

# Practical Cytology

Lab2:

## Cells Shapes

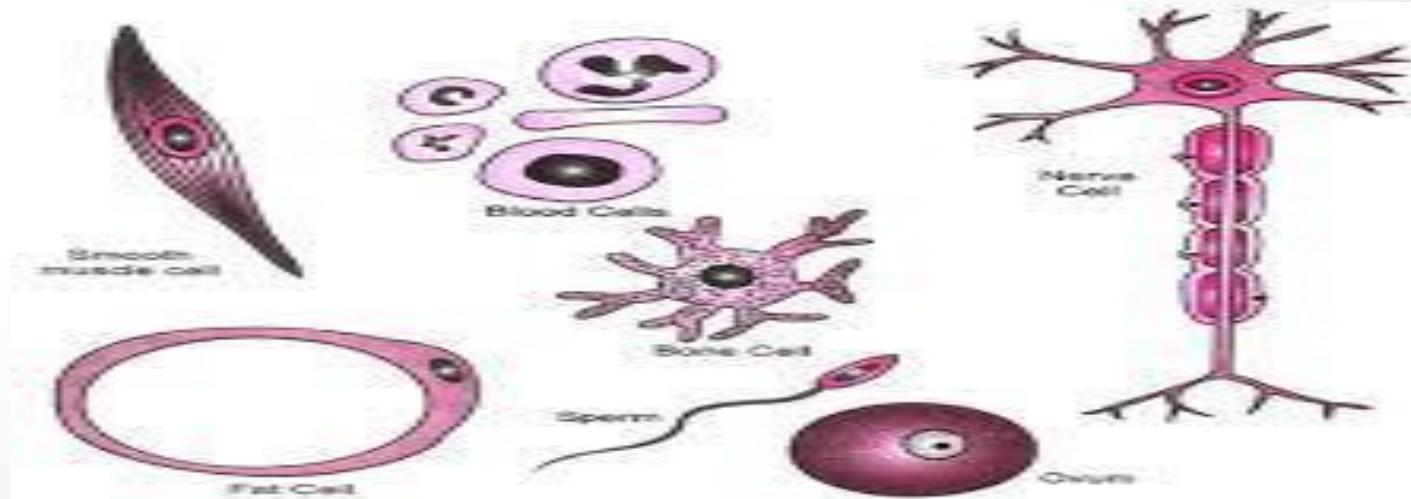
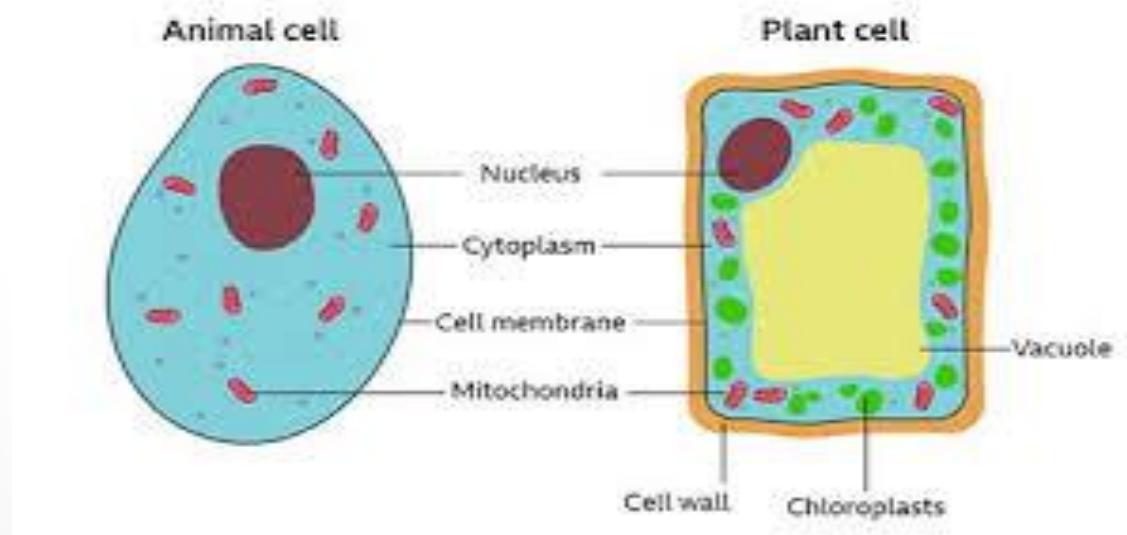


