

Phylum

# Chordata

3 Subphyla 'URO-CEPHALO-VERT'

Subphylum **Urochordata**

Subphylum **Cephalochordata**

Subphylum **Vertebrata**



## Larva

Has all 4 Chordate characteristics



## Adult

Has only 1 Chordate characteristic:

Pharyngeal gill bars have become a filter feeding basket

Subphylum

## Urochordata

Subphylum

## **Urochordata**

Tunicate

tadpole

larvae

Note 4 chordate characteristics:

- 1. Dorsal hollow nerve cord**
- 2. Notochord**
- 3. Pharyngeal gill slits or bars**
- 4. Post-anal tail (A)**

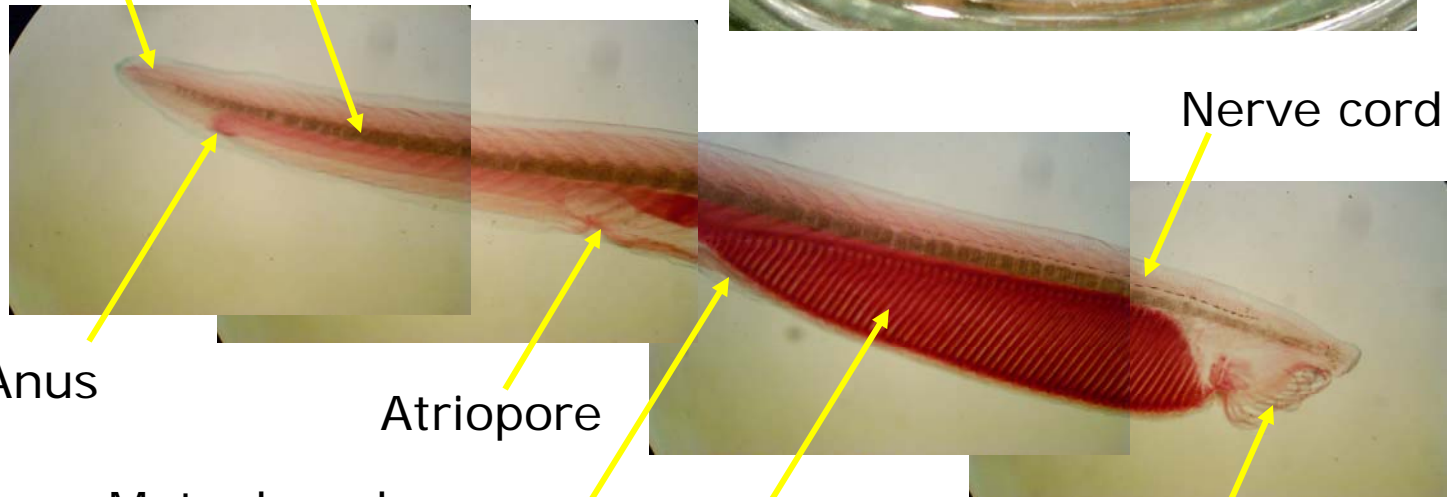


Subphylum  
**Cephalochordata**



Post anal tail

Notochord



Anus

Atriopore

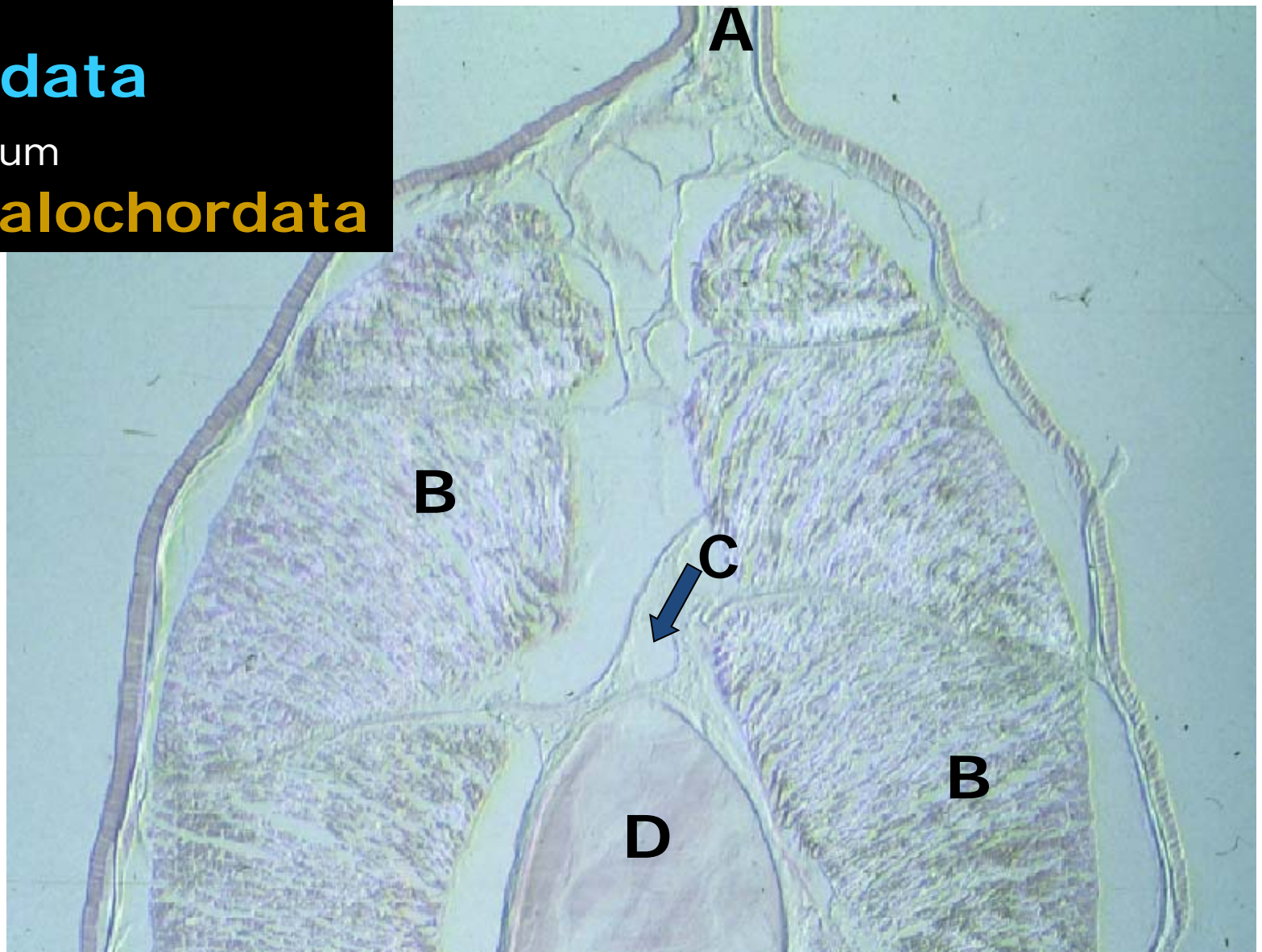
Nerve cord

Metapleural  
Folds, not very  
visible except in  
cross sections

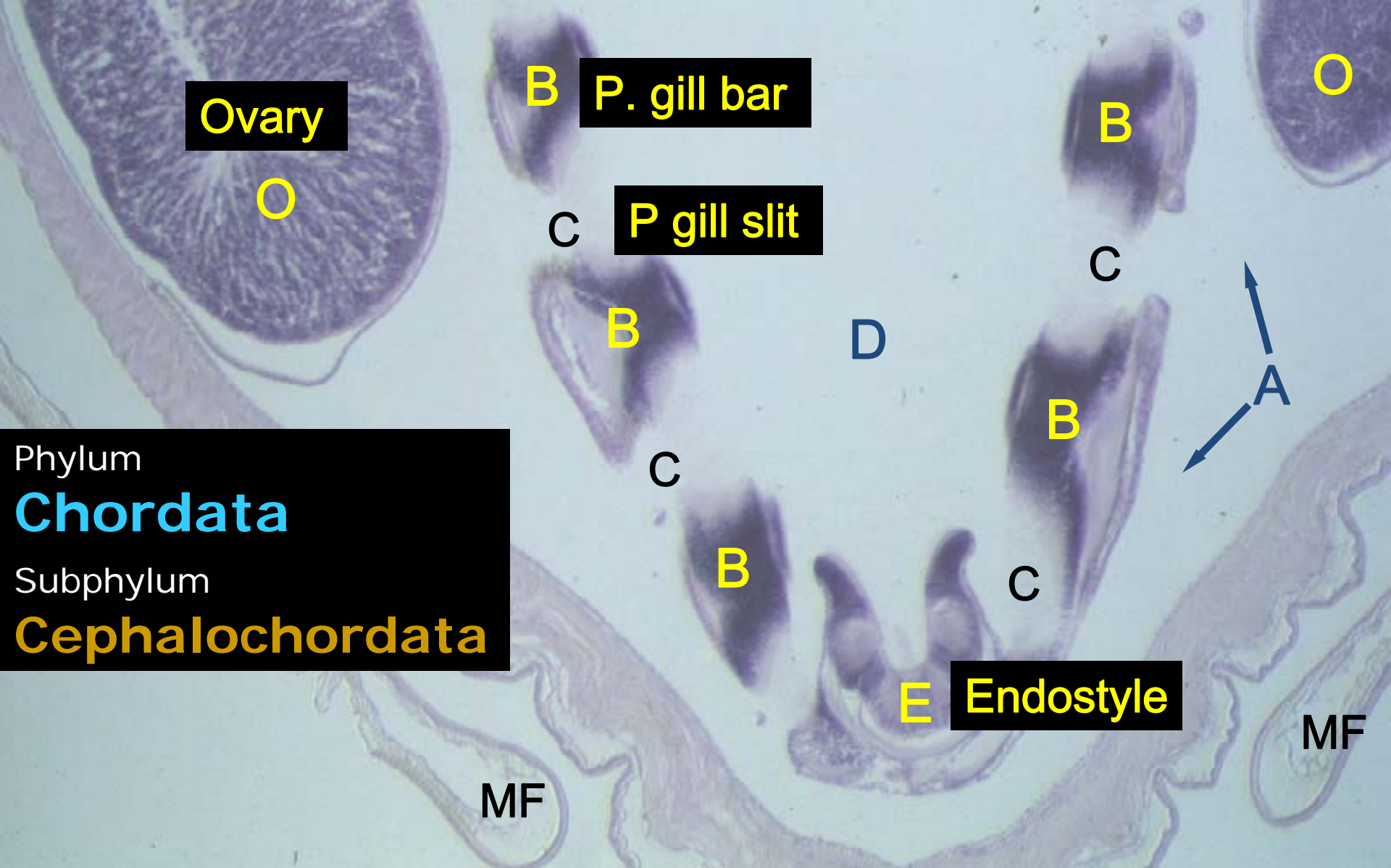
Pharyngeal gill  
bars & slits

Cirri

Phylum  
**Chordata**  
Subphylum  
