Immunology 101

40-MINUTE ONLINE COURSE | LEVEL 2

SUGGESTED PREREQUISITES: THE BIOLOGY OF BIOTECH

OVERVIEW

Immunology 101 provides an overview of how the human immune system works. Understanding how the human body naturally fights disease is often the first step in creating novel therapeutics. Many of today's blockbuster biologics are modifications of our immune system's molecules and cells, including antibodies, T-cells, B-cells and cytokine inhibitors. If you are a non-scientist who wants to better understand the amazing immunotherapies that will play a large role in the next health care wave, Immunology 101 is the perfect place to start.

Four Takeaways:

1. Explain the functions of the cells and tissues of the human immune system.
2. Describe how the immune system naturally mitigates disease.
3. Discuss the relationship between the naturally occurring immune system and the immune-inspired therapies created by the biopharma industry.
4. Differentiate between the non-specific and specific immune system and how each has implications in drug discovery and development.

AGENDA

- **Immune System Overview** describes how the immune system's cells and tissues work and makes the connection between what occurs naturally to the immune-inspired therapies created by the biopharma industry.
- **Disease** lists how the broad categories of disease are caused and how the immune system recognizes and fights each category. By mimicking the immune system's "illness-fighting game plan" researchers build better therapies.
- **Components of the Immune System** differentiates the two distinct immune systems, the non-specific immune system and the specific immune system, which has implications in drug discovery and development.