Figure : VARIOUS CELLS FROM THE HUMAN BODY

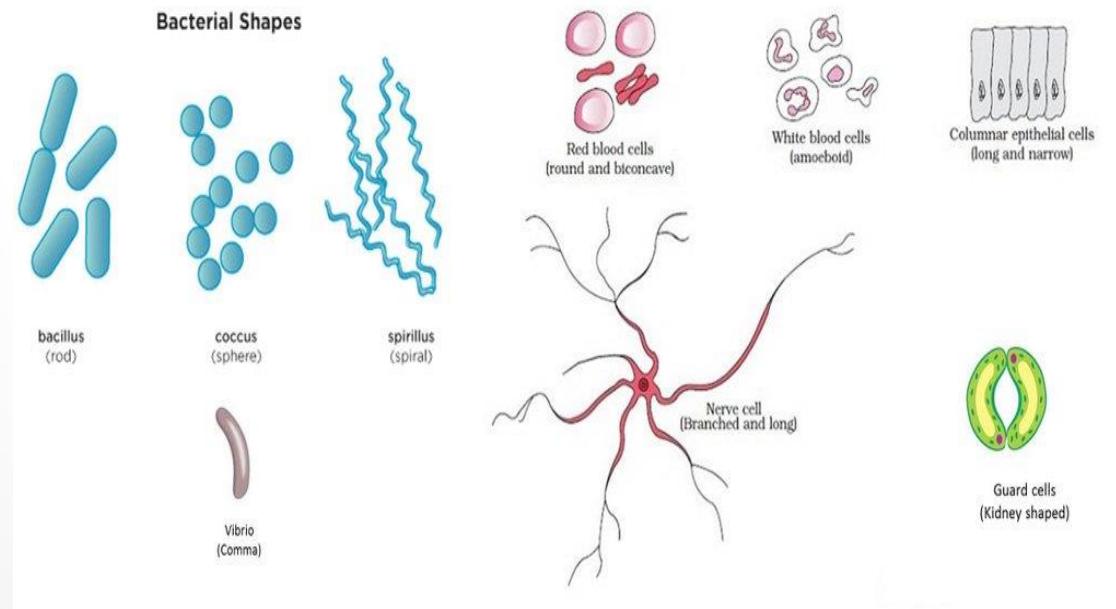
**Cells** -:are the building blocks of life – all living organisms are made up of them.

- ❖ **Animal cells** in particular come in all kinds of shapes and sizes.
- ❖ **Plant cell** shapes tend to be quite similar to each other **because of their rigid cell wall**.



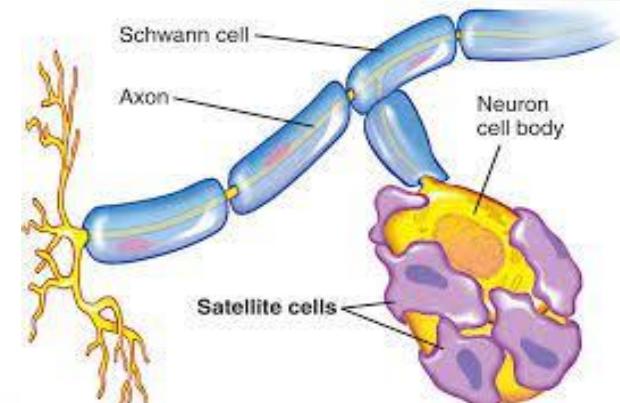
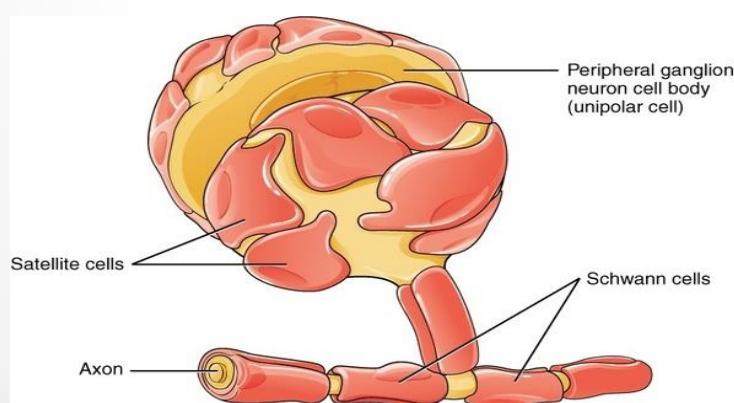
# Shape for the cells (function)

- Cells have different shapes because they do different things.
- Each cell type has its own role to play in helping our bodies to work properly, and their shapes help them carry out these roles effectively.



