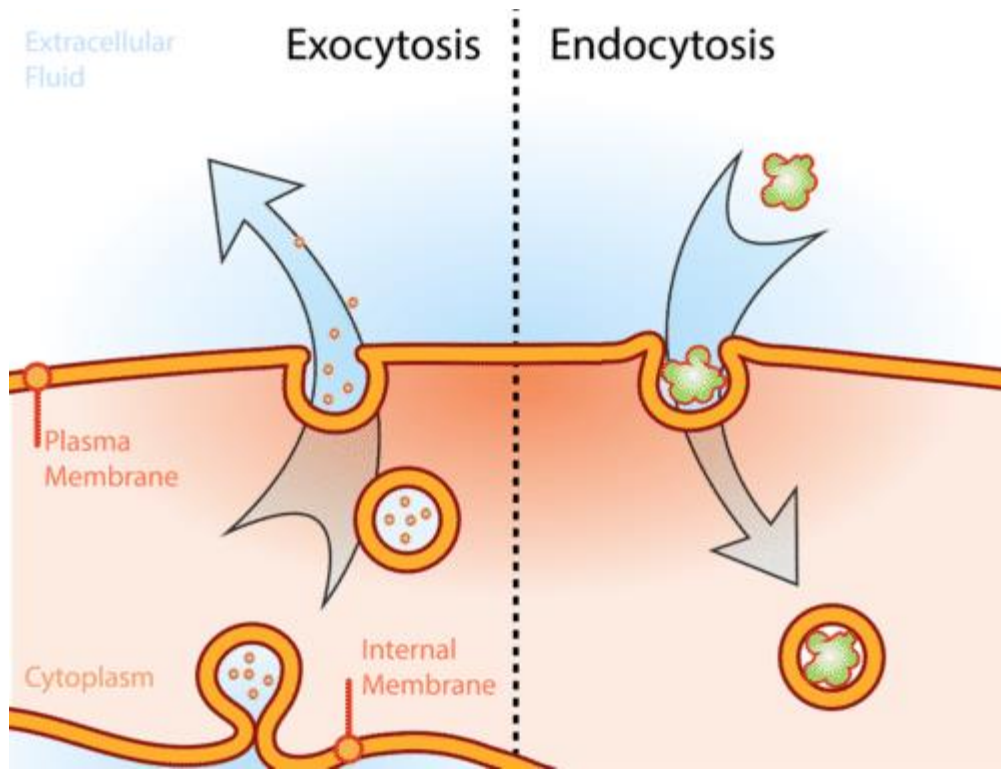
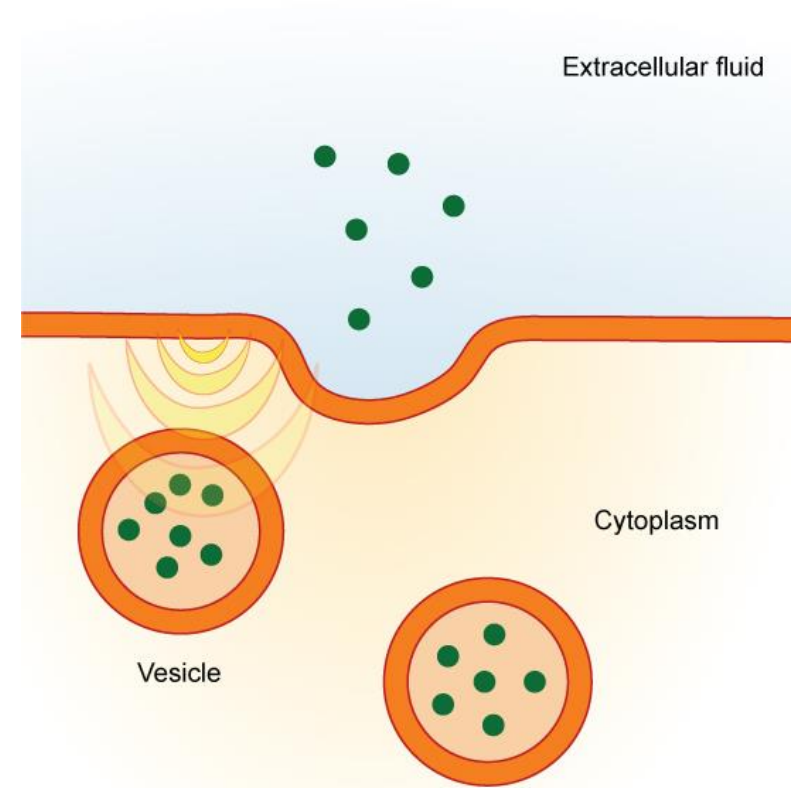


