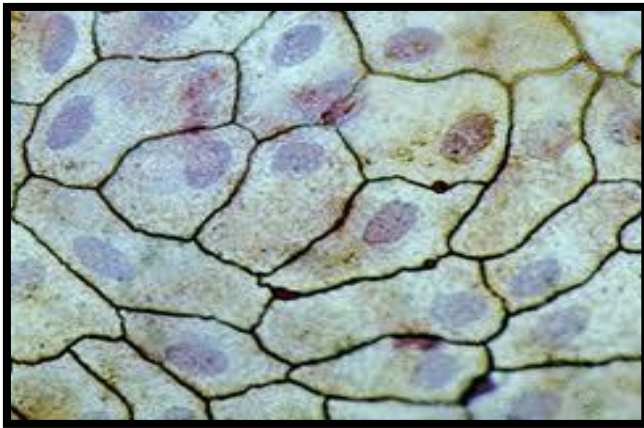


Lab: 3

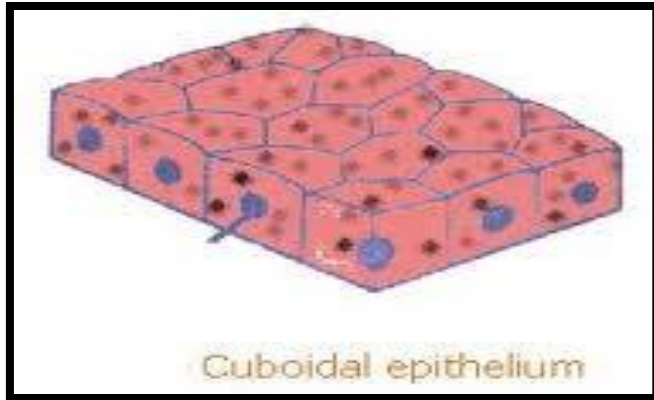
Cell shape

Animal cells come in many different shapes and sizes. The shapes of cells have evolved to help them carry out their specific function in the body, so looking at a cell's shape can give clues about what it does.

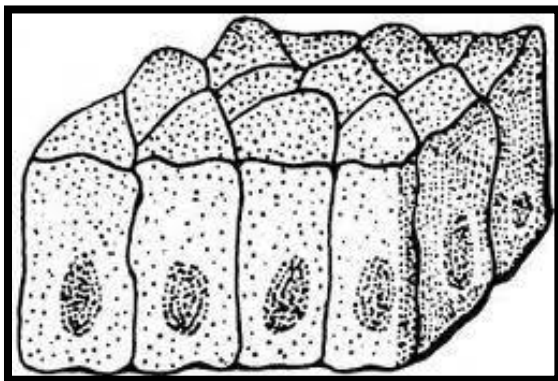
1-Squamous shape / Irregular cells have the appearance of thin, flat plates. Squamous cells tend to have horizontal flattened small nuclei because of the thin flattened form of the cell. They form the lining of cavities such as blood vessels, also line the serous cavities of the body (peritoneum, pleura, pericardium) which known as Mesothelia and Squamous epithelial tissue in Skin , mouth.



2- Cuboidal shape / Cuboidal cells are roughly square or cuboidal in shape. Each cell has a spherical nucleus in the center. Cuboidal epithelium line many small ducts in the body. Examples include the urinary ducts of the kidney, the bile ductules of the liver, or the cells lining thyroid follicles & pancreas].



3- Columnar shape / is similar to Cuboidal epithelium except that the cell are taller elongated and rectangular-shaped. The nuclei are elongated and are usually located near the base of the cells. It either ciliated or non ciliated. Non ciliated columnar epithelium forms the lining of the stomach and gall bladder while Ciliated epithelium is usually found in the small intestine. and in Trachea .



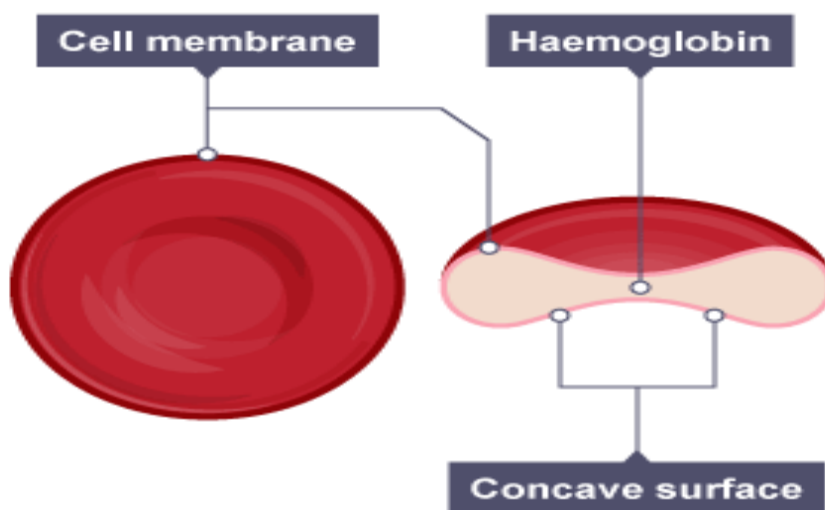
4- Spindle cell / the cell elongated spindle shaped with pointed end. [ex. Smooth muscle]



5- Stellate (Asteriodal shape) ex 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 wire), so they are very long, thin cells have many long branches.