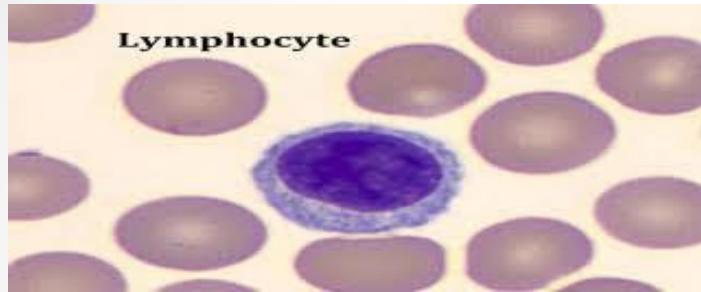
# 1- Satellite shape:

- **Neurons** are cells in the brain and nervous system. Their job is to carry electrical messages all the way from the brain to the rest of the body and back (almost like electrical wires)
- they are very **long , thin** cells , they also need to connect with other neurons to form **communication networks**, so they have many long branches .



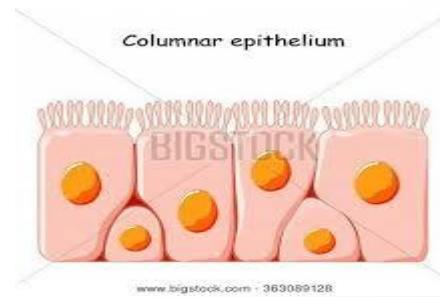
## 2-Spheroid shape:

Cells are Spheroids such as lymphocytes and tomato cells



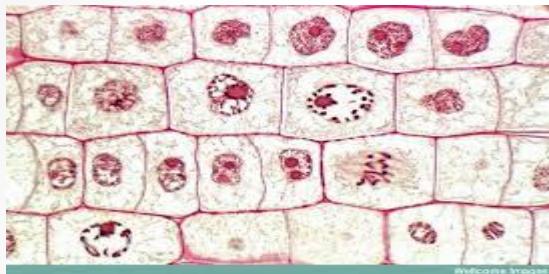
## 3-Columnar shape:

Cells are tall and narrow giving a column like appearance in columnar epithelial tissue such as stomach, small intestine, large intestine, rectum, fallopian tubes.

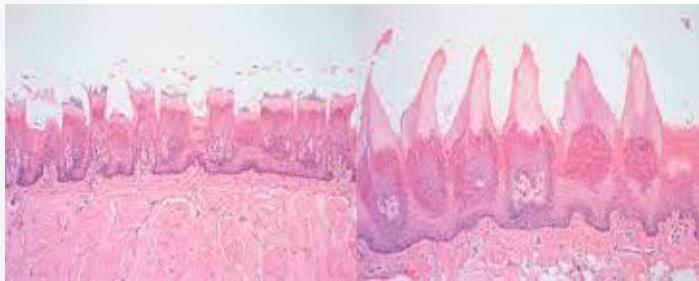


#### **4-Cubic shape:**

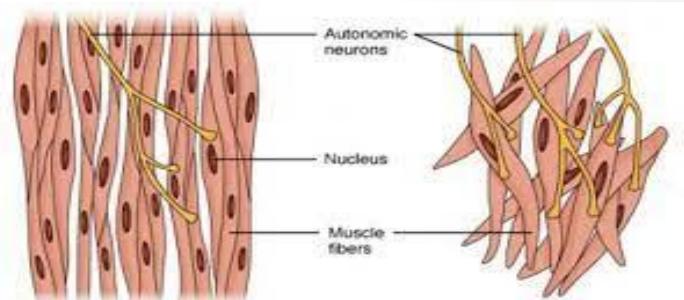
in cuboidal epithelial tissue and meristematic region in Allium cepa root tip



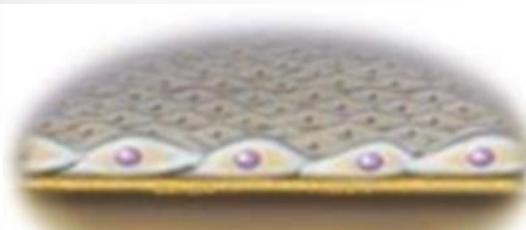
#### **5-Filiform shape:** in striated muscles and also in Olea leaf fibers



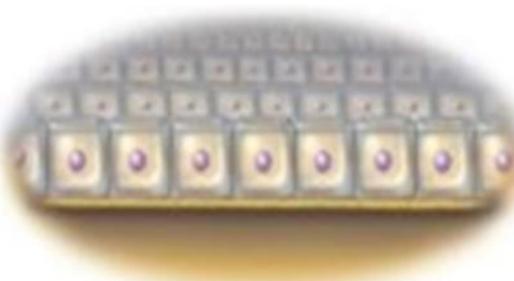
#### **6- Spindle shape:** in smooth muscle.



