McCormick Students Win $10,000 for Global Sustainability Research

EVANSTON, Ill. --- Two individuals and one team, all Northwestern University students, have each received $10,000 for their research contributing to global sustainability through the Sustainability Innovation Student Challenge sponsored by the Dow Chemical Company.

The honor recognizes the McCormick School of Engineering and Applied Science students for their exceptional work in ongoing scientific, technical or social research to develop innovative approaches to meet human needs. Their projects, part of the "green chemistry movement," must also protect the environment while promoting economic growth and social welfare now and into the future.

Can Bayram, a doctorate student in electrical engineering and computer science, received the award for his work to develop highly efficient light-emitting diodes which use far less energy than traditional light sources. Manijeh Razeghi, director of the Center for Quantum Devices and Walter P. Murphy Professor of Electrical Engineering and Computer Science, advised Bayram.

Cynthia Pierre, a graduate student earning a master's degree in materials science and engineering, has been recognized for her research to improve the recycling of polyethylene terephthalate (PETE) -- a substance that is part of the polyester family and commonly used in beverage and food containers.

John Torkelson, Walter P. Murphy Professor of Chemical and Biological Engineering, advised Pierre.

The third winning project was submitted by a team of undergraduate students consisting of mechanical engineering majors Yann Minibog, Eric West and Suelyn Yu and manufacturing and design engineering major Zachary Lindemann. They received the award for their initiative to develop mini wind turbines that can help provide clean and renewable energy to developing nations. Walter Herbst, director of the Master of Product Development Program and professor of mechanical engineering in the McCormick School and professor of marketing in the Kellogg School of Management, advised the team.

"We are grateful to the Dow Chemical Company Foundation for partnering with the Northwestern Institute for Sustainable Practices in this international effort to promote sustainability," said Kimberly Gray, director of the institute and professor of civil and environmental engineering. "I'm thrilled the institute is able to feature the extraordinary sustainability research being done at Northwestern on a global stage."

In total, 34 Northwestern students from the McCormick School, the Kellogg School and the Weinberg College of Arts and Sciences submitted applications for 20 individual and group projects.

The Dow Chemical Company invited six universities to participate in the challenge. In addition to Northwestern, the participating universities included Cambridge University, Peking University, Tufts University, the University of Michigan and the University of Sao Paolo in Brazil.

The Dow Chemical Company Foundation initiated the Sustainability Innovation Student Challenge this year. Eligible areas of research included sustainable chemistry, energy efficiency and conservation, reducing climate change impact, life-cycle product safety, and sustainable freshwater supply and distribution.

The Northwestern Institute for Sustainable Practices (NISP) promotes interdisciplinary education and research into economically, environmentally and socially sound policies and practices that will help secure the Earth's natural resources for use now and far into the future. By convening experts from many disciplines, NISP works to develop the integrated approaches that are essential for a swift transition to sustainable practices, in sectors ranging from energy and transportation to urban planning and ecological restoration.