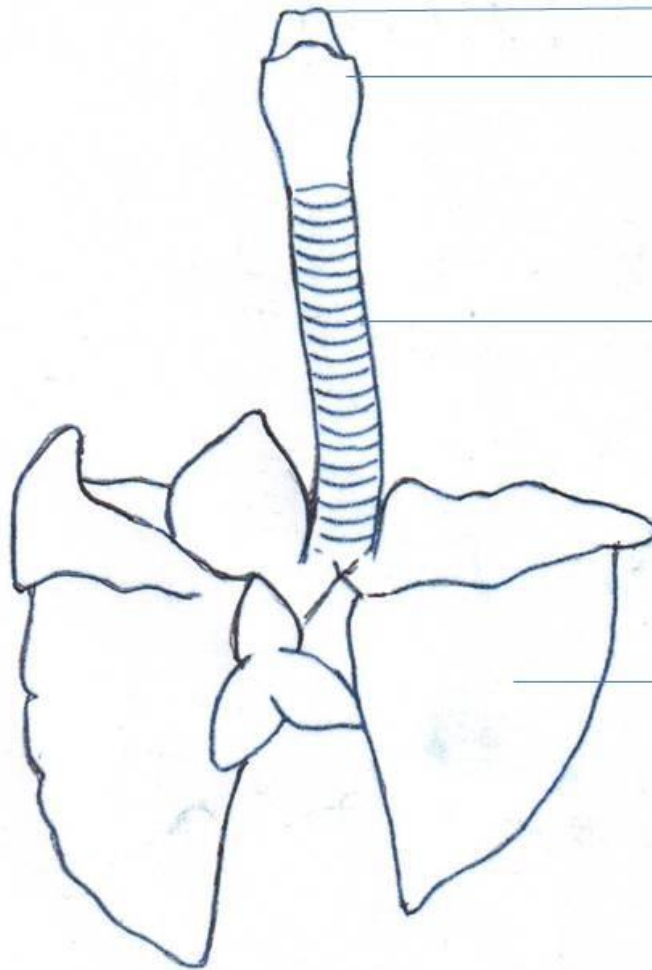




## Respiratory system of Rabbit (ventral view)



## **Respiratory system of rabbit (ventral view)**



Epiglottis

Larynx

Trachea

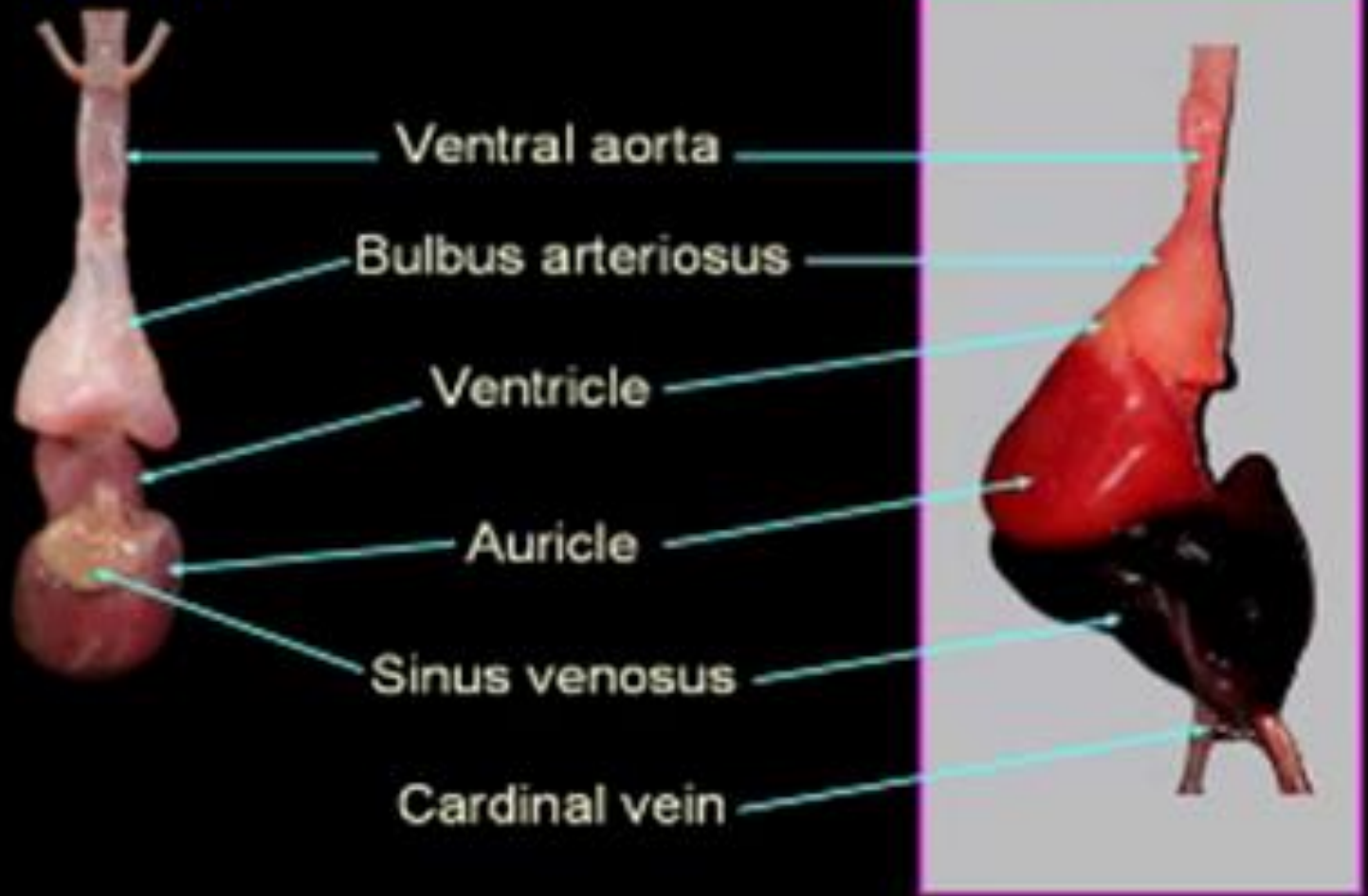
Lung



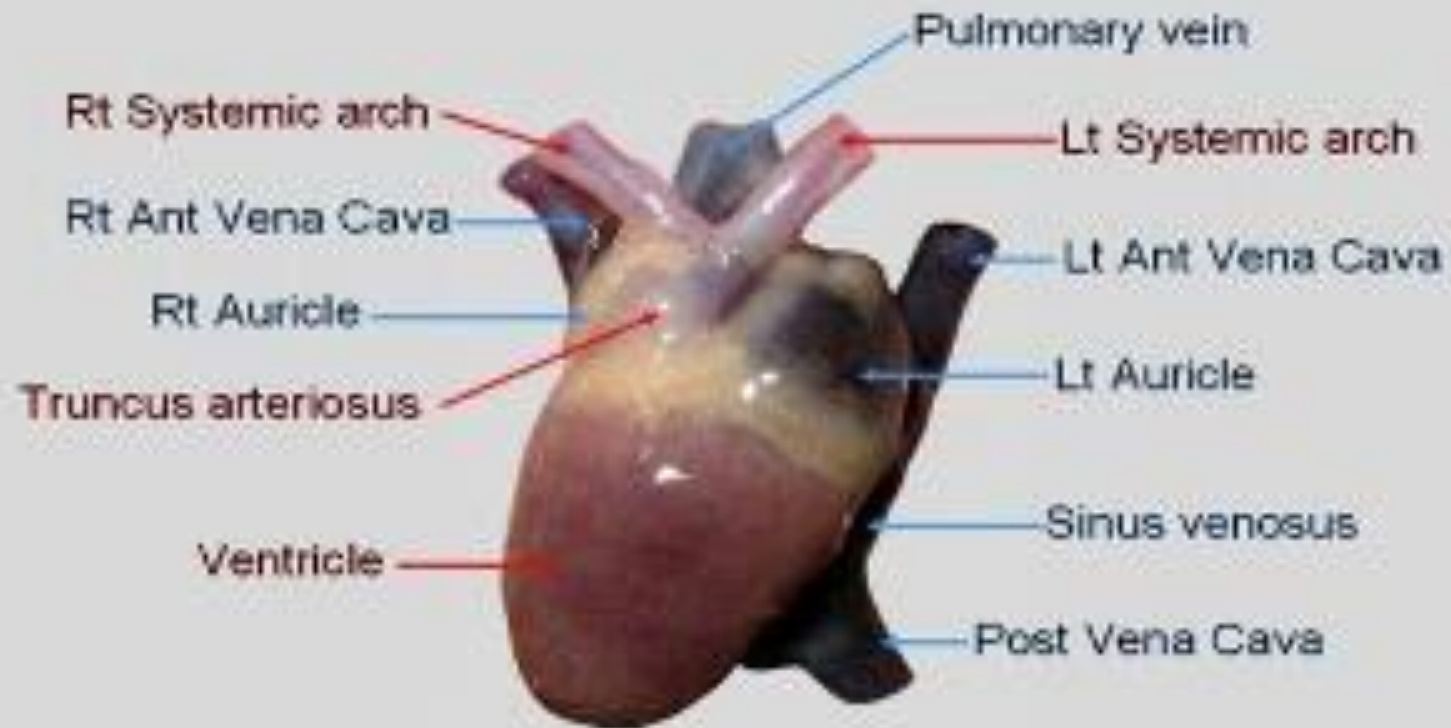
