

2011-2012

New Technology from Pall Corp. Bound for WPI's Biomanufacturing Education & Training Center



Architectural rendering of the BETC

A public-private partnership between Pall Corporation (NYSE:PLL), Worcester Polytechnic Institute (WPI), and the Massachusetts Life Sciences Center (MLSC) will provide WPI's Biomanufacturing Education and Training Center (BETC) with equipment and control systems for use in the processing, separation, and purification of biopharmaceuticals.

Nearly \$530,000 worth of bioprocessing equipment known as chromatography liquid handling systems will be built for the BETC by Pall Corporation. The technology will be paid for with the help of a \$250,000 grant from the MLSC, which leverages a matching 50-percent price reduction on the new equipment from Pall. "The BETC's mission is to expand and develop the biomanufacturing workforce here in Massachusetts and the region," said Stephen Flavin, WPI's vice president for academic and corporate development. "Having the ability to work on state-of-the-art equipment, like these Pall systems, will be a tremendous benefit for our students and for the companies who will train their employees at the BETC. We appreciate our growing relationship with Pall Corporation, and the ongoing support from our partners at the Massachusetts Life Sciences Center."

The **BETC**, which is now under construction at WPI's Gateway Park in Worcester, Mass., will be a near-commercial-scale biomanufacturing pilot plant, providing hands-on training and educational opportunities for the multilayered workforce needed to produce medicines and research compounds using engineered living cells.

"At Pall, we are working to apply the latest technologies and services to our customers' operations, so they have the right tools to bring new and innovative drugs to market more efficiently," said Ken Frank, senior vice president of Pall Corporation and president of Pall's Biopharmaceutical Division. "By partnering to train these future biomanufacturers, Pall is ultimately supporting our customers' ability to comply with increasingly rigorous global requirements in both upstream through downstream operations."

The BETC will be located in a four-story building now under construction at Gateway Park by the O'Connell Development Group of Holyoke, Mass. Occupancy is expected in late 2012. In addition to this new grant to purchase the Pall equipment, construction of the BETC and other life sciences spaces in the new building at Gateway Park is funded in part by a \$5.1 million capital grant from the MLSC.

"Leaders in the life sciences industry always tell me that they need skilled workers, such as lab technicians and individuals who have had hands-on training in biomanufacturing," said Dr. Susan Windham-Bannister, President and CEO of the Massachusetts Life Sciences Center. "Our Equipment and Supplies Program for Skills Training and Education stimulates the creation of partnerships between industry and educational organizations to truly

provide the Commonwealth's students and displaced workers with hands-on training in the use of modern equipment. We commend WPI and Pall Corporation for this important partnership that will enhance biomanufacturing training in the region."

The BETC will have industry-standard process areas of equipment preparation, buffer and media preparation, fermentation and cell culture, product capture, purification, and analytics. Content-rich programs in the BETC will give graduate and undergraduate students the chance to work on projects that are relevant to the industry, while learning the real-world business practices and workflows of life sciences companies. Biomanufacturing companies will use the BETC as a training center for new or incumbent employees, thereby avoiding the capital and productivity costs typically associated with in-house training programs for staff and customers.

Earlier this year, Abbott Laboratories, Bristol-Myers Squibb, and Shire Human Genetic Therapies (HGT) signed on as inaugural partners at the BETC, working with WPI to develop the curriculum, and mentor students in the BETC's various programs. Pall Corporation, which is a leading manufacturer of filtration, purification and separation products and technologies used to produce biopharmaceuticals, is the first major technology provider to collaborate with the BETC.

"Working closely with all sectors of the biomanufacturing industry is part of our strategy for the BETC," Flavin said. "The center will continually evolve, providing the education and training programs that companies need today, and integrating new technologies that will help the field advance in years to come."

Construction of the BETC enhances WPI's already significant presence in the life sciences; over the past seven years, the university has invested more than \$100 million in life sciences education, research, and infrastructure. These investments have come in the form of outstanding new faculty, supported by the most up-to-date technology and lab space. Most notably, WPI has invested \$65 million in Gateway Park, bringing to life a comprehensive urban redevelopment project that transformed a blighted and underutilized area in Worcester's core into a clean, thriving, mixed-use park that is home to a growing range of academic, research, and commercial enterprises.

About Pall Corporation

Pall Corporation (NYSE:PLL) is a filtration, separation and purification leader providing solutions to meet the critical fluid management needs of customers across the broad spectrum of life sciences and industry. Pall works with customers to advance health, safety and environmentally responsible technologies. The Company's engineered products enable process and product innovation and minimize emissions and waste. Pall Corporation, with total revenues of \$2.7 billion for fiscal year 2011, is an S&P 500 company with almost 11,000 employees serving customers worldwide. Pall has been named a "top green company" by Newsweek magazine. To see how Pall is helping enable a greener, safer, more sustainable future, follow us on Twitter @PallCorporation or visit www.pall.com/green.

November 9, 2011