Perkins+Will reinvents two facilities as new pharmacology labs for LIU

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Working with a timeline of under one year, Perkins+Will has reinvented two facilities as new pharmacology laboratories for Long Island University.

Located on the top floor of a three-story building in the downtown area, the 6,000 s/f Arnold and Marie Schwartz College of Pharmacy and Health Sciences laboratories - also known as the Institute for Pharmaceutical Analysis - expands Long Island University's position in the area of graduate education and research by creating an advanced analytical laboratory.

Home to a facility where students learn to manufacture pills and analyze them for accuracy and compliance, the two new labs give students the opportunity to join with industrial scientists to gain real-life experience by conducting research on challenges such as solid dosage forms, instrumentation, and new technologies used in industrial pharmacies. On top of that, as a core research center, the Institute for Pharmaceutical Analysis supports faculty research in basic pharmaceutics and such specialties as drug metabolism, pharmacokinetics, and clinical pharmacy and therapeutic drug monitoring.

One of the new laboratories for Long Island University, The Natoli Engineering Institute for Pharmacy Development, is a 1,400 s/f industrial lab with an additional 880 s/f of support space. The lab was designed for the purpose of manufacturing pills.

According to Claudia Opel, an architect in Perkins+Will's growing New York office who specializes in high-tech healthcare interiors, this new teaching laboratory contains five suites corresponding to the five processes of tablet making: weighing, granulating, drying, blending, tablet coating and compression.

Designed with a generous amount of glass and a blue color scheme for the wall and floor finishes, the teaching laboratory contains viewing areas from the corridor and features a Good Manufacturing Practices (GMP)-ready cleanroom environment with HEPA filters and air locks at the entrance and exit of the lab.

Across the hall from the Natoli Industrial lab is the Lachman Institute, a 2,000 s/f analytical lab where students analyze the pills they produced for accuracy and compliance. In this large open area, which Perkins+Will renovated in a yellow color scheme, the workspace contains the bulk of the lab equipment including HPLC (high performance liquid chromatography) and XRD (X-ray powered diffraction) equipment, overhead service carriers and point exhausts. Rounding out the project is a Pharmacometric Lab for computer work, conference rooms and support areas nearby.

A vivarium lab located in the Long Island University building offered a challenge for Perkins+Will's design team and for the scheduling of construction. Extra caution not disturb the environment of the lab animals - temperature, humidity and power - was a top-of-mind consideration for the project team.

Upon completion of the wet labs - which require direct ventilation and specialized piped utilities - Long Island University upgraded all corridors in the three-story building to the newly designed color scheme to create a uniform look throughout the facility.

"This project represents a world-class facility designed to conduct research, develop pharmaceutical products and provide educational opportunities for current and future pharmaceutical scientists" Opel said. "Perkins+Will understands that facilities supporting the mission of these complex institutions must achieve a superior level of success in fostering multidisciplinary, collaborative work in highly efficient and adaptable environments while attracting the best students, clinicians and researchers."

Long Island University's new wet labs are the latest in a long line of Perkins+Will laboratory projects including the Stanford University James H. Clark Center, Baylor Research Innovation Center and Texas A&M Emerging Technologies Center, among others.