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NEW VIDEO SERIES HIGHLIGHTS THE PEOPLE WHO FUEL AMERICA'S INNOVATION PIPELINE

Cuts to Federal Research Funding Jeopardize Generations of Talent and Cycle of Discovery and Innovation Needed for Economic Growth

WASHINGTON, D.C., JULY 17, 2012 -- What is the payback on federal funding for scientific research? It is discoveries and new insights that lead to innovations like the laser, GPS and MRI, companies like Google and Genentech, and entire new industries like biotechnology. It is also the scientists, engineers, doctors and teachers – cultivated as a result of this research – who are among the most capable in the world. In its new "Innovators" video series, The Science Coalition (TSC) aims to remind the public and policymakers of this second payback and its long-term impact on the nation's competiveness: federally-funded basic research leads to knowledge that drives innovation and economic growth *and* it trains the next generation of scientists, ensuring that the cycle of discovery and innovation continues.

"As the specter of automatic, across-the-board budget cuts draws closer, it is essential to remind people not just of the role that science-driven innovation plays in our economy, but also of the caliber of people who conduct that research on our behalf," said Abby Benson, 2012 President of the Science Coalition and Assistant Vice President for Research and Federal Relations at the University of Colorado.

"Behind every discovery are people who have committed their careers to scientific inquiry; the vast majority of these people also are largely dependent on federal funding to support their work. Every time science budgets are cut or flat-funded, we risk losing a generation of talent and America's status as an innovation powerhouse," Benson said.

The "Innovators" video series highlights six researchers engaged in scientific discovery today. These individuals – from Brown University, Stony Brook University, University of California, Los Angeles, University of Maryland and University of Pennsylvania – are conducting research, running labs, teaching classes, mentoring young scientists, and, through new discoveries, techniques and insights, enhancing America's capacity to innovate. They are working to turn smart phones into go-anywhere medical devices; identify the ideal Navy SEAL candidate before that person ever goes through basic training; provide the scientific basis for sound public policies; connect the dots between lifestyle and quality of life, bringing down healthcare costs in the process; develop tools that give surgeons 'X-ray vision;' and help the body to heal itself by re-growing tissue at a place or a time that it wouldn't ordinarily do so.

The researchers reflect on their work as well as how the U.S. system for funding research makes the United States a leader. "Because of the opportunities provided by federal research funding, we are developing a generation of scientists that has no competitor on planet Earth," says Erik Dutson, executive medical director of the Center for Advanced Surgical and Interventional Technology at the University of California, Los Angeles.

They also talk about the risks of decreased funding. "If you have a population of scientists that [don't] have the resources to train the next generation for even five years, the impact of that lack of individuals who are trained to do innovative research will be felt for decades to come," says Lilianne Mujica-Parodi, assistant professor of biomedical engineering at Stony Brook University.

In addition to the "Innovators" video series, The Science Coalition has produced a complementary brochure and a new webpage (innovators.sciencecoalition.org) that is dedicated to telling the stories of federally-funded university researchers across the country. The work of these researchers, and many thousands of others, will drive innovations in medicine, technology, energy, safety and the environment – leading the way toward a healthier, more sustainable, secure and prosperous future for all Americans. Some of the featured work includes:

- A <u>team of Yale doctors</u> who forever changed the life of a young girl when they developed and performed an operation to correct one of the most serious types of congenital heart defects. This was the first operation of its kind performed in the United States;
- An Auburn University <u>food safety engineer</u> who has developed a tiny sensor that is transforming the way inspectors test food for biological pathogens;
- A <u>Northeastern University professor</u> who seeks to bring about a revolution in electrochemical energy conversion and storage;
- A team of University of <u>South Florida marine scientists</u> who have turned a new generation autonomous underwater vehicle into a unique marine observing and reporting system – that uses Twitter to report its findings;
- A team of <u>West Virginia University researchers</u> who are working to make the battlefields safer for soldiers by developing a new, unique line of unmanned aerial vehicles for reconnaissance and defense; and
- Ohio State researchers who describe efforts to study how one species of coral is surviving despite the odds—far from sunlight in a warming ocean.

The Science Coalition brochure and videos can be viewed at innovators.sciencecoalition.org.

The Science Coalition is a non-profit, nonpartisan organization of the nation's leading public and private research universities. It is dedicated to sustaining strong federal funding of basic scientific research as a means to stimulate the economy, spur innovation and drive America's global competitiveness. Learn more at www.sciencecoalition.org.