# Plasma Membrane

(Exocytosis and Endocytosis)



Exocytosis



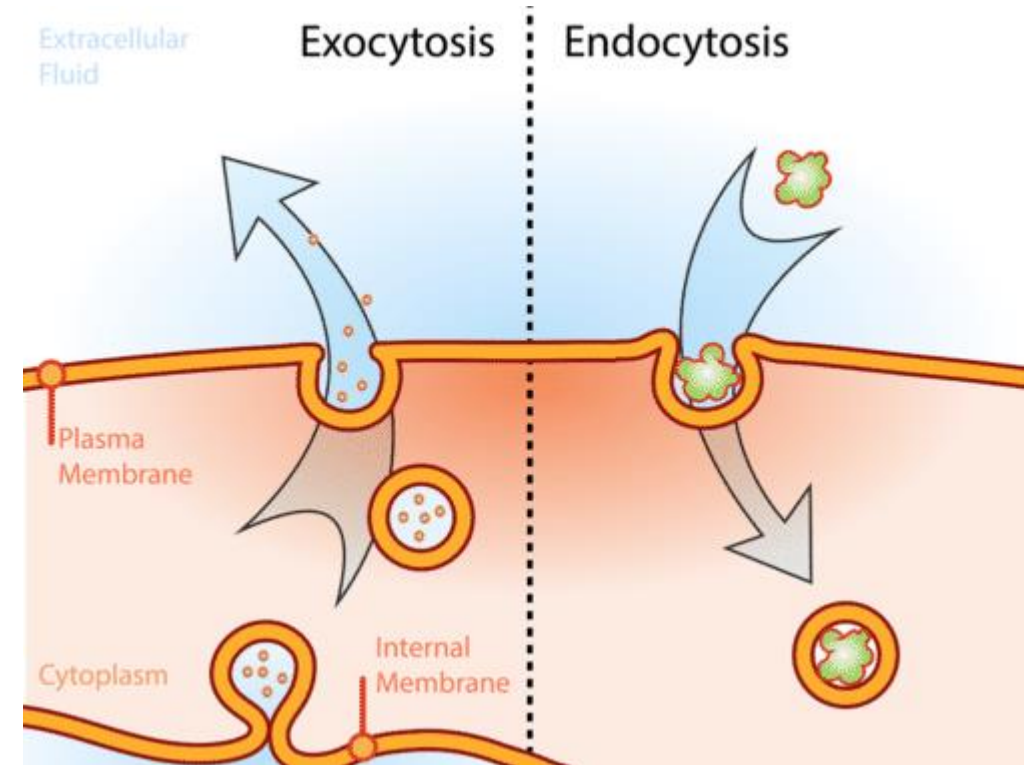
**Dr. Rupesh B. Yadav**

Asst. Prof.

TC College, Baramati.

# Endocytosis and Exocytosis

- **Endocytosis** is the process of **capturing a substance** or particle from **outside** the cell by engulfing it with the cell membrane, and bringing it into the cell. **Exocytosis** describes the **process of vesicles fusing with the plasma membrane** and releasing their contents to the outside of the cell.