**Cephalochordata**



Dorsal region Note: fin ray (A), myomeres (B), dorsal hollow nerve cord (nerve tube) (C), notochord (D)



Ovary

B P. gill bar

C P gill slit

B

O

O

C

D

B

B

A

C

B

C

E Endostyle

MF

MF

Phylum  
**Chordata**  
Subphylum  
**Cephalochordata**

Anterior region Note: (D) pharynx, (E) endostyle – (produces mucus to help catch food in between the gill bars - Yummy!) (MF) - Meta pleural folds (A) atrium

# Phylum

# Chordata

Subphylum **Vertebrata** (ACOARM)

6 Classes -

Agnatha

Hagfish & Lampreys

Chondrichthyes

Sharks

Osteichthyes

Bony fish

Amphibia

Frogs & Salamanders

Reptilia

Lepidosauria (non-avian reptiles) = lizards, snakes

Testudines turtles

Archosauria birds, & crocodilians (gators & crocs)

Mammalia

Your lab partner!

# Phylum **Chordata**

Subphylum **Vertebrata**

## TYPES of SKELETON

**Cartilaginous Skeleton** (2 classes)

Agnatha

Chondrichthyes

**Bony Skeleton** 'RAMO' (4 classes)

Reptilia = Lepidosa<sup>u</sup>ria, Testudines & Archosa<sup>u</sup>ria

