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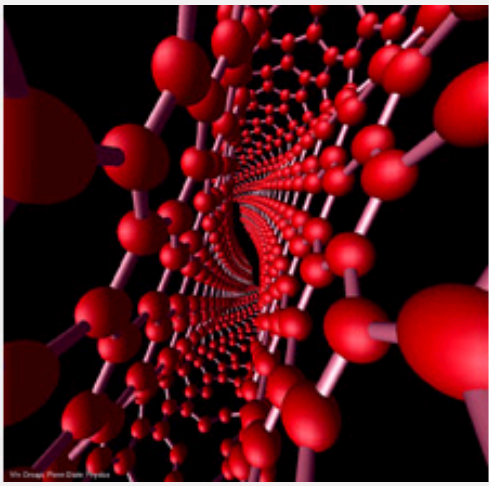
Press Release 10-185

NSF Renews Centers for Nanotechnology in Society

National Science Foundation awards more tha
to study societal impacts of emerging technol



Researchers study the ethical, legal, economic and
implications of nanotechnology.
Credit and Larger Version

October 12, 2010

The National Science Foundation (NSF) recently rene
important cooperative agreements totaling more tha
million over five years. These awards leverage prev
investments for studying the ethical, legal, economic
implications of the relatively new, nature-altering sci
nanotechnology.

The Center for Nanotechnology in Society at Arizona
University received $6,507,000 over a five year rene
the Center for Nanotechnology in Society at Univers
California, Santa Barbara received $6,076,000 for th
time period.

Nanotechnology allows researchers and manufacture
controll matter on an atomic and molecular scale. So
benefits of using the science to create new materials
medicine, electronics and energy production could b
transformative. But creating such things through mo
manipulation raises health and safety risks as well a
legal questions.

As part of the National Nanotechnology Initiative, wh
"responsible development" as one of four strategic g
nanotechnology research, NSF is committed to suppo
research that investigates the societal aspects of this
but uncertain technology. "These centers play a pivo
understanding and anticipating the potential societal
nanotechnology and engaging multiple stakeholders
discussions about the future of emerging technologie
Myron Gutmann, NSF assistant director, who leads th
Directorate for Social Behavioral and Economic Scie
are truly interdisciplinary centers, spanning the socia
and engineering sciences."

NSF-supported research at the Center for Nanotechn
Society at ASU (CNS-ASU) will use "real-time techno
assessment (RTTA)," a social science tool that relies
understanding the social, moral, political and econor
of nanotechnologies, to develop a strategic vision fo
"anticipatory governance."

"The biggest question for the center," said David Gu
director of CNS-ASU and political science professor,
anticipatory governance can take us, not only in gui
research but in assuring the responsible developmer
nanotechnologies."

The center's research, involving collaborations amor
Georgia Institute of Technology, and the University o
is conducted in clusters that logically organize resea
RTTA clusters include: research and innovation syste
assessment; public opinion and values; anticipation
deliberation; and reflexivity and integration. A secor
clusters for thematic research include equity, equalit
responsibility and, beginning with the renewal, urbar
materials, and the built environment or "nano and th

"It is particularly important," Guston said, "to locate
nanotechnologies in the city because cities are home
humanity and are also focal points of complex syste
energy, water, transportation, etc., that will be sites
nanotechnological innovation." Assessing how nanot
may or may not contribute to the sustainability of th
in an urban context is the primary goal of this new p
Under the renewal, the center will also pursue forma
informal educational opportunities and build new cap
among a broad array of stakeholders and the public

ASU's sister center at UC Santa Barbara will pull tog
interdisciplinary research to produce new knowledge
challenges to successful development of nanotechno
North America, Europe, Asia and other regions.

"The nano enterprise is a rapidly expanding," said ce
director Barbara Herr Harthorn, an anthropologist ar
professor of feminist studies at UC Santa Barbara. "
distributed global phenomenon with the potential for
and economic implications."

Dubbed CNS-UCSB, the center has an evolving inter
research infrastructure used to create a community
participants who share their knowledge for the simul
benefit of both society and technology. Under the av
renewal, CNS-UCSB will use this infrastructure to co
collaborative research on both approaches to achiev
barriers that prevent socially and environmentally su
and socially equitable nanotechnologies.

The center also will provide interdisciplinary educatio
opportunities for a new generation of social science,
and nanoscience professionals via graduate fellowsh

research assistantships, along with undergraduate s
research internships for regional community college
and UCSB undergrads.

"The CNS at UCSB has developed novel educational
that provide scientists-in-training hands-on experien
Harthorn. "Our goal is to generate knowledge useful
National Nanotechnology Initiative, policymakers, an
public."

She said the challenge at CNS-UCSB is to systemati
both in its contemporary and historical contexts, the
system of technological production associated with
nanotechnology, while at the same time probing asp
vital to fulfilling its promises of socially responsible d

The awards are scheduled to expire in August 2015.

-NSF-

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