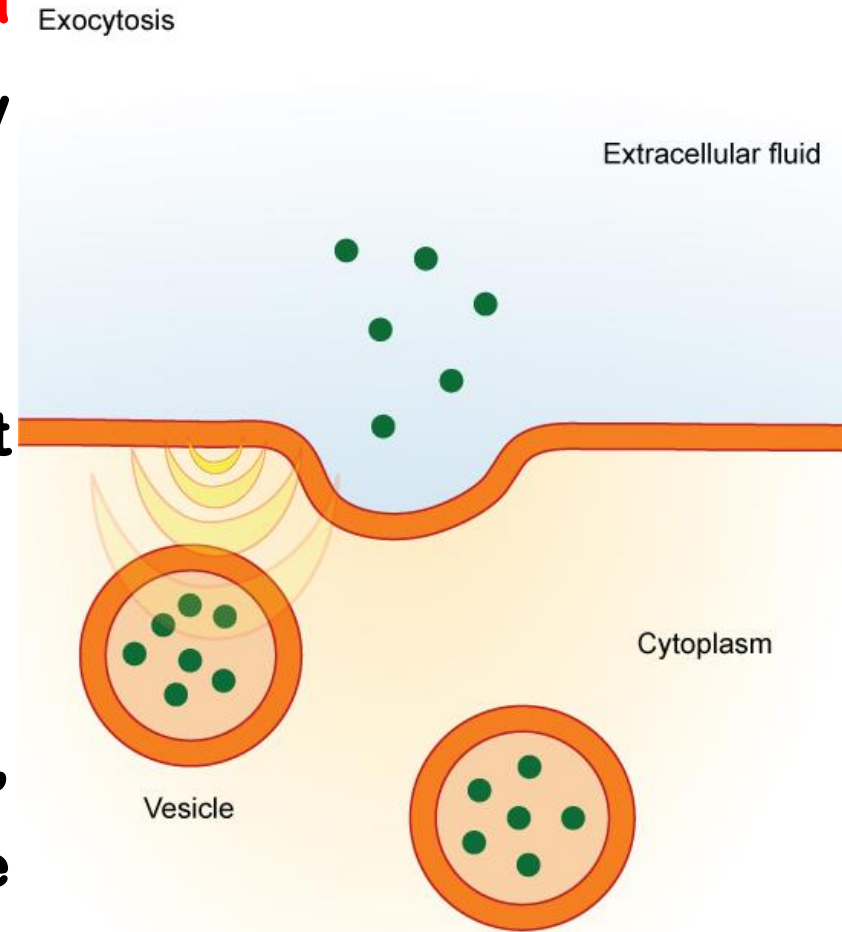


# Endocytosis

➤ Endocytosis is the process of capturing a substance or particle from outside the cell by engulfing it with the cell membrane.

➤ The membrane folds over the substance and it becomes completely enclosed by the membrane.

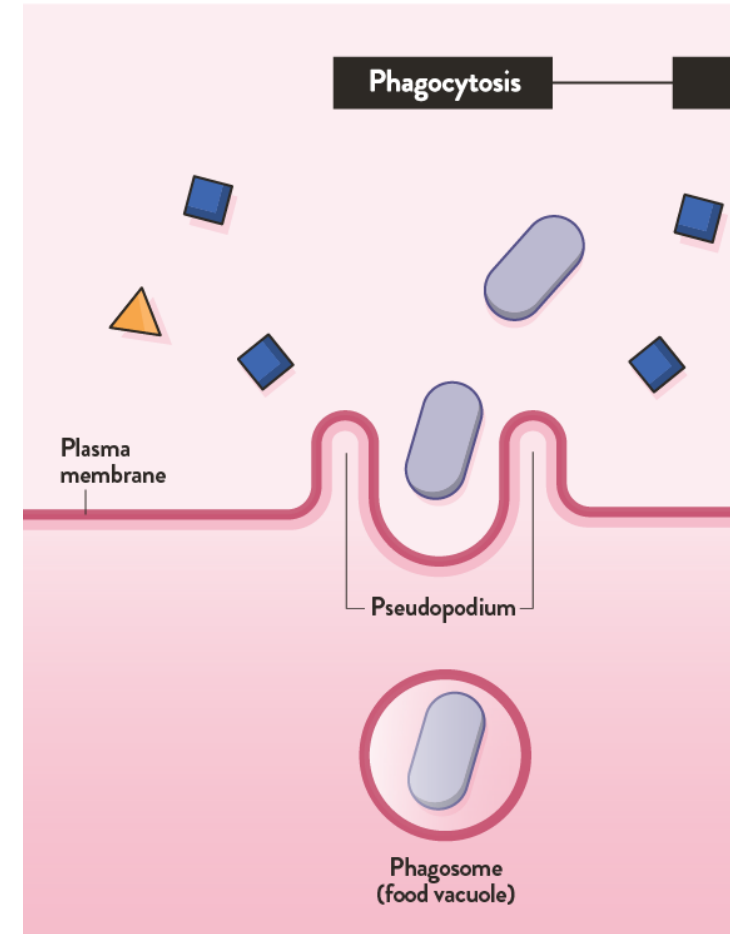
➤ At this point a membrane-bound sac, or vesicle, pinches off and moves the substance into the cytosol.



