

PARTNERSHIPS

UNIVERSITY of ILLINOIS
AT URBANA-CHAMPAIGN

OFFICE OF CAMPUS DEVELOPMENT

CORPORATE/FOUNDATION RELATIONS

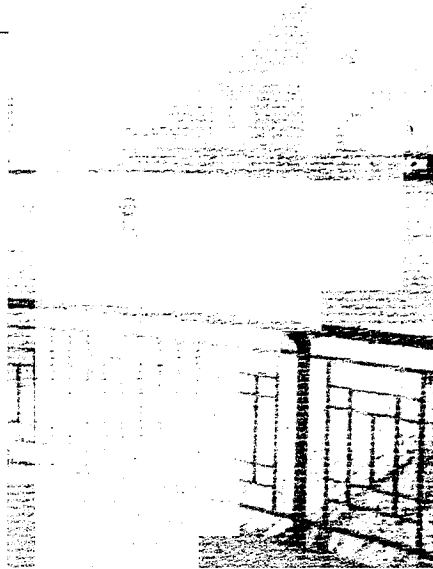
PRESTIGIOUS CARVER FELLOWSHIPS ESTABLISHED

The Roy J. Carver Charitable Trust of Muscatine, Iowa, recently announced a \$2 million gift in support of endowed fellowships for the College of Engineering.

Engineering Dean William Schowalter expressed the College's enthusiasm for the Carver Fellowships, saying he envisions them as the most prestigious and sought-after honor for generations of engineering graduate students. "The Carver Fellowships will become a prominent feature in our recruiting efforts, and the awarding of the Fellowships, along with the ongoing recognition of Roy J. Carver, will become an annual celebration in the life of the College," he said.

The College of Engineering is among the most preeminent in the nation, with a well-established reputation for innovation in both research and instruction. Professor Jim Economy, head of the Department of Materials Science and Engineering, noted the importance of fellowships to the College, saying, "We have the best faculty and the best facilities in the United States, so we need the best graduate students. But the competition is great. The ability to offer fellowships is very important leverage in graduate recruiting."

In the past decade, fellowships have become increasingly important to major



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research institutions like Illinois. With the economy booming, a smaller percentage of students are choosing to enter Ph.D. programs. Concurrently, as federal funding for research has leveled off, grants for paid assistantships have become scarcer. The ability to offer competitive fellowships is a powerful tool for institutions to recruit and retain top talent.

A fellowship is a paid stipend to a graduate student, usually independent of any specific duties. It carries the distinction that a student has achieved senior status and joined in partnership with faculty as a member of academia. Illinois has lagged behind other elite research institutions in both the number of students on fellowships and the dollars of

endowed fellowship support. The Carver Fellowships represent a significant leap forward in the number of fellowships that can be offered to today's engineering students, and the perpetuity of the endowment will enable generations of future U of I Carver Fellows to exemplify excellence in the engineering field.

The Carver Fellowships are the first college-wide endowed program of its kind at the University, so a committee is being established to formulate criteria and begin the Fellowship awarding process. It is expected that the first class of Carver Fellows will be named for this fall, and represent the varied disciplines within the College of Engineering.

Students named Carver Fellows will not only be viewed as scholars and top researchers in both academia and industry, but will carry with them the legacy of a University of Illinois graduate. Roy J. Carver, a native of Illinois, graduated from the Urbana campus in 1934, with a B.S. in engineering. Carver went on to found Carver Pump Company, launching this successful business enterprise during the Depression. In 1942, he moved to Muscatine, Iowa, where he established Carver Foundry Products. While visiting Europe in 1956, he noted the unusual-looking retreaded tires on a car. The following year, he purchased the

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Carver Fellowships continued

North American rights to a method of topcapping tires and founded Bandag, Incorporated. Carver eventually purchased the world rights to the process. Today, Bandag, Inc., is the world's largest producer of tire retread materials and equipment for the transportation industry.

In 1974, Carver was honored with the University's Alumni Achievement Award, and in 1977, the College of Engineering presented him with its Alumni Honor Award for Distinguished Service. During his lifetime, Carver was a strong proponent of philanthropic interests. He was especially interested in helping young people receive a quality education and in advancing knowledge and better health through medical and scientific research. Following his death in 1981, a private foundation was established to honor his name.

The University of Illinois has also benefited from Carver Trust support for pioneering initiatives in medical and scientific research. The Trust has invested more than \$1.6 million in research dollars on the campus. The most recent support focuses on young investigators who have the potential to become leading biomedical scientists in the years ahead. In helping to establish the credentials of these emerging researchers and position them for future federal and state grants, the Trust addresses a critical campus goal – to develop junior-level faculty into distinguished leaders by expanding the number and quality of opportunities available to them. This grant-making focus of the Roy J. Carver Charitable Trust is shared by several of the nation's most prestigious private foundations, including the Howard Hughes Medical Institute and

the W. M. Keck Foundation.

The two young researchers on campus recently awarded Carver grants are Professors James Slauch and Paul Selvin. Professor James Slauch, Department of Microbiology and the College of Medicine, received a grant to continue his work on *Salmonella typhimurium*. "Annually, 1.4 million people are infected with *Salmonella* in the U.S." he said. "We are interested in the molecular mechanisms that allow the bacteria to grow in the small intestine. This growth is responsible for the symptoms of salmonellosis. In some individuals, the bacteria invade further and cause a more serious infection; *Salmonella* are the leading cause of death among food-borne bacterial pathogens." Slauch and his students have developed techniques that allow them to identify and characterize the bacterial genes that encode products that are specifically required for intestinal colonization and growth. This work has several applications in the development of vaccines and antimicrobial drugs to prevent infections in the future.

Professor Paul Selvin, Department of Physics and Biophysics Center, received a grant to study nerve-cell proteins called ion channels. These channels act as switches, turning on and off nerve impulses. "We are looking at shape changes in the proteins to understand how they do their job," he said. "We look at the molecular level, one protein at a time." The malfunctioning of these channels cause diseases such as epilepsy, cardiac disorders, and migraines, and Selvin's study may lead to a better understanding of why these switches sometimes malfunction, perhaps leading to medical advances in the future.

Prior research support has been

received by Dr. Klaus Schulten at the Beckman Institute. Professor Schulten's current research focuses on the structure and function of supramolecular systems in the living cell, and on the development of new algorithms and efficient computing tools for structural biology. After conducting research in the field for more than a decade and benefiting from advancing computer technology, Schulten and his research team have developed sophisticated software to aid in their laboratory. Recently named a Swanlund Chair in Physics in recognition of his accomplishments, Schulten said, "The University of Illinois is the premier university in world-wide scientific computing, and the problems we work on do not have disciplinary boundaries. We have the best computational expertise, plus the power in computing, plus the talented scientists, plus the interdisciplinary Urbana spirit."

The Carver Fellowships, together with the Carver research funding, will exert a profound and lasting impact on the quality and quantity of research conducted at Illinois. In addition, the establishment of the Carver Fellowships at Illinois creates a new framework for fellowship support within engineering. These outstanding Fellowship awards will carry with them a life-long identification for top research talent from Illinois. Dean Schowalter elaborated, "Awards will be highly competitive. These outstanding young researchers will, upon completing their graduate degrees, go out into industry or academia and spread the excellence which is characterized by their graduate careers—a legacy that will genuinely reflect Roy J. Carver's industrial and philanthropic achievements." ♣