# Fish Heart

Dorsal

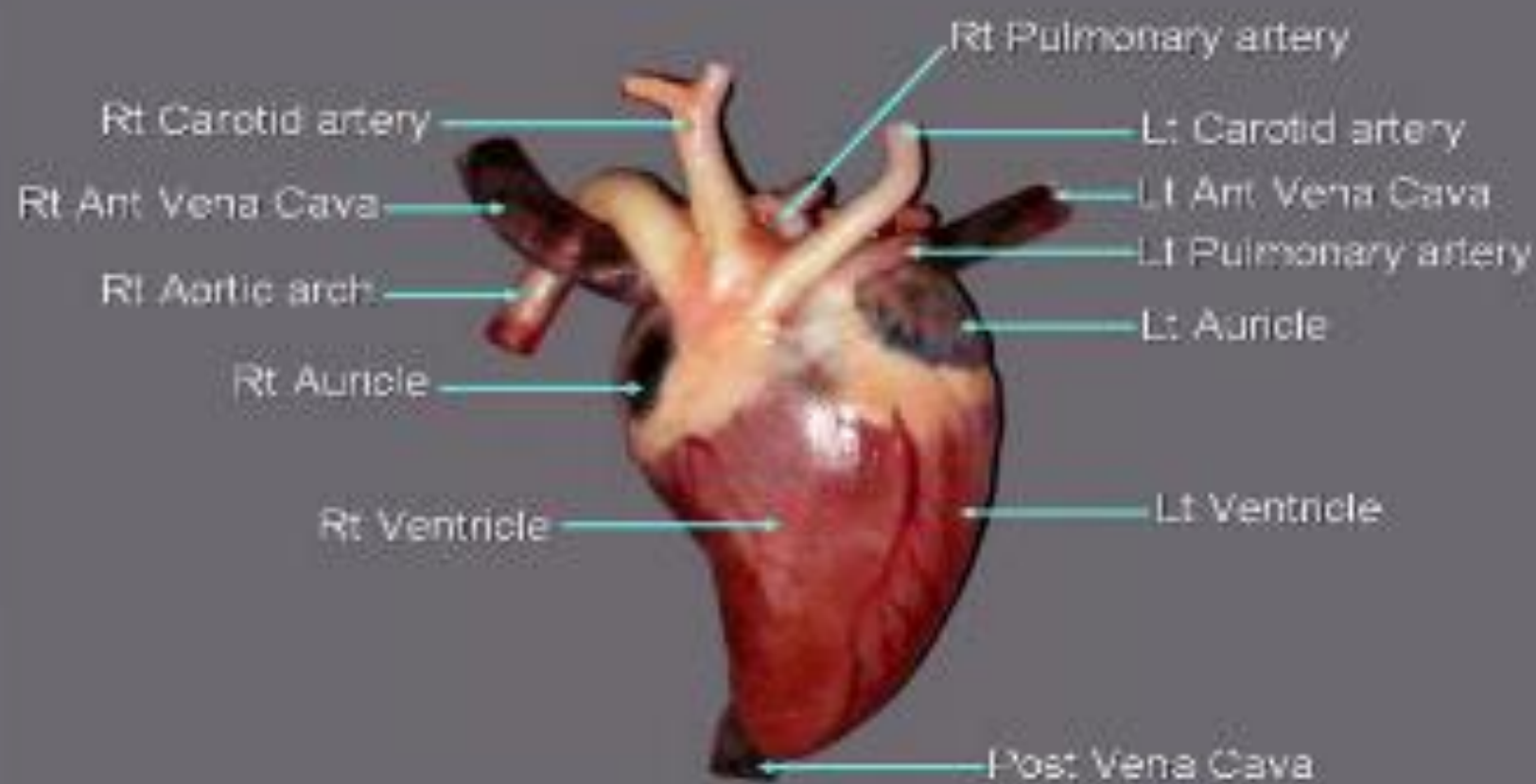
Lateral



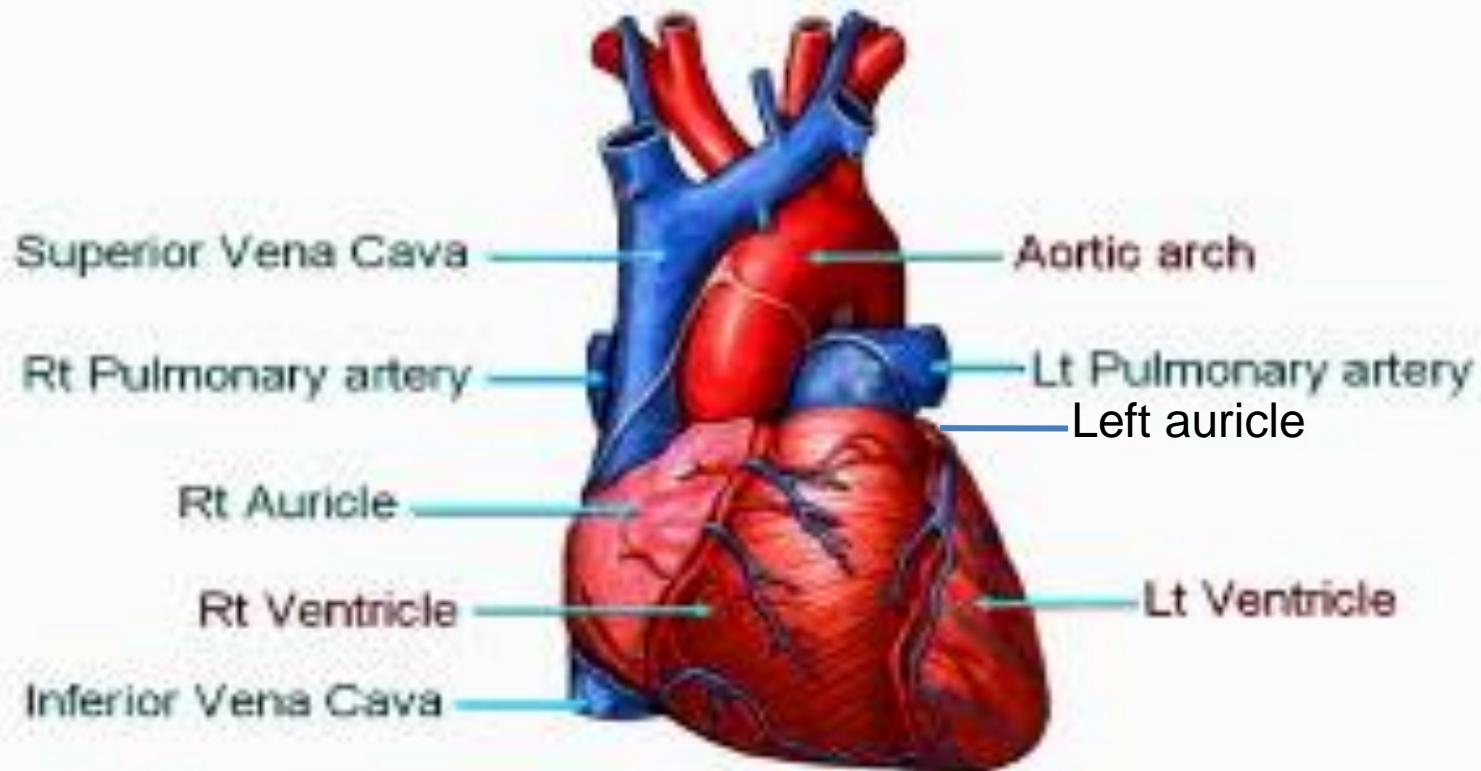
