



For Immediate Release
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**Statement of Research and Technology Subcommittee Chairman Larry Bucshon (R-Ind.)
Hearing on Nanotechnology: From Laboratories to Commercial Products**

Chairman Bucshon: I would like to welcome everyone to today's Research and Technology Subcommittee hearing entitled "Nanotechnology: From Laboratories to Commercial Products." Nanotechnology is an area of great promise for the future of the U.S. economy, the leaps and bounds in the scientific knowledge base, and in terms of potential products and employment opportunities as the technology continues to mature. Many believe it has the potential to be the next industrial revolution, leading to significant social and economic impact. Nanotechnology is already prevalent in our lives; it is in sunscreens and cosmetics, batteries, stain-resistant clothing, eyeglasses, windshields, and sporting equipment. The development of nanomaterials that are stronger, lighter, and more durable may lead to better technology for items such as bulletproof vests and fuel efficient vehicles. This is especially important as gas prices continue to remain high.

Just recently, I learned of a new technology (developed at Sandia National Laboratories and the University of New Mexico Cancer Center) in which a hybrid particle, made up of a porous silica nanoparticle core, contains small peptides that are targeted to proteins expressed specifically by cancer cells. It is an ideal vehicle to deliver the custom drug combinations needed for personalized medicine, and will transform how we deliver antibiotics and antivirals.

As a cardiothoracic surgeon and medical professional, I find this application of nanoscience to medicine not only fascinating but also having important implications for our Nation's national security and economy, including ways to lower medical costs.

In 2013, the National Science Foundation (NSF) nanotechnology investment supported 5,000 active projects, over 30 research centers and several infrastructure networks for device development, computation, and education. It impacted over 10,000 students and teachers. Approximately 150 small businesses were funded to perform research and product development in nanotechnology through the Small Business Innovation Research (SBIR) and the Small Business Technology Transfer (STTR) Programs. It is also my understanding that three new exciting directions are planned for 2015, including nanostructured composite materials, nanoscale optics, and photonics.

Unfortunately, despite these promising activities funded directly by the NSF, the President's budget for key directorates that carry out nanotechnology research within NSF's Research and Related Activities Account (RRA) is disappointing, with a \$1.5 Million overall decrease. On the other hand, the Frontiers in Innovation, Research, Science and Technology (FIRST) Act, of which I am an original co-sponsor, passed our Subcommittee this past March with increases to several key directorates that fund nanotechnology basic science research.

In addition to the NSF, the National Nanotechnology Initiative (NNI) is the U.S. government's effort to coordinate the nanotechnology research and development activities of the Federal agencies. While nanotechnology is not a new scientific field, it still remains an emerging, important and relevant area. The House passed an NNI reauthorization bill in both the 110th and 111th Congresses, only to see it die in the Senate. This hearing today provides us with an opportunity to get feedback on the future of NNI and have a serious discussion about national priorities for this technology.

The President's proposed budget for NNI in fiscal year (FY) 2015 (\$1,536.9M) is \$13.3 Million less than FY2013 (\$1,550.2), and is estimated to be less than what is spent for FY14 (1,537.5). These budget numbers are concerning, especially for an area of R&D that holds an important place in our nation's economic and national security.

I look forward to hearing today's testimony and to a productive and fruitful discussion on U.S. nanotechnology investments, priorities, and policies. Again, thank you all for joining us today.