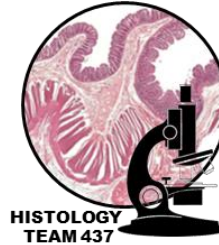




MED437
KING SAUD UNIVERSITY

OSPE file

Neuropsychiatry block



HISTOLOGY
TEAM 437

- : Pink: questions
- | red: very important
- : Black: complete answers
- | Gray: notes | extra

➤ You should know before the exam:

- The exam will consist of **2 stations**.
- The pictures in these slides may not be the **same** in the exam.
- You have to mention the full name always and **don't use shortcuts** you could lose marks because of that.



Unipolar/Pseudo-unipolar Neuron

Q1: Identify the structure (type of the neuron)?

Unipolar/Pseudo-unipolar Neuron

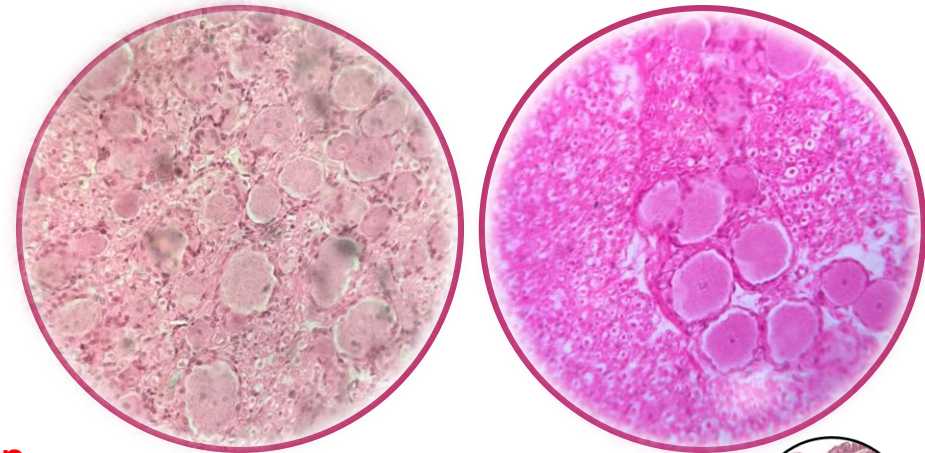
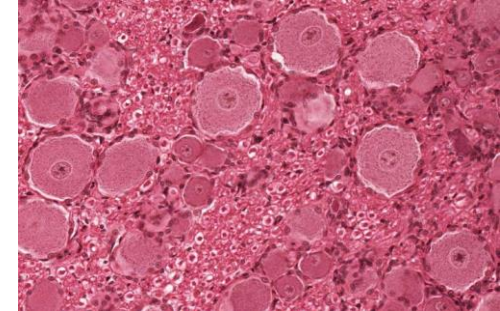
Q2: Where is the structure located?

- **Dorsal root ganglion**
- **Mesencephalic nucleus of the trigeminal nerve**

Q3: What are the components that form this structure?

- **Nucleus**
- **Nucleolus**
- **Nissl bodies**
- **Mitochondria**
- **Cell body**

***When the question only Identify you should write the location**



Multipolar Stellate Neuron

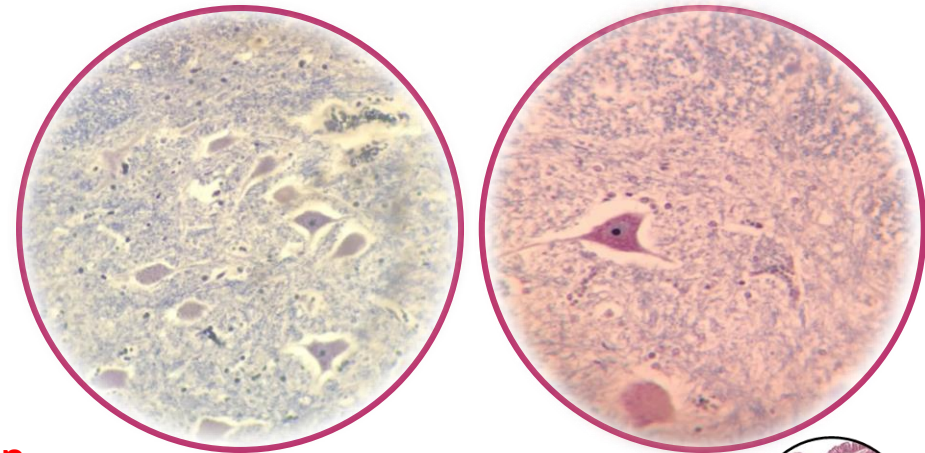
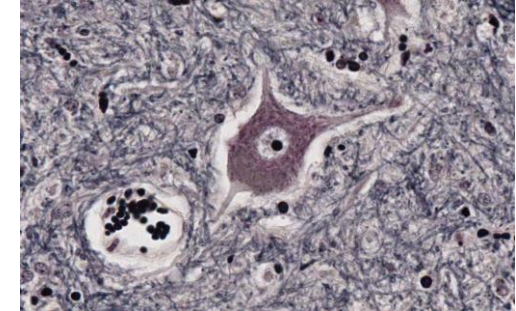
Q1: Identify the structure (type of the neuron)?
Multipolar Stellate Neuron

Q2: Where is the structure located?