## Toad Heart Ventral View



## Fowl Heart Ventral View

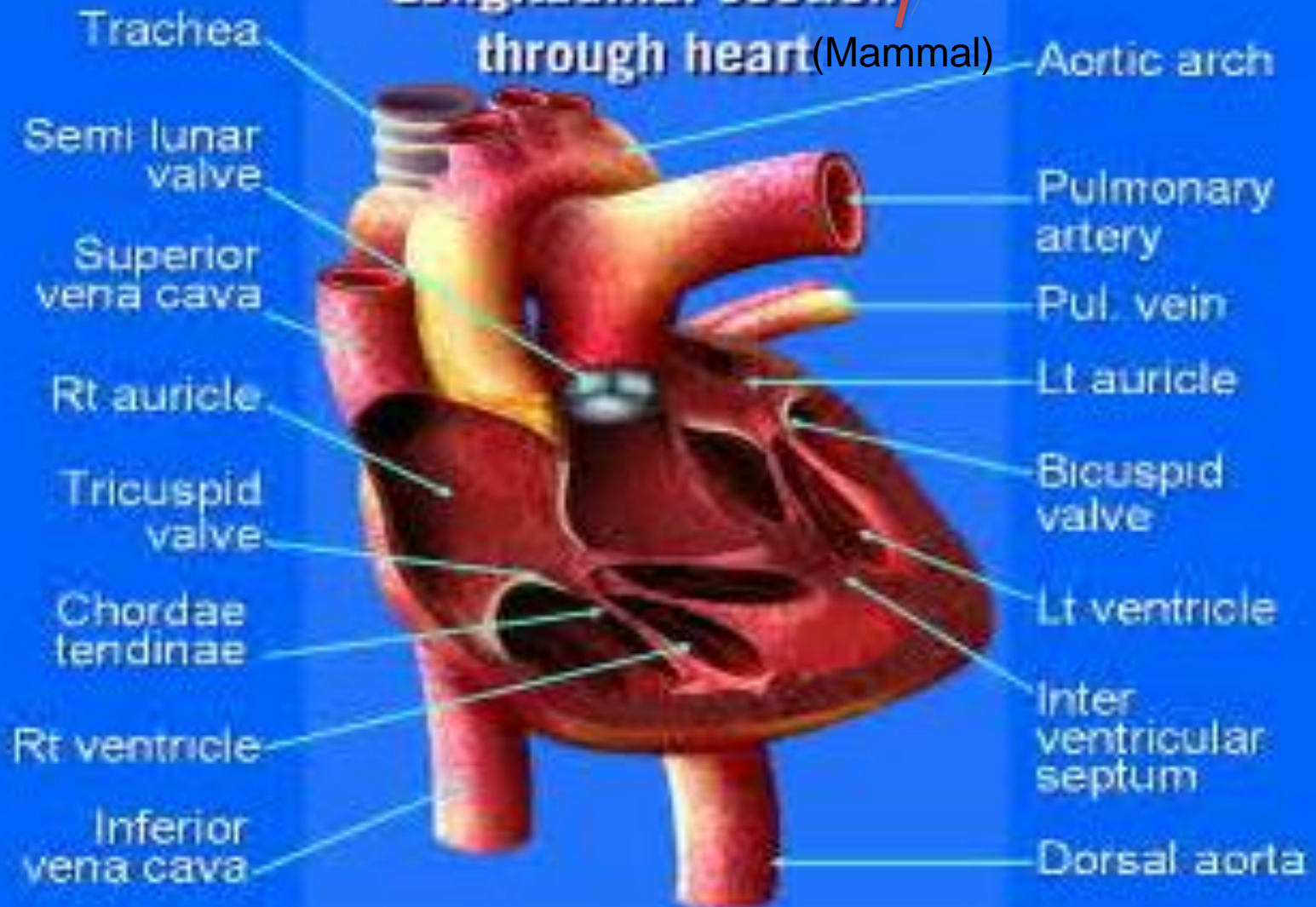


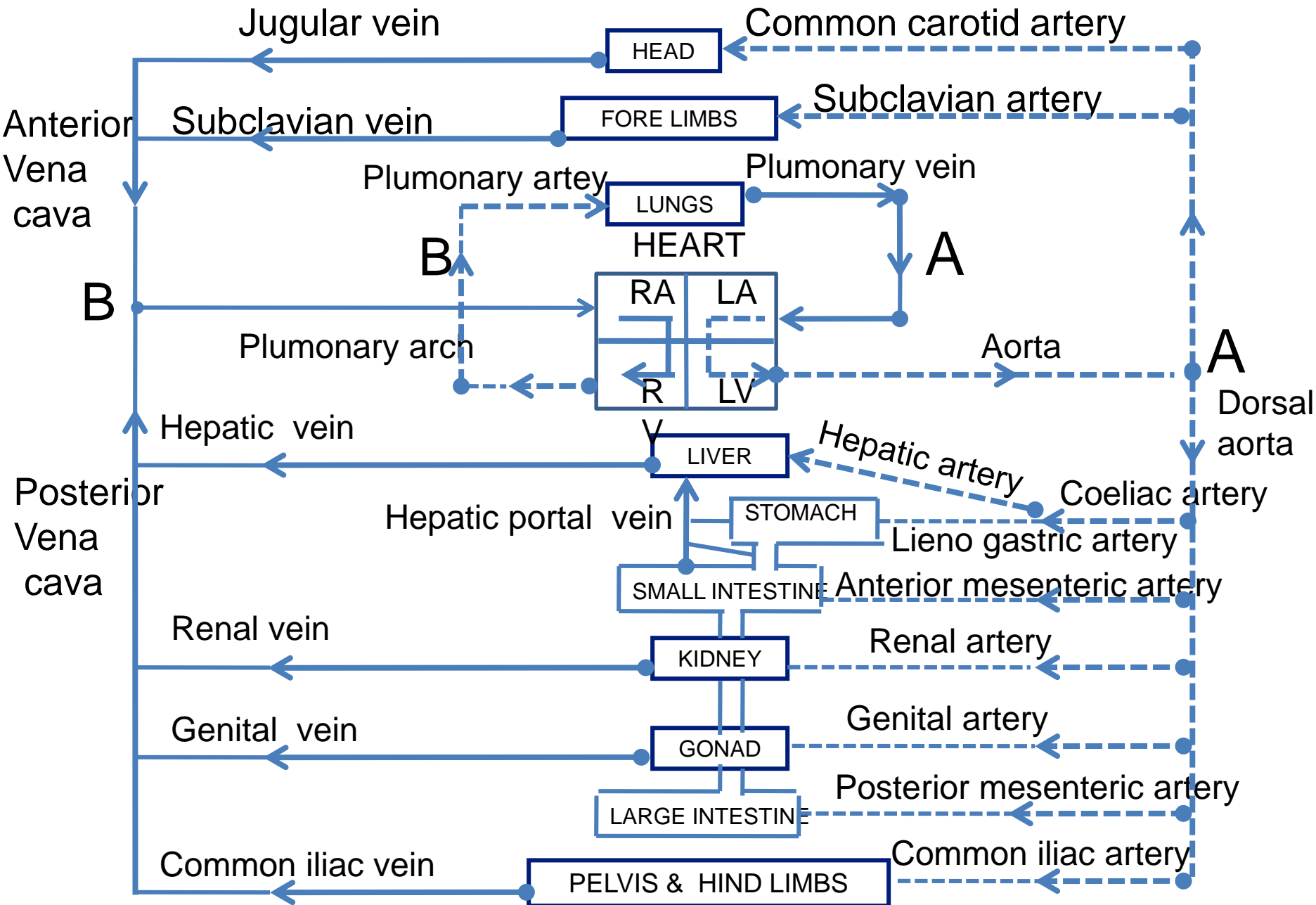