Amphibia

Mammalia

Osteichthyes



# Phylum **Chordata**

Subphylum **Vertebrata**

## NUMBER OF HEART CHAMBERS

**2**

Agnatha  
Chondrichthyes  
Osteichthyes

**3**

Amphibia

Lepidosauria & Testudines

**4**

Archosauria

Mammalia

Reptilia is split



# Phylum **Chordata**

Subphylum **Vertebrata**

**WHO HAS AN AMNIOTIC EGG?**

**Amniotes – 'RM'**

**R**eptilia    Lepidosauria,  
                  Testudines  
                  Archosauria

**M**ammalia

# Phylum **Chordata**

## Subphylum **Vertebrata**

Always take the shortest route...  
If you can't remember all the  
classes that are ectothermic...  
just remember the animals that  
are not!

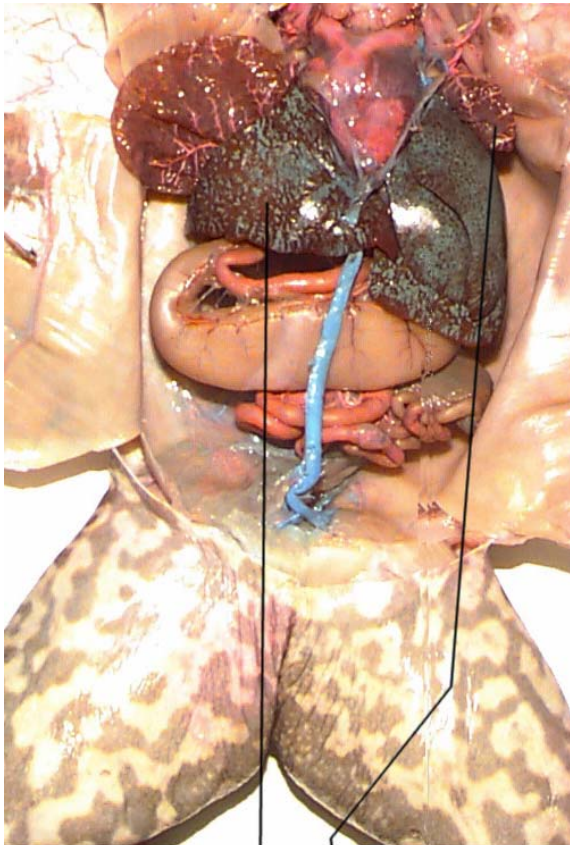
### **Endothermic**

Birds

Mammals

**Endothermy** – ability to maintain body  
temperature by internal metabolic processes





**Don't forget the  
dissections.....  
and all those special little structures**