



Wayne State breaks ground Sept. 18 on A. Paul Schaap Chemistry Building and Lecture Hall as part of ambitious \$42 million research facility expansion and renovation

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WSU professor turned bio-tech entrepreneur recommended \$10 million grant to erect chemistry headquarters with energy-efficient "green" roof on Cass Ave.



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A. Paul Schaap was once a professor of chemistry at Wayne State University. His landmark research led to the discovery of a life-saving medical diagnostic technology and the breakthrough start-up company Lumigen, Inc. On September 18 at 2 p.m., the life cycle of Wayne State's translational research enterprise will ceremonially and symbolically complete itself, as Schaap and university leaders break ground on the \$30 million **A. Paul Schaap Chemistry Building and Lecture Hall**, signaling this scientist's commitment to the institution that gave rise to his success. The new structure is part of a comprehensive \$42 million expansion and renovation of the existing Chemistry Building on Cass Avenue. A ribbon-cutting ceremony and reception will be held on the east side of the building between State Hall and Science Hall. Parking will be available in structure 6 located behind the Welcome Center and Barnes and Noble Bookstore.

"This grant was inspired by the long-standing and rewarding affiliation Carol and I have enjoyed with Wayne State University and the Department of Chemistry. Without the support we received from former WSU President David Adamany and the university's Board of Governors and without the collaboration of the graduate students of my research group, Lumigen would not exist. Without Lumigen, we would not have the resources to make this commitment," Schaap said.

"Faculty and students must engage in a significant level of interaction to conduct successful research in today's highly competitive environment. While the Chemistry building has served the department well over the past 40 years, it lacks a community space that encourages such interactions. This expansion will foster cohesiveness within the department that will propel chemical research and education programs at Wayne State to even greater heights."

The new Chemistry Building construction is the second of two phases providing 9,500 additional square feet including an atrium area, administrative offices and a lecture hall. Funding for the project is provided from two sources: \$10 million through a grant from the A. Paul and Carol C. Schaap Fund of the Community Foundation for Southeast Michigan, and \$32 million funded by Wayne State University through the sale of General Revenue Bonds and other funds.

Phase Two of the Chemistry Building expansion establishes a Cass Avenue landmark - a building entrance and elevation characterized by a majestic, four-story glass and brick-enclosed atrium. Designed primarily for chemistry department events, the atrium will feature an access control point improving security throughout the Chemistry Building. The expansion also includes a new, 150-person auditorium equipped with high-tech audio-visual and teleconferencing capabilities and office space for administrative and student services support staff.

"The A. Paul Schaap Chemistry Building and Lecture Hall will amplify our ability to educate undergraduate students, attract top faculty and doctoral students, and conduct research with a direct and lasting impact on both individuals and our society," said Wayne State President Jay Noren. "Paul and Carol Schaap's long relationship with Wayne State has given them a deep understanding of the importance of such resources to our faculty and students. We are exceedingly grateful for their generosity. This gift has long term impact because it supports a premier chemistry program at Wayne State which will further enhance its national impact and the prestige of the entire University."

According to Jim Sears, associate vice president of facilities, planning and management, the expansion achieves design objectives in both safety and environmental sustainability - a difficult task given that chemistry facilities are inherently energy inefficient due to exhaust systems that are necessary to expel contaminated air. "Safety is paramount," said Sears, "but so is the consumption of energy that is rapidly depleting our natural resources. This expansion gives us an opportunity to make a long-term investment in safe translational research and energy conservation. The novel sloped "green" roof, for example, reduces energy costs by keeping the building naturally cooler in the summer." Sears said.


The scope of the impending Phase Two renovation will include complete interior demolition of the south half of the building and reconstructing laboratory and lab-support areas for approximately 96,000 square feet of space. Small private laboratories will be replaced with larger, open floor plans increasing the net square footage of space available for research activities. All lab casework and fume hoods will be replaced. All mechanical and electrical secondary distribution systems will be replaced as well. Significant effort will go into designing and constructing the project for high energy and environmental performance to achieve a minimum of a Leadership in Energy and Environmental Design (LEED) Silver rating when completed. LEED, a certificate program administered by the U.S. Green Building Council (USGBC), offers points for buildings meeting green standards in sustainable building design and construction. Estimated completion of Phase Two is December 2010.


Phase One of the Chemistry Building project, completed in 2006, encompassed the demolition and reconstruction of the building's interior, laboratories and lab-support spaces on the first through fourth floors on the north half of the facility. The 2006 project also included the complete replacement of mechanical and electrical systems to support the north half of the building, and various improvements to address ADA requirements. The project, which cost \$12 million to complete, has been a positive contributor to the chemistry department's ability to recruit outstanding research faculty and graduate students.

About A. Paul Schaap

Schaap, who retired from the university in 2000 to become the full-time president of Lumigen, has maintained strong ties to the university. His bond with Wayne State began more than 30 years ago when he was hired as an assistant professor in the Department of Chemistry. His wife, Carol, was secretary to the chemistry chair; she later was secretary to then-President David Adamany until 1990. During his tenure in the chemistry department, Schaap and his research team developed a novel luminescent compound called a 1,2-dioxetane which can be triggered to produce light in medical tests, called immunoassays, to provide evidence of certain diseases in patients. The discovery of an efficient light-emitting molecule in mid-1986 evolved into a compound that is used worldwide to diagnose AIDS, cancer, hepatitis and other diseases. In 1987 this discovery led Schaap to found Lumigen, now the world's largest supplier of chemiluminescent reagents to the clinical immunodiagnostics market. Lumigen Inc. was recently acquired by Beckman Coulter.

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