## Mammalian Heart Ventral View





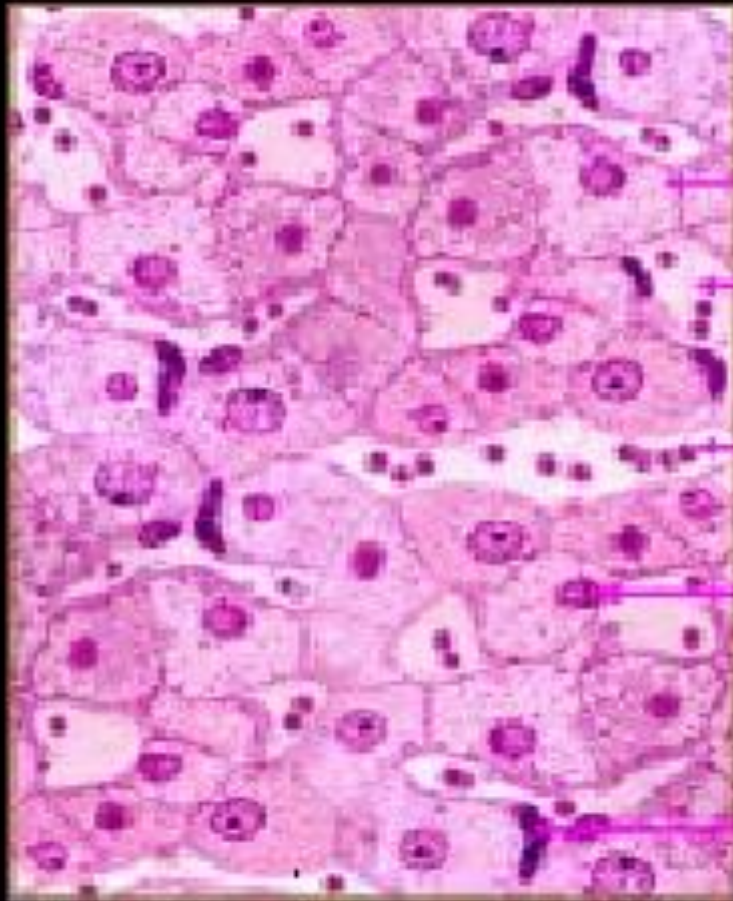
## Longitudinal section / Mammalian heart (Mammal)