# Endocytosis

## 1. Phagocytosis (cellular eating)

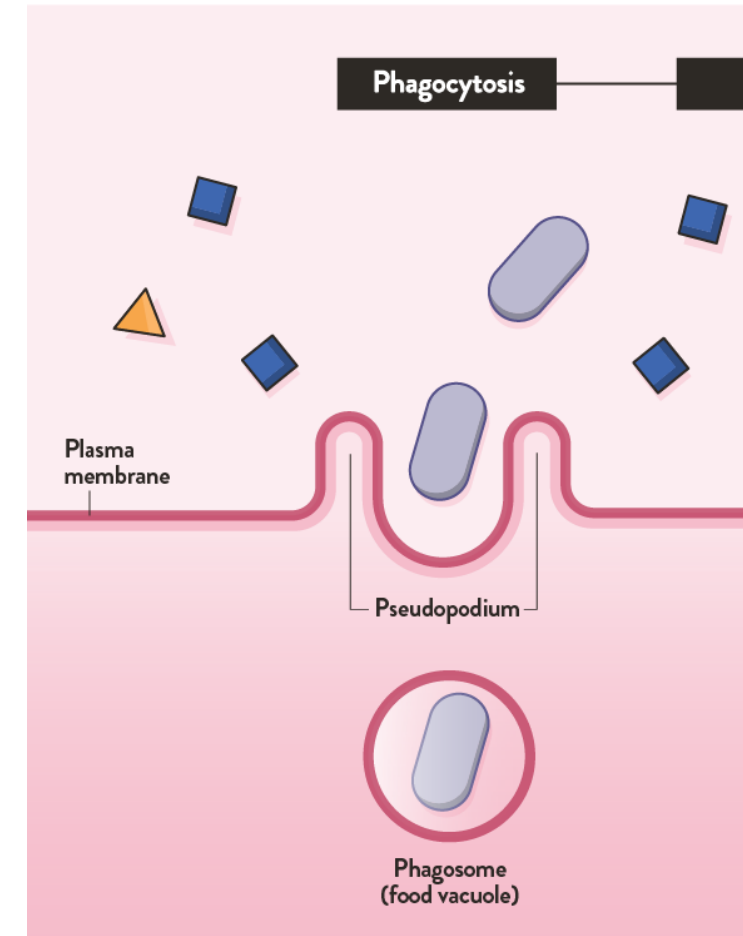
- Phagocytosis (the condition of “cell eating”) is the process by which large particles, such as cells or relatively large particles, are taken in by a cell.
- For example, when microorganisms invade the human body, a type of white blood cell called a neutrophil
- It is found commonly in protozoans and among certain cell of metazoans



# Endocytosis

## 1. Phagocytosis (cellular eating)

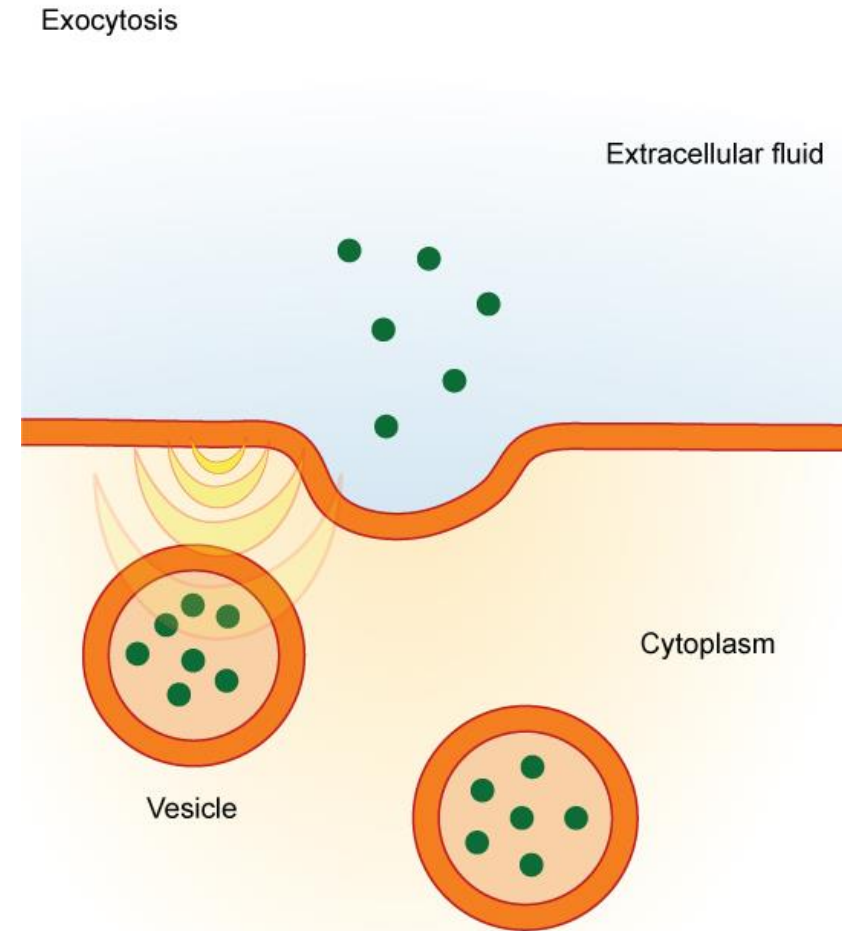
- Phagocytosis has been observed in Amoeba for obtaining nutrition
- In phagocytosis, a portion of the inward-facing surface of the plasma membrane becomes coated with a protein called clathrin, which stabilizes this section of the membrane.
- The vesicle formed during phagocytosis fuses with primary lysosome to form secondary lysosome in which food material is digested by acidic enzymes



