

Biomanufacturing

45-MINUTE ONLINE COURSE | LEVEL 2 | SUGGESTED PREREQUISITES:
THE BIOLOGY OF BIOTECH, INTRODUCTION TO GENETIC ENGINEERING

OVERVIEW

Biomanufacturing introduces the intricacies and difficulties involved in manufacturing biologics. Biologics are produced in living cells, unlike small molecule drugs that are synthesized in glassware. To understand the biopharma industry, you need know how biologic medicines are produced. Biomanufacturing is for everyone in the biopharma industry, especially for those new to drug production, drug development or product launch.

Five Takeaways:

1. List the types of products produced in biomanufacturing.
2. Explain how cell lines are developed.
3. Cite the need for cell banks and the process of cell bank production.
4. Describe in detail the steps of a biomanufacturing campaign.
5. Explain the testing protocols that ensure product quality.

AGENDA

- **Cell and Cell Banks** explains cell line development and the process of cell bank production.
- **The Manufacturing Process** discusses in detail the steps used to make biologics, specifically bulk upstream and bulk downstream processing.
- **Harvesting and Purification** highlights the nuances involved in harvesting and purifying a therapeutic protein from cell culture and explains the testing protocols that ensure drug product quality.
- **Emerging Technologies** explores some of the new technologies that companies are using to reduce costs and increase yield of the drug product. These include continuous bioprocessing, continuous chromatography, and single-use systems.

WHAT PEOPLE ARE SAYING

"I was eager to take the (online) biomanufacturing course because the subject matter is interesting to me. Once I took the first one, it made me want to take more." -Director of External Innovation