# Liver tissue



Liver cell

Sinusoid

Blood cell

Nucleus

Kupffer cell

# Pancreas



Pancreatic  
cell

Connective tissue

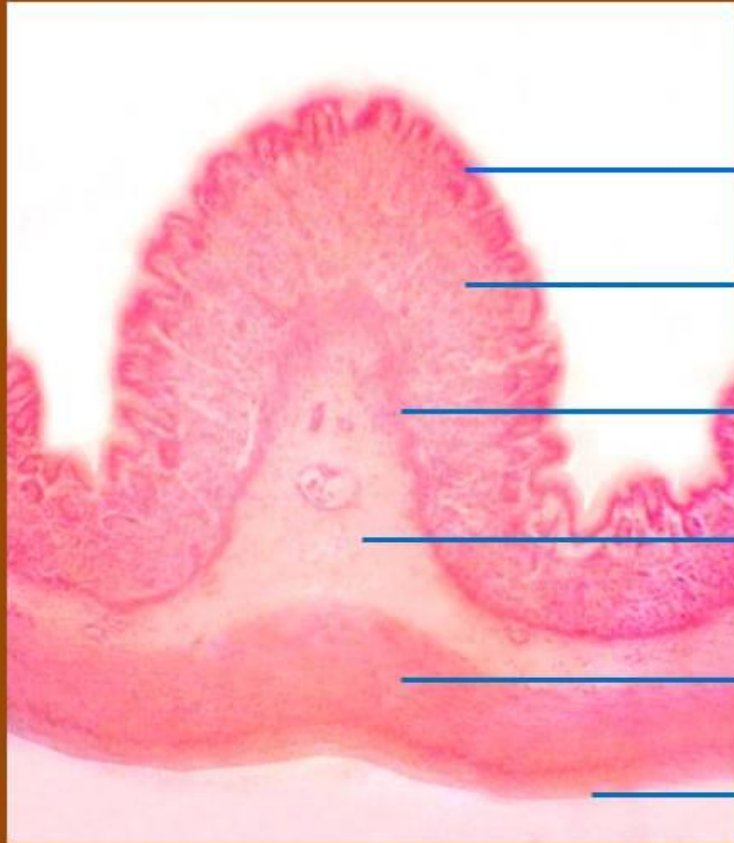
Nucleus

Blood cell

Islet of langerhans

Acini (lobule)