# Endocytosis

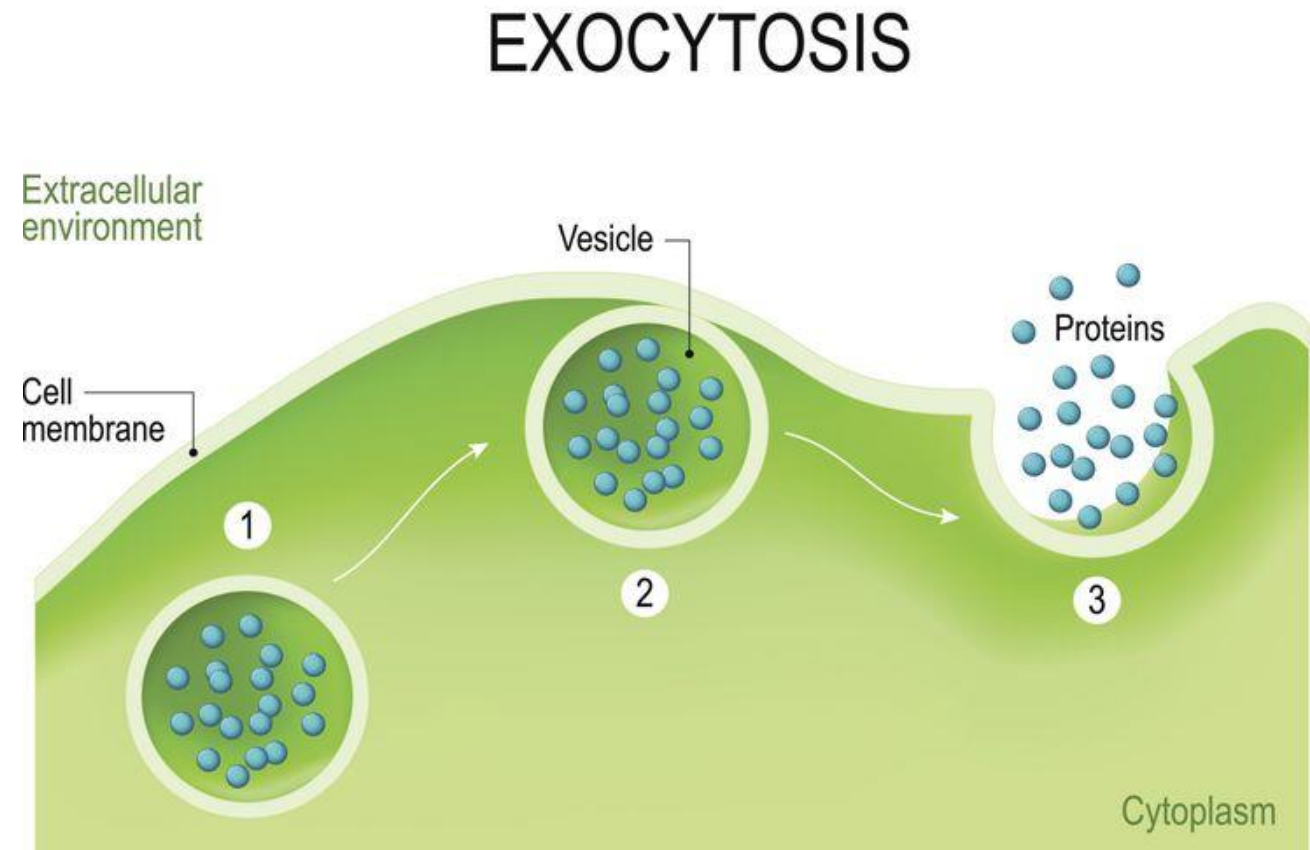
## 2. Pinocytosis (cellular drinking)

- A variation of endocytosis is called pinocytosis. This literally means “cell drinking” and was named at a time when the assumption was that the cell was purposefully taking in extracellular fluid.
- It is process that cell takes molecules, including water, which the cell needs from the extracellular fluid.
- It is process that cell takes molecules, including water, which the cell needs from the extracellular fluid.



# Exocytosis

- Exocytosis is the opposite of the processes discussed in the last section in that its purpose is to expel material from the cell into the extracellular fluid.
- Waste material is enveloped in a membrane and fuses with the interior of the plasma membrane.
- This fusion opens the membranous envelope on the exterior of the cell, and the waste material is expelled into the extracellular space



*Thank  
You*

