## Week 5 Discussion: The Lymphatic System and Immunity

### Required Resources

Read/review the following resources for this activity:

- 🎬Textbook: Chapter 21
- 🎬Week 5 Concept
- 🎬Minimum of 1 scholarly source

### Initial Post Instructions

Choose one of the following topics for your initial post:

A. Our knowledge and understanding of the various forms of lymphocytes continue to expand. Our initial discussion this week will be on the various forms of B and T cells -- each of us should take one class of lymphocytes and explain it's role in the adaptive immune process. As you comment on other students' postings be sure to add additional insight into the mechanisms of the subclass of cell and its interactions with both components of the innate and other aspects of the adaptive immune system.

B. Recently a number of individuals have claimed that adjuvants, such as thymersol in vaccines, lead to the development of a variety of disorders, such as autism. Although these initial claims have not been substantiated and have since been withdrawn from the scientific literature, the concern continues today. How would you counsel parents concerning vaccination? Discuss the issue of herd immunity and the risks in our modern society related to refusal to provide vaccination

*Answer:*

Adaptive immunity comes up when a pathogen avoids the innate immune system and develop resistance with antigen. This is composed of B cells and T cells and for this post I will focus on the B cells.

The B cells are a type of lymphocyte that are in charge of the humoral immunity when it comes to the adaptive system and produce antibodies as well as have a single nucleus (Kurosaki et al., 2015).

The B cells create Y shape proteins that assist in the killing of bacteria and viruses. The B cells are activated by the helper T cells when it has had contact with the same germ as the B cells and starts multiplying and going into the blood. B cells have the ability to become memory cells and keeping track of everything they have fought.