## Cardiac stomach (frog)



Epithelium of mucosa

Lamina propria

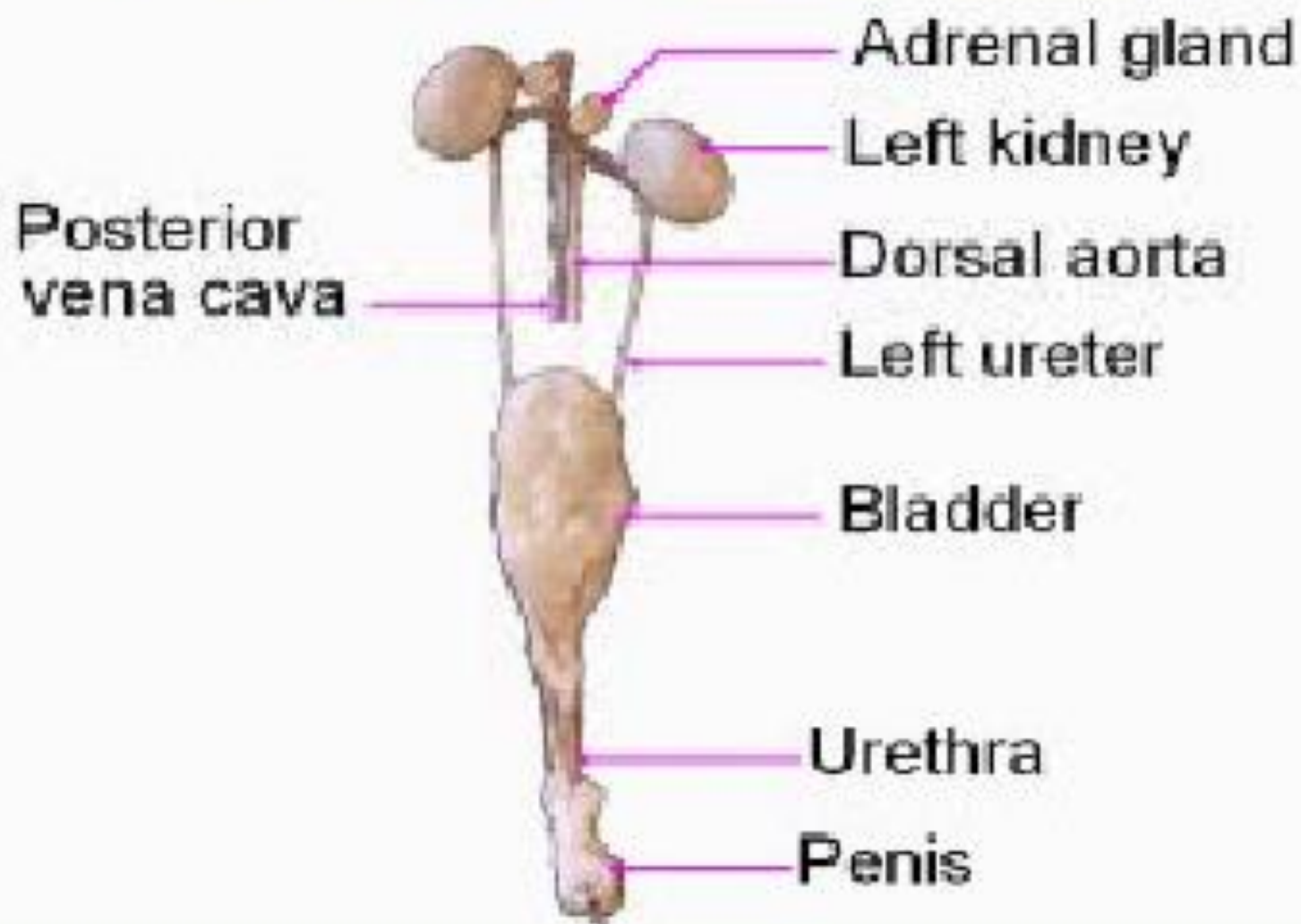
Muscularis mucosae

Submucosa

Muscularis externa

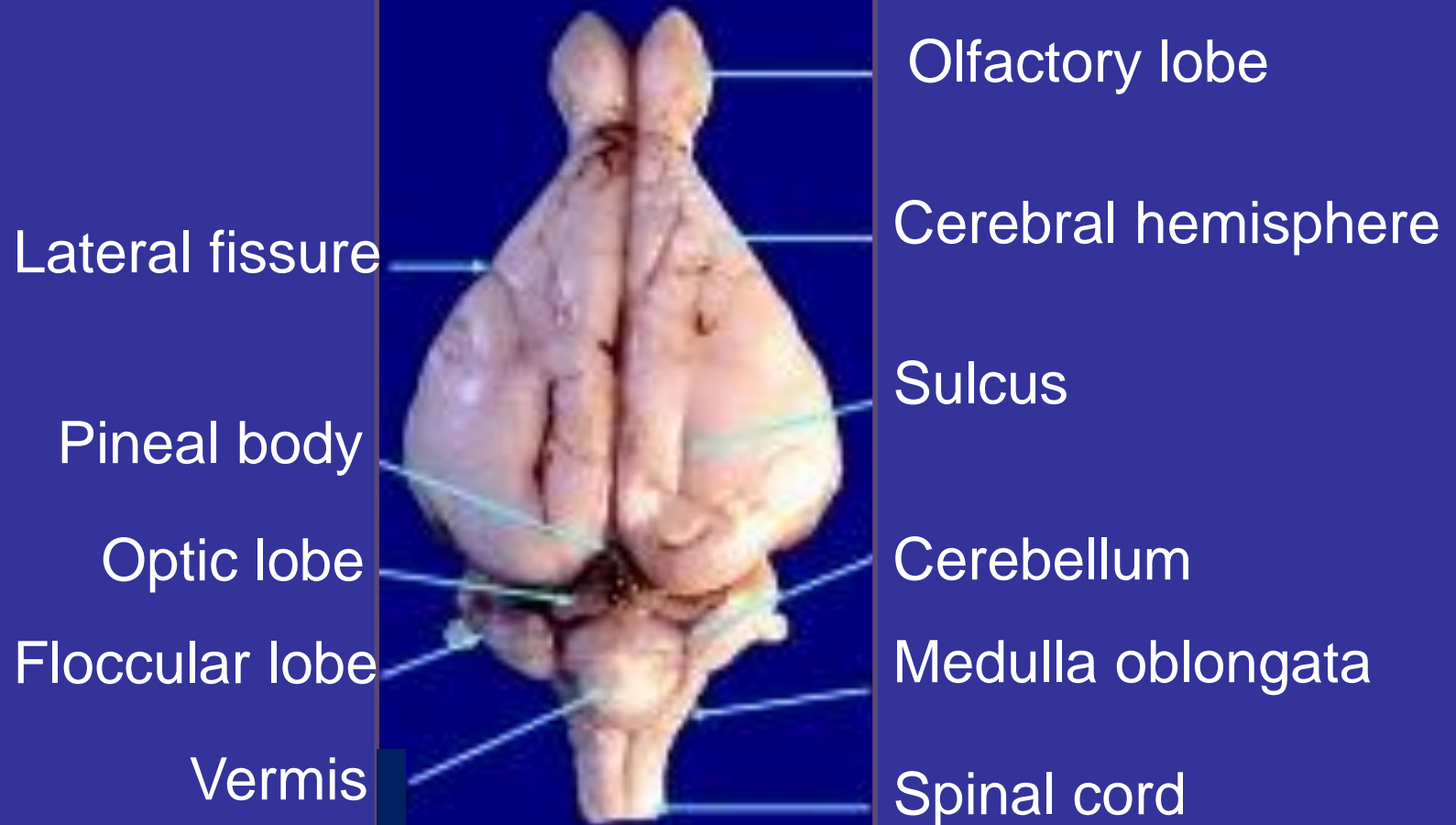
Serosa

## Excretory System of Rabbit

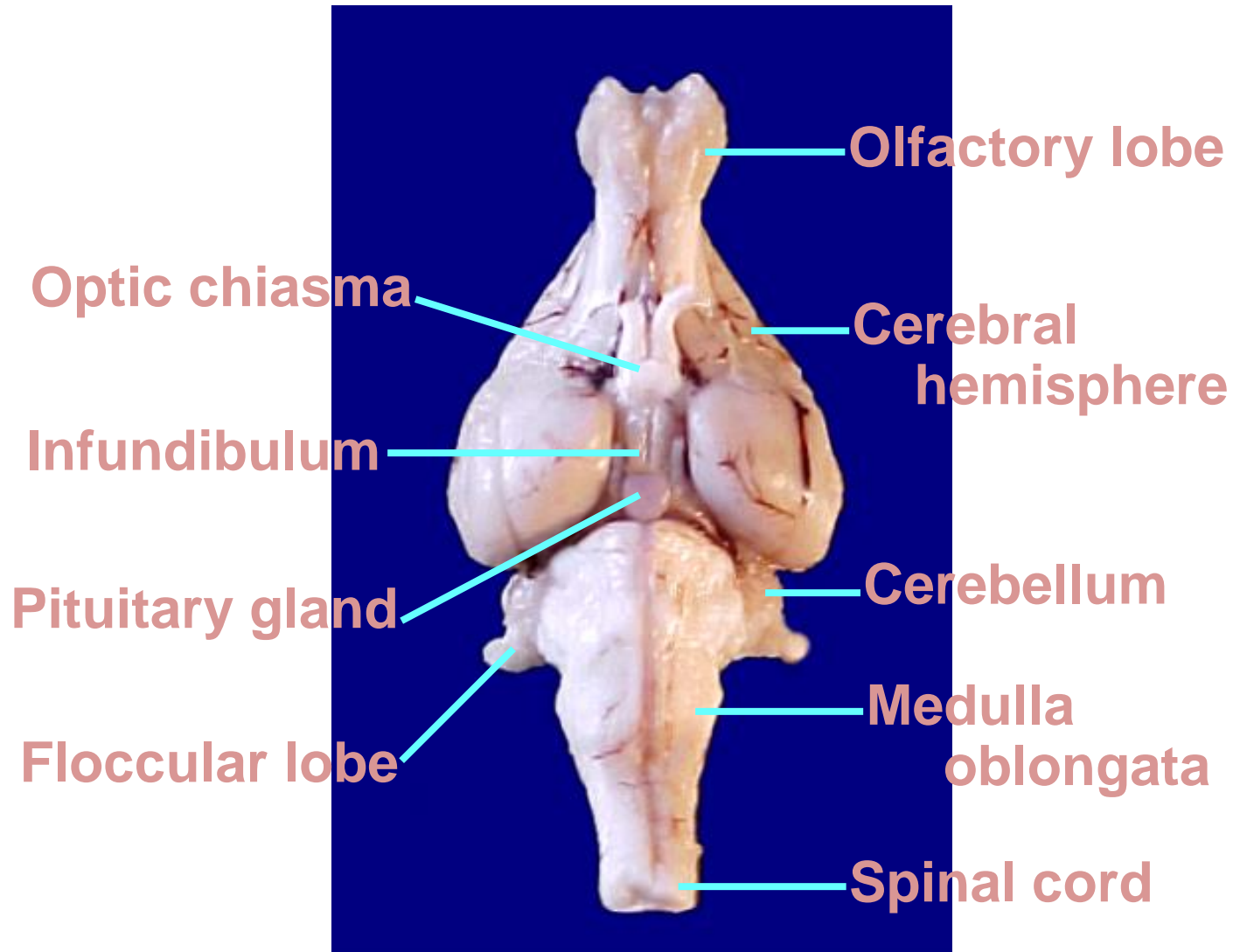