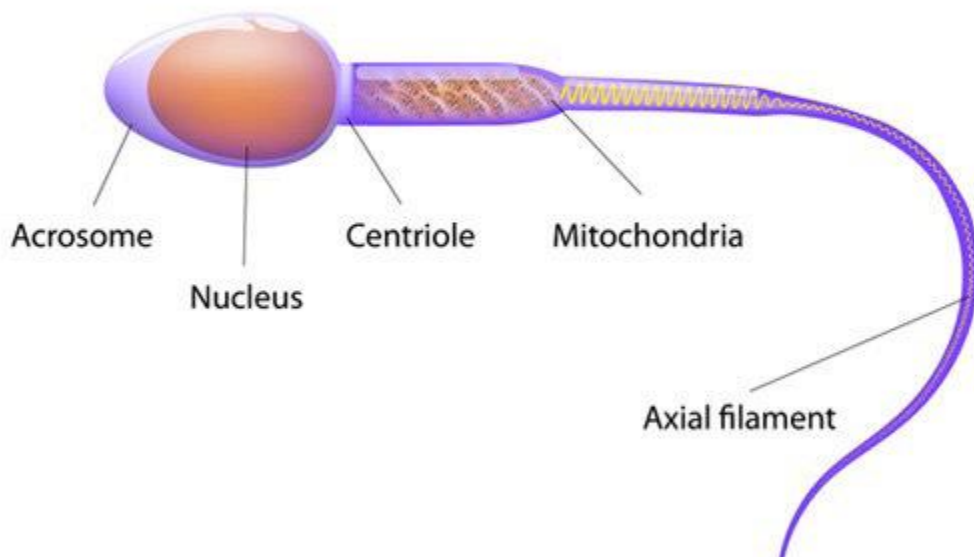


6- Circular (Discoid shape) The red blood cells have a disk shape with concave edges, and have hemoglobin molecule that attach with O₂ and CO₂ molecules, this concave edges contribute to the transfer and carry these molecules between lung and other body system.

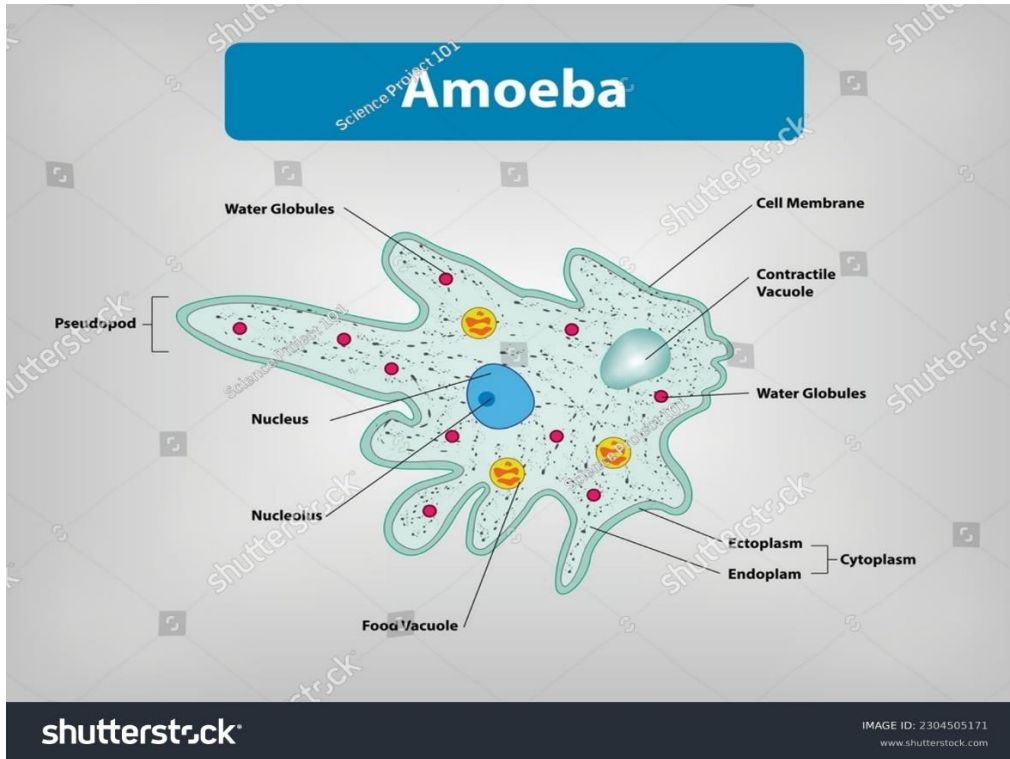


7- Sperm shape a normal sperm will have an oval –shaped head an n intact midpiece and an uncoiled single tail sperm with normal morphology are able to swim well and in a straight line. [ex. Rabbit sperm]

SPERM CELL



8- Amoeboid shape the shape of amoeba appears to be irregular unlike other organisms it does not have definite shape it keeps on changing its shape due to formation of pseudopodia [ex. Amoeba]



9- The photoreceptor cells (rods and cones) are cells in the eye that detect light.

