



COMMITTEE ON
SCIENCE, SPACE, & TECHNOLOGY
Lamar Smith, Chairman

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Statement from Barbara Comstock (R-Va.)

*Head Health Challenge: Preventing Head Trauma from Football Field to
Shop Floor to Battlefield*

Chairwoman Comstock: The purpose of this morning's hearing is to review the results of the final phase of the Head Health Challenge, a significant public-private collaboration for public health and safety.

This worthy effort is cosponsored by the National Institute of Standards and Technology – NIST – and three private organizations: the National Football League, General Electric Corporation and Under Armour. The final phase of the Head Health Challenge is aimed at design and development of advanced materials to improve protective equipment and prevent head injuries in sports, industry, the military and others who are at higher risks of head trauma.

These kinds of public-private science challenges have a long history of catalyzing innovation and creating solutions to difficult problems.

For instance, The Longitude Prize of 1714, offered by the British government, resulted in the marine chronometer and dramatically improved shipping safety.

Napoleon Bonaparte's 1800 Food Preservation Prize led to development of canned foods.

More recently, spurred by the clean-up problems after the Deepwater Horizon disaster in 2009, the Wendy Schmidt Oil Cleanup X CHALLENGE of \$1 million demonstrated a technology that had more than four times the previous recovery rate for cleaning oil off the ocean's surface.

In recent years, NIST and other federal agencies have organized and/or supported prize competitions and challenges that ranged from accelerating the development of autonomous vehicles to breakthroughs in facial recognition technology.

NIST and other federal agencies are involved in a number of multi-agency and public-private challenge initiatives, for which I congratulate them.

As my colleagues know, provisions of the American Innovation and Competitiveness Act, which originated in this subcommittee, streamline prize competition procedures for federal science agencies and encourage them to consider them to stimulate problem-solving innovation.

There is no shortage of priority research areas for which federal agencies should consider using prizes in the future. Health issues are at the top of my list because there is the potential to save many lives and also save huge sums of taxpayer money.

At the last hearing on this subject, subcommittee members and our witnesses discussed the potential for catalyzing development of portable dialysis devices. A breakthrough in portable dialysis would improve hundreds of thousands of lives and could save Medicare billions of dollars every year.

Another terrible disease for which a public-private challenge prize might be considered is Alzheimer's disease. More than five million Americans live with Alzheimer's today, and that total could triple by 2050 if there aren't breakthroughs in prevention and treatments.

Through support for basic research, through support for measurement science, through support for commercialization of taxpayer-funded research breakthroughs and through science prize competitions, the top priority of the Science Committee is to encourage innovation and technological advancements.

Initiatives like the Head Health Challenge encourage individual incentive and inspire creative solutions. They leverage significant private sector investments in important national priorities – for instance, preventing serious head injuries. And they engage the brightest and most creative minds our nation has.

We look forward to hearing from some of those best and brightest minds this morning, including Shawn Springs from Windpact Inc, which is located in the 10th Congressional district of Virginia that I represent. I hope the stories of all our witnesses will help to inspire a new generation of scientists and entrepreneurs.

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