# Brain of rabbit (dorsal view)

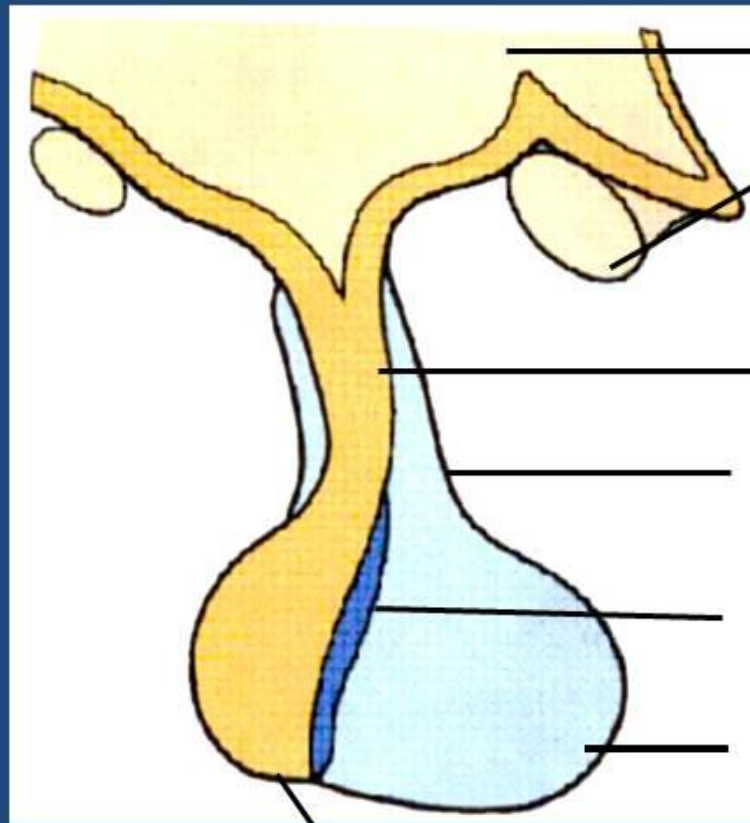


# Rabbit Brain Ventral View





# Pituitary



Hypothalamus

Optic chiasma

Infundibulum

Pars tuberalis

Pars intermedia

Pars distalis

Adenohypophysis

Neurohypophysis

Thank You