- Anterior horn of the spinal cord

Q3: What are the components that form this structure?

- Nucleus
- Nucleolus
- Nissl bodies
- Mitochondria



***When the question only Identify you should write the location**

Multipolar Pyramidal Neuron

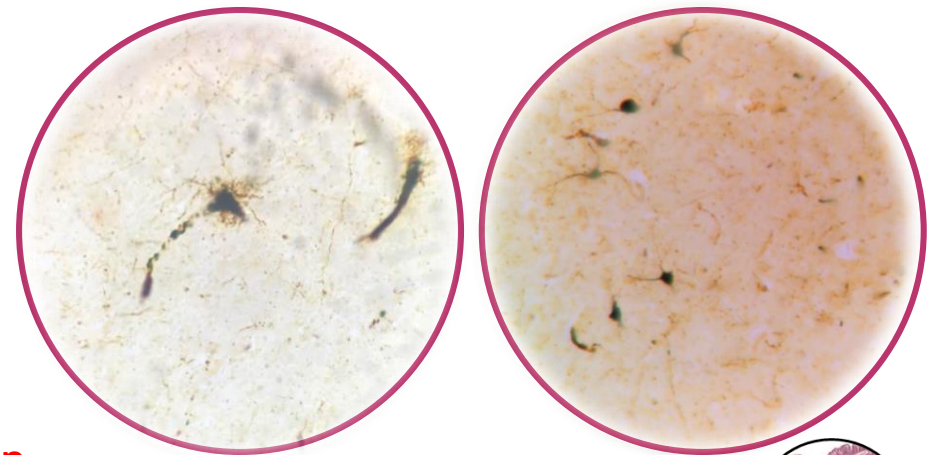
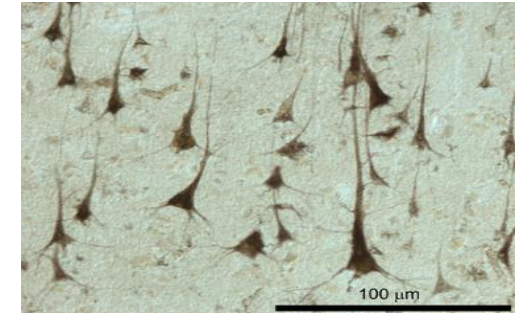
Q1: Identify the structure (type of the neuron)?
Multipolar Pyramidal Neuron

Q2: Where is the structure located?

- Motor area 4 of the cerebral cortex

Q3: What are the components that form this structure?

- Nucleus
- Nucleolus
- Nissl bodies
- Mitochondria



***When the question only Identify you should write the location**

Multipolar Pyriform Neurons

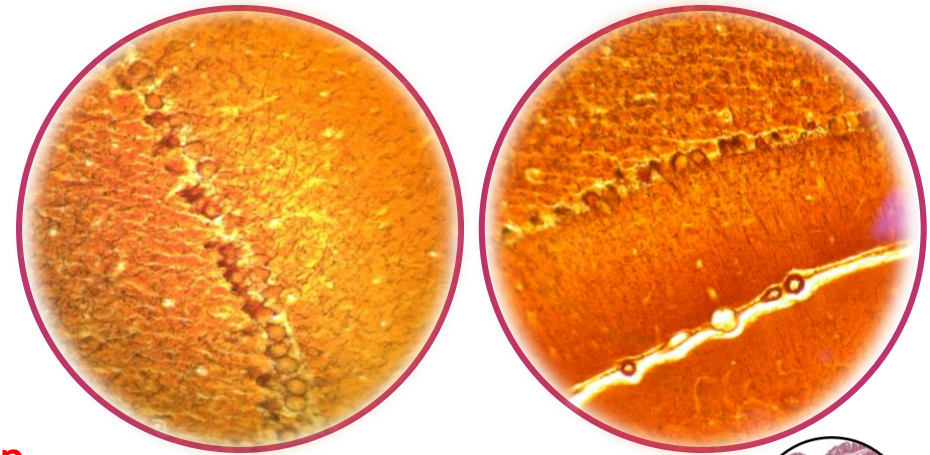
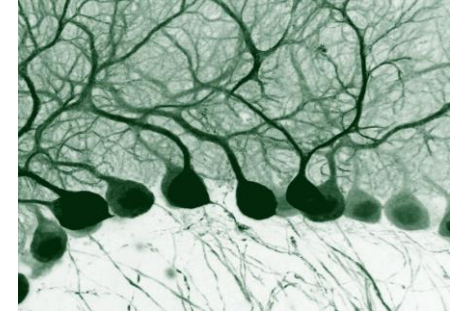
Q1: Identify the structure (type of the neuron)?
Multipolar Pyriform Neurons

