CONCEPT: IMMUNE SYSTEM COLLABORATION

● The innate immune system responds _____ to a pathogen

□ Toll Like Receptors (TLRs) recognize pathogens

- Causes WBCs to take up pathogen, and begin breaking it apart, and presenting it via MHC molecules

□ *Dendritic cells* are antigen presenting cells (innate immune system) that _____ antigens to T_h cells

- T_h cells then secrete inflammatory molecules (**cytokines**) which increase:

- Numbers of WBC

- Migration of WBC into infection site

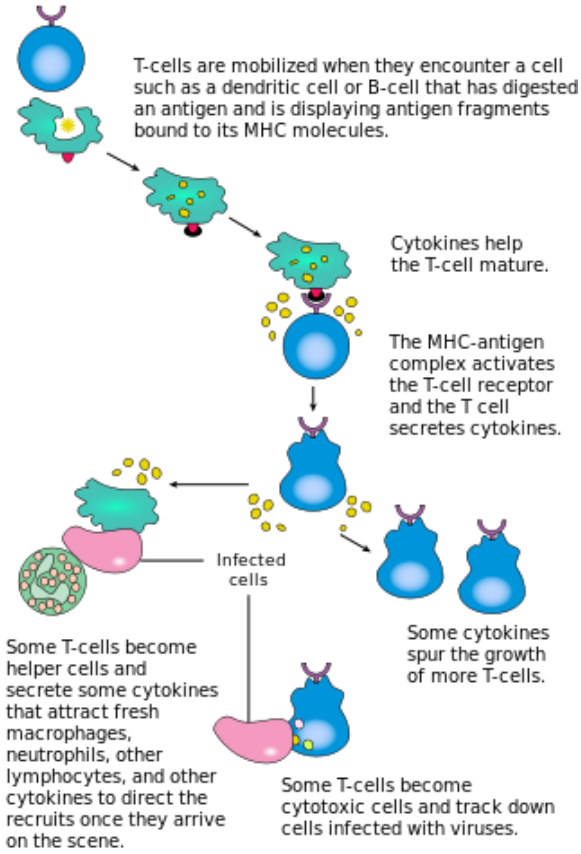
- Increase cell-adhesion molecules so WBC can attach to infection site

- T_h cells can also activate _____ cells

- *T_{h1} cells* activate macrophages and T_c cells to kill internalized pathogens

- *T_{h2} cells* activate B cells to secrete antibodies to target extracellular pathogens

EXAMPLE:



PRACTICE:

1. Choose the following with the proper order of immune system activation.
    a. B cell → T cell → Dendritic cell → infection
    b. Infection → T cell → Dendritic cell → B cell
    c. Infection → dendritic cell → T cell → B cell
    d. Infection → B cell → dendritic cell → T cell