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UCSB Launches New National Center for Nanotechnology in Society

UC Santa Barbara will mark the opening of the National Center for Nanotechnology in Society (CNS) on Thursday, May 4 with National Public Radio's distinguished science reporter Richard Harris as the guest speaker.

The title of his presentation will be "Nanotechnology: More Than Just a Buzzword?"

The public event will be held at 4 p.m. in Engineering Science Building 1001.

The new UCSB facility is one of two major National Science and Engineering Centers established last fall by the National Science Foundation (NSF) to study the societal implications of nanotechnology.

The CNS is an international collaborative enterprise that involves social scientists, humanists, and scientific partners from all over the nation and the globe. The NSF is providing $5-million to support the UCSB center's first five years of operation.

The CNS will help scientists and scholars, policy makers, and the public better understand the societal implications of nanotechnologies, particularly as they unfold over the next decade.

The center also will play an important role in stimulating unprecedented interdisciplinary collaboration nationally among faculty members and students in the social sciences, humanities, physical and life sciences, and engineering.

"This is an unprecedented opportunity from a research standpoint, to be able to examine the public perception of a large issue before it hits public awareness in a big way," said Barbara Herr Harthorn, CNS co-director, principal investigator, and a UCSB research anthropologist.

Nanotechnology and nanoscience are increasingly important areas of research for scientists and engineers. To its advocates, nanotechnology is a "transcendent realm" where research in the physical and biotechnological sciences may converge with information technologies and the cognitive sciences.

Nanotechnology involves three key components: research and technology development at the scale of 1 to 100 nanometers (a nanometer is one-billionth of a meter); creating structures and devices that have novel properties and applications because of their small size; and the ability to control or manipulate these materials and devices on the atomic scale.

Nanotechnology applications range from new electronic devices and the means to fabricate them to materials for health and environmental uses.

Some nanotech products are already on the market while others are decades away from realization outside the lab.

"There is the potential for major breakthroughs in water filtration, solar energy, drug efficiency, computer processor speed, telecommunications, and security," said Evelyn Hu, UCSB professor of electrical and computer engineering and co-director of the California NanoSystems Institute.

"Though many nanotechnologies are years or decades away from the market, we have solid evidence of their enormous potential."

In addition to Harris, Harthorn, and Hu, other speakers for the opening event will include UCSB Chancellor Henry T. Yang and Christopher Newfield, CNS co-principal investigator and a UCSB professor of English.

The Center for Nanotechnology in Society will track societal response in the United States and abroad to emerging technologies.

While social and economic benefits of specific nanotechnologies may be enormous--for example, development of a cost-effective, low energy membrane for water purification--effects on health, safety, and the environment are largely unknown and

may become cause for public concern.

The center will study emerging perceptions of risk and public concerns about nanotechnology and will provide a context to involve nanoscientists in the discussion.

It will also support education and outreach activities.

CNS researchers at UCSB also include Richard Appelbaum, professor of sociology and global and international studies; Bruce Bimber, director of the Center for Information Technology and Society and a professor of political science and communication; W. Patrick McCray, a historian of science and co-director of CNS; and David Seibold, professor of communication.

The CNS is housed in both North Hall and in the new California NanoSystems Institute (CNSI) building at UCSB.

The CNSI, one of the prestigious California Institutes for Science and Innovation, is a partnership between UCSB and UCLA.

The Center for Nanotechnology in Society works closely with CNSI.

For more information about CNS visit http://cns.ucsb.edu.

Related Links

CNS Home Page

Richard Harris, NPR Biography

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