Q2: Where is the structure located?

- Purkinje cells of cerebellum

Q3: What are the components that form this structure?

- Purkinje cells with nucleus
- Purkinje cells with nucleolus
- Dendrites of Purkinje cells
- Nissl bodies
- Mitochondria



***When the question only Identify you should write the location**

*Microscopic pictures here not important because its not clear

Cervical Spinal Cord

The spinal cord sections won't be under the microscope, it will be as seen here

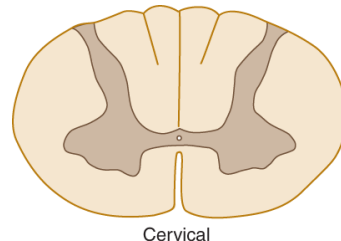
Q1: Identify the structure?
Cervical level of Spinal Cord

Q2: Identify labeling:

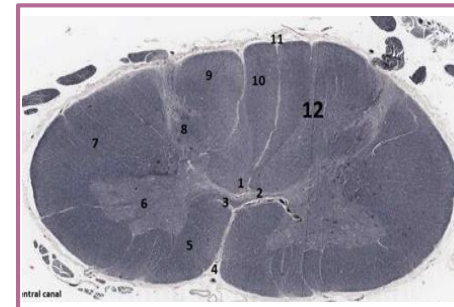
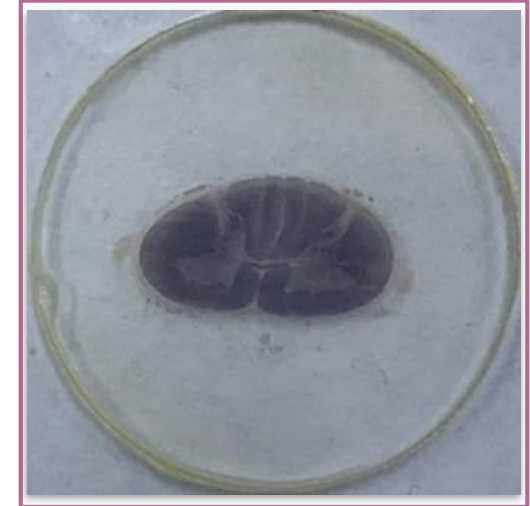
- | | |
|-----------------------------|--------------------------|
| 1- Central canal | 7- Lateral white column |
| 2- Grey commissure | 8- Dorsal grey horn |
| 3- Ventral white commissure | 9- Cuneate tract |
| 4- Ventral median fissure | 10- Gracile tract |
| 5- Ventral white column | 11- Dorsal median sulcus |
| 6- Ventral grey horn | 12- Dorsal white column |

Q3: What is the features of the structure?

- Oval in shape
- Wide ventral horn*
- Thin dorsal horn
- **Not contain lateral horn**
- **Contain both cuneate tract and gracile tract**



Cervical



*Because of brachial plexus

Thoracic Spinal Cord

The spinal cord sections won't be under the microscope, it will be as seen here

Q1: Identify the structure?

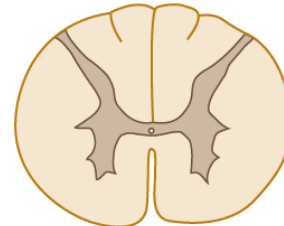
Thoracic level of Spinal Cord

Q2: Identify labeling:

