



The New Hampshire Biotechnology Education and Training (NH BET) Center is Great Bay Community College's response to the arrival of Celltech Biologics (now Lonza Biologics) to the Pease International Tradeport in 1994. With the help of a National Science Foundation (NSF) Advanced Technological Education (ATE) grant in 1994, a 3,000 square foot lab was equipped and the Director of the NH BET Center, Dr. Sonia Wallman designed and adapted Research Protocols and Biomanufacturing Standard Operating Procedures to train biotechnicians in the tools, processes, and regulatory structure of the biotechnology industry.

These were later placed on-line at <http://biotech.ccsnh.edu> along with a Virtual Laboratory of equipment SOPs created and maintained by students in GBCC's two cornerstone classes to the biotechnology industry: Discovery Research and Biomanufacturing. In 2002, a Bioinformatics, Genomics and Proteomics course, designed and added to the biotech offerings. Bioinformatics can be taken as a technical elective in the Associate in Science degree in Biotechnology.

On September 1, 1998, Dr. Wallman became the Director of the Northeast Region of Bio-Link. Bio-Link is an NSF ATE Center for Biotechnology Education. Bio-Link's main reason for being is to create technicians with the skills, knowledge and attributes of the biotechnology industry. As part of this responsibility we also train community college and four year college faculty and high school teachers in hands-on biotechnology. With the move to 320 Corporate Drive on September 4, 2001, a 5,000 square foot warehouse space was chosen for the location of a space for hands-on biotechnology education and training of students, as well as faculty and teachers. Dr. Wallman designed the current hands-on facility to mirror a vertically integrated biotechnology company and PM McKay constructed the lab. The laboratory furnishings are from Gibson Brothers. The NH BET hands-on education and training facility consists of a Discovery Research wet lab containing tools for manipulating DNA, RNA and protein; a Biomanufacturing Suite containing bioreactors, gasses, spectrophotometers, microscopes, analyte analyzer, and centrifuges for upstream processing (cell culture); tangential flow filtration, depth filtration, and chromatography equipment for downstream processing (purification); an associated Quality Control Area with HPLC equipment, SDS-PAGE pre-cast gel system, microtitre plate reader and environmental monitoring equipment; and a Biotechnology Core Facility that is used for Biomanufacturing Production Support (for media and buffer preparation) and containing shared equipment such as incubators, autoclaves, refrigerators and freezers. Three 750 square foot spaces complete the NH BET and Northeast Region of Bio-Link: a classroom, an office for the Director and Bio-Link Administrative Assistant, and an office for the Webmaster and Faculty. A storage space exists for industry donations of equipment and supplies to support the Region's biotech programs.

Faculty and Staff of the NH BET Center and the Northeast Region of Bio-Link include:

Dr. Sonia Wallman, Ph. D. , Director of the NH BET Center, Northeast Region of Bio-Link, and Northeast Biomanufacturing Center & Collaborative

Deb Audino, Professor of Biotechnology

Harout DerSimonian, Ph. D., Professor of Biotechnology

Eszter Birck-Wilson, Ph. D., Adjunct Professor

Robert O'Brien, Laboratory Manager

Tim Dubuque, Webmaster for Bio-Link.org, Biomanufacturing.org, BiotechWorkforce.org

Jim Esberg, Web Developer

Susan Harvey, Administrative Assistant

Shain Eighmey, Biomanufacturing Apprentice

Hope Townes, Lab Assistant