



**Woodrow Wilson
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News Release

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New Green Nanotechnology Initiative Launched “It’s Not Easy Bein’ Green,” or Is It?

WASHINGTON—The Project on Emerging Nanotechnologies at the Woodrow Wilson International Center for Scholars—a project supported by The Pew Charitable Trusts—today announced a series of meetings and a symposium that will result in an important report about how to apply the principles of green chemistry and green engineering to nanotechnology.

This new GreenNano series at the Project on Emerging Nanotechnologies aims to advance development of clean technologies using nanotechnology, to minimize the environmental and human health risks associated with the manufacture and use of nanotechnology products in general, and to encourage replacement of existing products with new nano products that are more environmentally friendly throughout their lifecycle.

This initiative is being led by Dr. Barbara Karn, on detail to the Project on Emerging Nanotechnologies from the U.S. Environmental Protection Agency’s Office of Research and Development. For the past five years, Dr. Karn managed EPA’s nanotechnology research program. She is a nationally recognized expert in combining nanotechnology with green chemistry, industrial ecology, and sustainability.

According to Dr. Karn, “The GreenNano series is designed to explore everything from new nanotechnology products claiming to be better for the environment—because of saved energy, reduced waste, or safer materials used—to smart engineering and business practices. It will look at government policies that offer incentives for developing such low-risk practices. The effort also will highlight research in green nanotechnology applications, including an eight session nanotechnology research and environment symposium at the American Chemical Society meeting in Atlanta, GA during March 26-30, 2006.”

“Green nanotechnology isn’t a distant ‘Star Trek’ fantasy,” said Dr. Karn. “Today, scientists are using nanotechnology to develop small, highly efficient and portable personal solar cells—using a flexible polymer sheet that can be rolled up and taken anywhere to recharge communications devices like laptop computers and mobile phones. Key nanotechnology companies and researchers are taking responsibility to ensure that nanotech products are produced in environmentally safe ways and that their risks to humans and the environment are minimized both during production and consumption. We want to highlight these efforts and look for ways to help encourage that kind of innovation.” The first event on Thursday, February 16th at 2 p.m. at the Wilson Center in Washington, D.C. will attempt to define green nanotechnology based on what we have learned from green chemistry and from the development of environmentally friendlier manufacturing processes and products.

“Muppet character Kermit The Frog is famous for singing the song, ‘It’s Not Easy Bein’ Green,’ ” said Project on Emerging Nanotechnologies Director David Rejeski. “But we believe that nanotechnology can be ‘green’ and help to enable a better environment. We also think the U.S. could be a global leader in green nanotech, and that government policy incentives should be directed toward

this goal. We know that green nanotechnology can be a source of American jobs and company profits in the future.”

“Nanotechnology holds tremendous potential for pollution prevention and sustainability, especially in the areas of clean water, energy, and efficient sensors. We are interested in bringing together stakeholders from government, industry, the research community, and citizen organizations who are committed to ensuring that nanotechnology helps create a new, more sustainable economy,” said Rejeski.

In addition to Dr. Karn, the February 16th event will feature Dr. John Warner, professor and director, Green Chemistry Program, School of Health and the Environment, University of Massachusetts at Lowell, and co-author of *The 12 Principles of Green Chemistry*; and Dr. Jim Hutchison, professor of Chemistry, University of Oregon, the head of the green chemistry Hutch Lab research group and holder of a U.S. patent for a process his lab created that manufactures a gold atom nanoparticle without the environmentally harmful effects usually associated with its creation.

For a complete schedule of GreenNano programs over the next six months, see: www.nanotechproject.org.

Nanotechnology is the ability to measure, see, manipulate and manufacture things usually between 1 and 100 nanometers. A nanometer is one billionth of a meter; a human hair is roughly 100,000 nanometers wide.

According to EmTech research, there are currently about 80 consumer products now on the market containing engineered nanomaterials—everything from cosmetics and sun screens to tennis rackets and golf balls. There are more than 600 electronics components, raw materials, drug delivery technologies, and research, process, and software tools which are used to research nanoscale technologies, manipulate nanomaterials and fabricate at the nanoscale.

The National Science Foundation predicts that the global marketplace for goods and services using nanotechnologies will grow to \$1 trillion by 2015 and employ 2 million workers.

The **Project on Emerging Nanotechnologies** is an initiative launched by the Wilson Center and The Pew Charitable Trusts in 2005. It is dedicated to helping business, government and the public anticipate and manage possible health and environmental implications of nanotechnology. For more information about the Project, log on to www.nanotechproject.org.

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