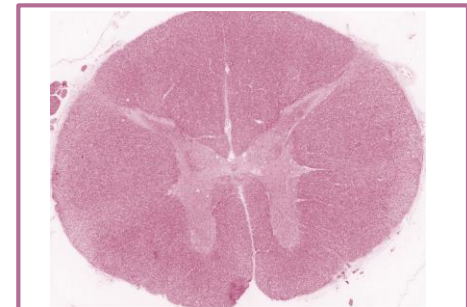
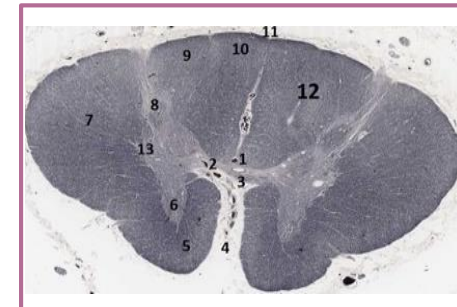
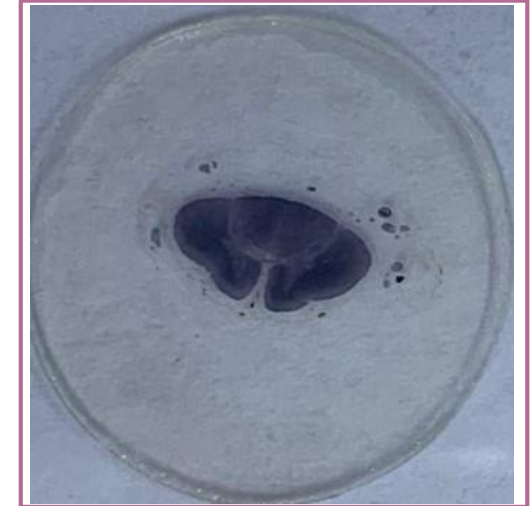
- | | |
|-----------------------------|--------------------------|
| 1- Central canal | 8- Dorsal grey horn |
| 2- Grey commissure | 9- Cuneate tract |
| 3- Ventral white commissure | 10- Gracile tract |
| 4- Ventral median fissure | 11- Dorsal median sulcus |
| 5- Ventral white column | 12- Dorsal white column |
| 6- Ventral grey horn | 13- Lateral grey horn |
| 7- Lateral white column | |

Q3: What is the features of the structure?

- Thin ventral horn
- Thin Dorsal horn
- **It contain lateral horn**



Thoracic



Lumbar Spinal Cord

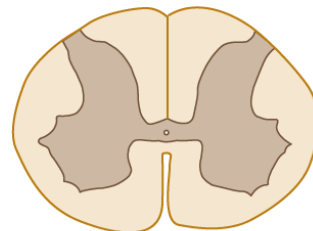
Q1: Identify the structure?
Lumbar level of Spinal Cord

Q2: Identify labeling:

- | | |
|-----------------------------|------------------------------|
| 1- Central canal | 8- Dorsal grey horn |
| 2- Grey commissure | 9- (not found at this level) |
| 3- Ventral white commissure | 10- Gracile tract |
| 4- Ventral median fissure | 11- Dorsal median sulcus |
| 5- Ventral white column | 12- Dorsal white column |
| 6- Ventral grey horn | 13- Lateral grey horn |
| 7- Lateral white column | |

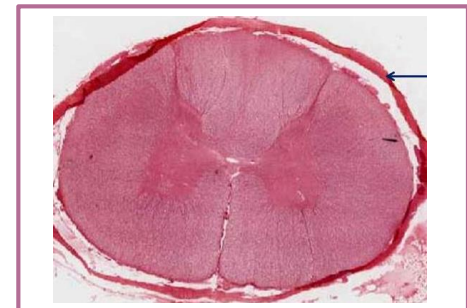
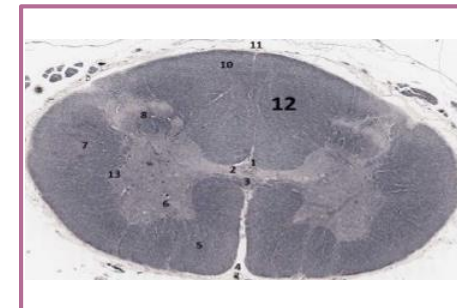
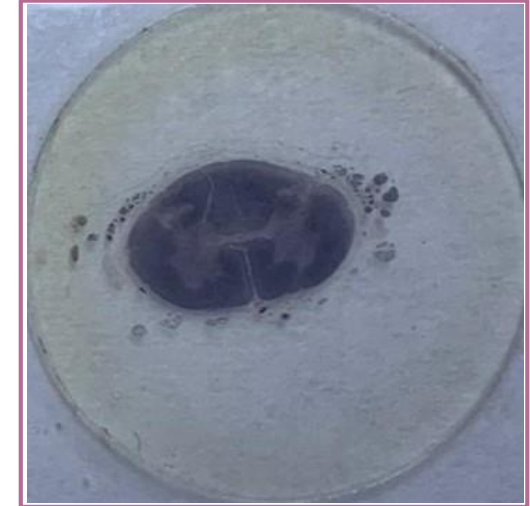
Q3: What is the features of the structure?

