



## U.S. Rep. Slaughter Announces \$1.8 Million for Nanosystems Initiative

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April 10, 2007, Congresswoman Louise Slaughter and University of Rochester President Joel Seligman today announce \$1.8 million in funding to start the Nanosystems Initiative, a new multi-million dollar nanotechnology research center. The initiative will focus on developing fuel cells and biosensors—two areas that are expected to see tremendous growth in the near future, and in which the University is already notably strong.

"Under President Seligman's leadership, the University of Rochester continues to be on the cutting edge of science, research, and innovation," says Slaughter. "The Nanosystems Initiative is an exciting project that will lead to scientific advancement at the university and economic growth for the broader Rochester community. I'm pleased that I have been able to help support this program by securing \$1.8 million in federal funding for it this year."

"Louise Slaughter's support has been critical in helping us kick-start our leap into the exciting world of nanotechnology," says Seligman. "With the creation of the Nanosystems Initiative, the University of Rochester has an unprecedented opportunity to be one of the dominant players in the future of fuel cells and biosensor technology."

The University plans to completely renovate and equip the Institute of Optics Annex building, adjoining the Wilmot building and Robert B. Goergen Hall for Biomedical Engineering and Optics. The center will be open to researchers from a variety of disciplines across the University's campuses, and will focus primarily on greatly expanding the current research on fuel cells and biosensors.

With its two focus areas, the Nanosystems Initiative will complement and add unique capabilities to the critical mass of New York State nanotechnology that exists at the State University at Albany, Cornell University, and Rensselaer Polytechnic Institute. However, the nanosystems center at the University of Rochester will be unique in terms of its capabilities for high-temperature nano-materials found in fuel cells, and for optical interactions with molecular and genetic tracers. These rare capabilities will also be available to scientists from other universities.

Nicholas P. Bigelow, professor of physics and of optics and senior scientist at the Laboratory for Laser Energetics, said equipment needed for nano-research is often highly specialized and difficult to obtain. The new nanotechnology initiative will allow the creation of a center that will be shared by many scientists across the campus, and from a variety of different disciplines.

"The center will be truly interdisciplinary, and will involve faculty and students in optics, chemistry, physics, and biomedical, chemical and electrical engineering, as well as the University of Rochester Medical Center and all members of the community," says Bigelow. "In this sense, the new center will bring together researchers from across the university, allowing the whole to be greater than the sum of its parts."

Projects of nanotechnology teams will span a wide range of nanoscience and technology. One group, for example, is developing fast, sensitive biosensors for pathogens such as the H5N1 "bird flu" using nano-engineered optical structures. Meanwhile, another project involves developing new and highly efficient transfer membranes for fuel cells.

A robust nanosystems facility that specializes in optical biosensors and fuel cells can be an extraordinarily productive source of technology and commercialization in precisely the technology areas where nascent industry clusters need accelerated growth.

By developing new technologies, the Nanosystems Initiative will provide an important resource for economic development in the Rochester region and a scalable model for partnering business development with other research universities.

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