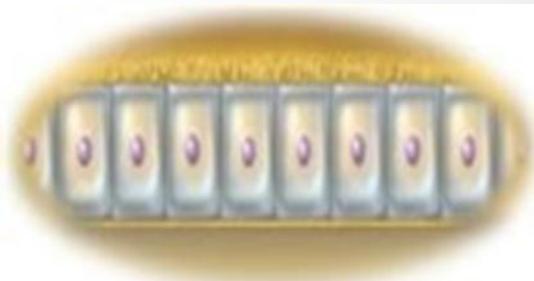
## Different shapes of animal cells



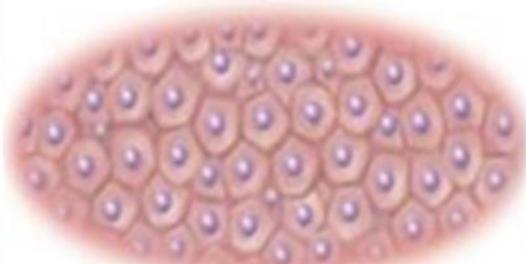
**Squamous**



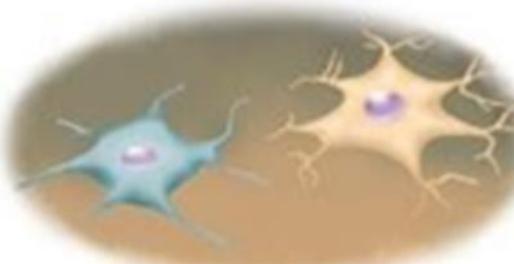
**Cuboidal**



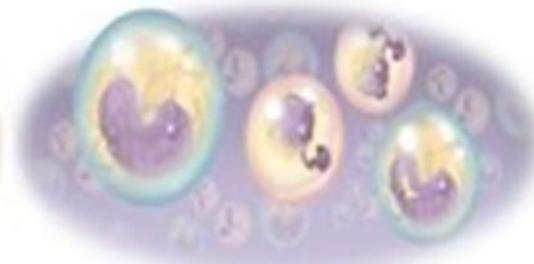
**Columnar**



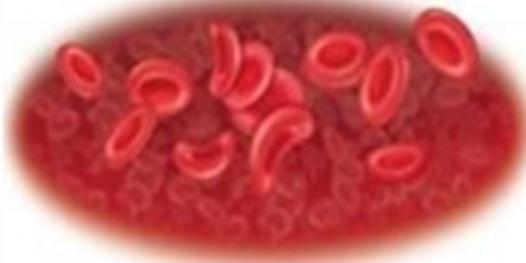
**Polygonal**



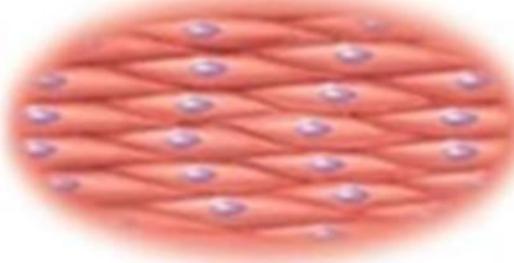
**Satellite**



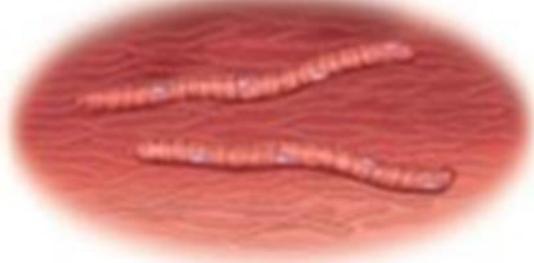
**Spheroid**



**Discoid**



**Fusiform (spindle-)**



**Fibrous**

# THANK YOU

