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News Release

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Stimulus Debate Highlights Need for Focus on Nanotech Risks

New nano reauthorization bill includes crucial safety research mandates

Washington, DC – The nearly \$800 billion stimulus package being debated in Congress contains a number of measures intended to improve information technology, infrastructure and the energy economy in the United States – all areas that will be greatly aided by nanotechnology. However, without an increased focus by the federal government on possible risks posed by engineered nanomaterials, many of the potential societal advancements created by the emerging technology could be compromised.

The importance of understanding the possible risks posed by engineered nanomaterials is a centerpiece of legislation passed February 11 in the House of Representatives. The bill, the National Nanotechnology Initiative Amendments Act of 2009 (H.R. 554), which passed by a voice vote, highlights the growing need to learn more about the possible environmental, health and safety dangers posed by some nanoscale materials. The Senate is expected to take up a companion bill later this year.

Nanotechnology – which some scientists and business leaders hail as the next Industrial Revolution – is a key part of President Barack Obama’s research and development strategy, particularly in the energy sector. Nanoscale-lithium batteries will be in the next generation of electric cars, and nanoscale materials are being used in solar panels that will deliver power to countless homes, businesses and government buildings.

“Nanotechnology is going to be one of the most important drivers of innovation and economic growth in the 21st century. Passage of the National Nanotechnology Initiative Amendments Act of 2009 in the House is a significant step in the right direction,” says David Rejeski, the director of the Project on Emerging Nanotechnologies (PEN). “The bill contains a number of measures that will increase transparency and help improve science-based government oversight of nanotechnology. It also will help to ensure that the potential risks posed by nanomaterials do not pose a threat to public safety or undermine investor confidence.”

Passage of the bill comes only months after a National Research Council (NRC) panel issued a highly critical report describing serious shortfalls in the Bush administration's strategy to better understand the environmental, health and safety risks of nanotechnology and to effectively manage those potential risks.

The NRC report, *Review of the Federal Strategy for Nanotechnology-Related Environmental, Health and Safety Research*, calls for a significantly revamped national strategic plan that will minimize potential risks so that innovation will flourish and society will reap nanotechnology's benefits in areas like medicine, energy, transportation and communications.

NRC's assessment follows a PEN evaluation of the overall federal spending on nanotechnology risk-related research. Of the annual \$1.5 billion investment by the government in nanotechnology research, PEN determined that in 2006 (the most recent year for which data was available) just 62 federally-funded projects were *highly relevant* to understanding nanotechnology risk, with an estimated annual budget of \$13 million. In contrast, the Bush administration estimated that \$37.7 million was invested in highly relevant risk research in fiscal year 2006. By either calculation, highly relevant risk research is only as little as 1 percent or as much as 2.5 percent of the annual federal nanotech research budget. Most experts have been calling for an annual minimum of 10 percent.

"Passage of the House bill is a sign that lawmakers believe that protection from the possible risks of nanomaterials is important not only to the safety of Americans, but also to help advance beneficial technologies for the next generation – a key in helping improve the economy," says Andrew Maynard, chief science advisor for PEN.

About Nanotechnology

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. In 2007, the global market for goods incorporating nanotechnology totaled \$147 billion. Lux Research projects that figure will grow to \$3.1 trillion by 2015.

The **Project on Emerging Nanotechnologies** is an initiative launched by the Woodrow Wilson International Center for Scholars 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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