

## Blood platelets:

- It is protoplasmic disks that are found in Mammalian blood. (Lower vertebrates have spindle-shaped cells named Thrombocytes). It is pale & homogeneous on the peripheral part.
- The shape is oval to round, often stellate.
- It's Non-nucleated, very small ( $2-4\mu$ ) diameter & smaller than RBC (Erythrocytes)
- Platelets are arises as a detached tips of protoplasmic processes extending from the Cytoplasm of Giant cells Megakaryocytes, of Red bone marrow.
- The number is about 200000 - 400000 per Cubic mm.
- The life span of platelets is about 3-5 days
- Each platelets produces Thromboplastin, which starts the Coagulation of blood.

Function: Agglutinated platelets are associated with Blood clotting / coagulation/ clumping both inside and outside of Brs. (Blood vessel)

## W Function of the Blood.

- The Blood is responsible to carry many important functions
- Blood carries Digested food molecules to different parts of body.
- It carries hormones & vitamins.
- Carries O<sub>2</sub> gas — Blood carries O<sub>2</sub> gas in the form of Oxyhaemoglobin to tissues & release this  $\frac{O_2}{CO_2}$  there to be used for the Oxidation of Glucose.
- Transport CO<sub>2</sub> gas — CO<sub>2</sub> gas is formed due to oxidation of Glucose in the cells. This CO<sub>2</sub> gas combines with Hb to form HbCO<sub>2</sub> (Carboxyhaemoglobin), which on reaching lungs is separated from Haemoglobin & expelled out with Expiration. Thus blood helps in expelling CO<sub>2</sub> gas from the body.
- Blood carries Excretory products, like Urea to the kidney from where it is expelled out with urine.

- Destruction of Bacteria - The Leucocyte, kill Bacteria & other harmful substances.
- Blood helps to Cure a disease, when some toxins are found in a disease, blood forms Antitoxin & thus help to recover the patient.
- Temperature Control - The temperature released by Liver & muscles is carried by blood to different parts of body so that the uniform temperature is maintained by throughout the body.
- Heals Wounds - The substances required to heal a wound is supplied by the blood to the healing place.
- Clotting - When a Bus. is Cut, blood comes out but it stops after sometimes due to formation of a clot. Thus blood checks outflow of blood due to a cut on the body.
- Immunity - The blood is protective in nature. immunity means ~~resistance~~ resistance of our body to any disease.
- Maintenance of water contents of the tissue - The blood maintains a constant interchange of the fluid across the wall of the blood capillaries.

END