

Limited transparency in federal nanotech research may hamper development

April 16 2008

Without clear leadership and more transparency in federal risk research investment, the emergence of safe nanotechnologies will be a happy accident, rather than a foregone conclusion, says Dr. Andrew Maynard, the Chief Science Advisor for the Project on Emerging Nanotechnologies (PEN). This sentiment was voiced today by Dr. Maynard in testimony at the House Science & Technology Committee's hearing on the National Nanotechnology Initiative Amendments Act of 2008.

“Activities to date within the federal nanotechnology initiative have been less than transparent, to the detriment of an effective strategy for nanotechnology development and use,” Dr. Maynard says in written testimony submitted to the committee. “There is a yawning knowledge-gap between nanomaterials entering commerce now and what we know about their safety. This uncertainty over how to develop nanotechnologies safely is hamstringing regulators, impeding nano businesses, and confusing consumers. In short, moving towards the nanotechnology future without a clear understanding of the possible risks, and how to manage them, is like driving blindfolded.”

A PEN assessment of purported nanotechnology risk-relevant research published by the federal government's National Nanotechnology Initiative reveals that spending on environment, health and safety-focused research projects in 2006 was substantially lower than that claimed by U.S. officials.

“Research projects with the primary aim of understanding and managing the risks of nanotechnology accounted for only \$13 million in funding for 2006,” according to Dr. Maynard. “Over the same period, European Union nations invested nearly \$24 million in similar nanotech risk-focused projects—almost twice as much as the U.S. There is undoubtedly potentially-relevant research buried in other U.S. government funded projects. But without transparency, it is impossible to assess the true value of this research, or ensure it is used to enable the development of safe nanotechnologies.”

In his testimony Dr. Maynard also renews calls for a reorganization of a federal nanotechnology risk research strategy that emphasizes a “top-down” approach to directing environment, health and safety studies on the cutting-edge technology; urges a minimum of 10 percent of the federal nanotechnology research budget be committed to highly or substantially relevant environmental, health and safety topics – a significant increase from current levels; and the creation of public-private partnerships that will leverage more funding for research.

On top of discussing issues pertaining to the federal investment in nanotechnology research, Dr. Maynard addresses his concern with the “nano-readiness” of America’s students, teachers and workforce in his testimony – particularly through his endorsement of initiatives aimed at recruiting and preparing students to pursue education in nanotechnology. The House nanotechnology legislation at issue focuses significant attention on nanotechnology education.

“When today China has as many scientists and engineers working on nanotechnology as the U.S., it is critical to support initiatives in nanotechnology education aimed at our young people,” Dr. Maynard says.

Source: Project on Emerging Nanotechnologies

Citation: Limited transparency in federal nanotech research may hamper development (2008, April 16) retrieved 26 April 2024 from <https://phys.org/news/2008-04-limited-transparency-federal-nanotech-hamper.html>

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