- Wide ventral horn
- Wide Dorsal horn
- **Not contain Cuneate tract**



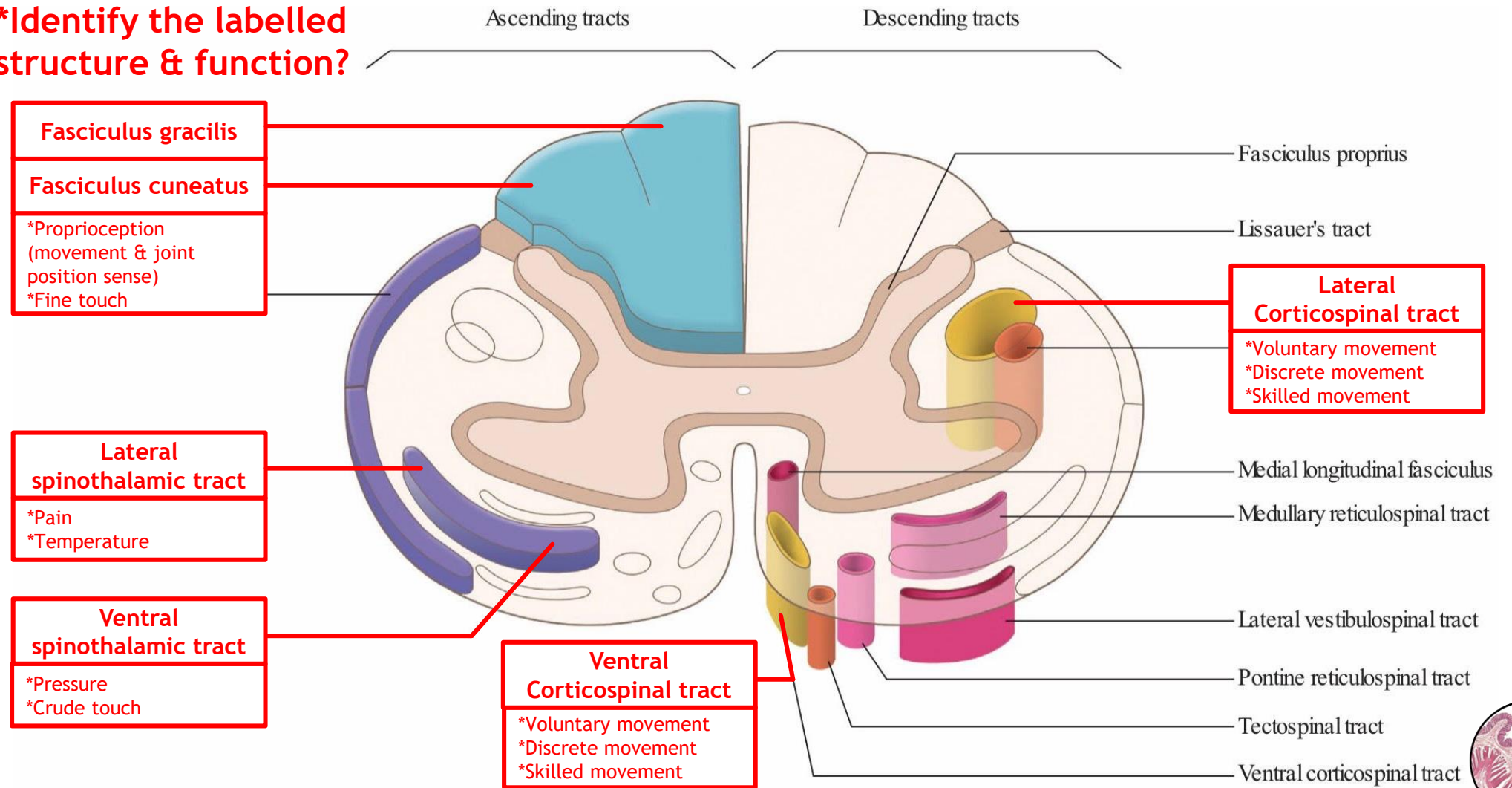
Lumbar

The spinal cord sections won't be under the microscope, it will be as seen here



Ascending & Descending Tracts

***Identify the labelled structure & function?**



“YOU BECOME WHAT YOU BELIEVE”

Team leaders:

Khalid Fayez Alshehri
Rawan Mohammad Alharbi

Microscopic pictures taken by:

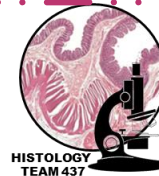
Abdurhman Alhayssoni
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