



These Notes are what u should add to your slides ,,

Best wishes from the immune team ☺

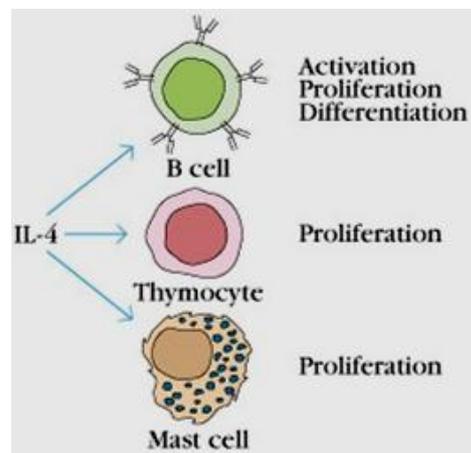
# Cytokines

## - Functions of cytokines:

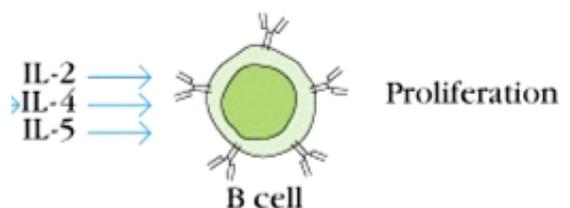
- 1- Mediate inflammatory response.
- 2- Role in hematopoiesis.
- 3- Activate mast cells (immunity against parasites + hypersensitivity)
- 4- Activate natural killer cells.
- 5- Activate T cytotoxic cells.
- 6- Differentiation of B lymphocytes into plasma cells.

## - Properties of cytokines:

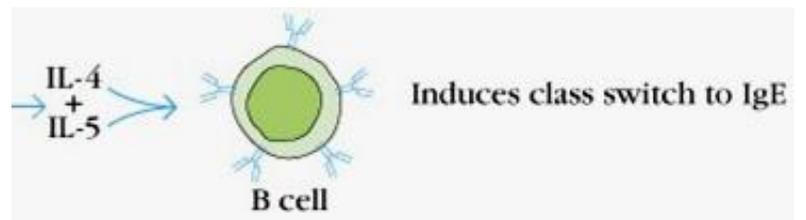
1- **Pleiotrophy**: a single cytokine can have several functions



2- **Redundancy**: several cytokine can have the same function.



3- **Synergistic**ity: several cytokines together do a function.



4- **Antagonism**: a cytokine can block the action of another cytokine.

