

BRIDGING THE GAP: A BIOPHARMACEUTICAL PROCESSING WORKFORCE DEVELOPMENT CONTINUUM

Providing an education pathway for a successful biopharmaceutical career



JEFFERSON INSTITUTE FOR BIOPROCESSING

Philadelphia, PA

Type:

Academic Research Institution

Participating Organizations:

Bucks County Community College
Montgomery County Community College
Merck & Co., Inc.



NIIMBL certainly helped us jumpstart this project. We share with everyone how much value there is to be a part of NIIMBL and what a terrific opportunity it is to advance the industry. From a participant perspective, it was an overwhelming success with students finding employment and two continuing their education in the field. One student even called it the best educational experience they ever had.

LYN KUGEL

Jefferson Institute for Bioprocessing

INDUSTRY NEED

The global biopharmaceutical industry is growing at approximately 13-14% annually.¹ As a result of this growth, the industry needs entry-level candidates who possess the skills and competencies for technician roles on the manufacturing floor. While community colleges have been supplying the industry with biopharmaceutical manufacturing and biotechnology technicians for over 20 years, many entry-level candidates don't get hands-on experience with industry-scale equipment until they enter the workforce. Providing such experience to community college students is critical to ensuring the industry can continue to grow and entry-level technicians can hit the ground running.

OUTCOME

In August 2020, a pilot course was completed by 10 students from Montgomery County Community College and Buck County Community College. All of the students who completed the course were able to find employment, transition into related roles with existing employers, or pursue advanced education in the biopharmaceutical field. The course created a solid framework for the scale up of a high-value industry-focused training program that can quickly meet the demand for skilled candidates in today's growing biopharmaceutical manufacturing market.

SOLUTION

This project has developed a program to provide community college students with critical hands-on experience with industry-scale equipment to jumpstart a successful bioprocessing career. Developed with input from Merck & Co. Inc. and an industry task force, a 5-week hands-on course at Jefferson Institute for Bioprocessing (JIB) addresses this need in a state-of-the-art GMP (good manufacturing process) facility. The course covers components such as upstream and downstream operations, analytical methods and quality control, as well as professional skills development. The program enables students to jump directly from community college to industry careers and provides a roadmap for career advancement.

¹Morrow, K. John & Langer, Eric S. A Biopharma Year In Review — And A Look Ahead To 2020. Biosimilar Development. December 16, 2019.