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March 27, 2017

[Speaker of the House Paul Ryan
[Senate Majority Leader Mitch McConnell]

Minority Leader Nancy Pelosi]
Senate Minority Leader Charles Schumer]

[CC: Appropriations Chairs/Ranking Members, Appropriations Subcommittee Chairs]

Dear Congressional Leaders:

We, the undersigned organizations representing many business, science and engineering, medical and health, and higher education institutions in the United States, urge you to protect and renew the nation's long-standing commitment to strong investments in cutting-edge scientific research.

Our nation's research enterprise is among the most powerful engines for American prosperity. One of the consistent areas of bipartisan agreement over the past 70 years has been the importance of the federal government's role in supporting research and innovation. We urge you to follow the example of your predecessors and prioritize these investments as you work to complete FY 2017 appropriations and craft the FY 2018 budget. We ask you to consider the following in your deliberations:

America's research and development (R&D) enterprise has made our nation the world's preeminent, most effective, and sought-after partner for innovation. It is among the most powerful engines of American prosperity, producing value far beyond the sum of its individual agencies. History confirms that the future is found in research across all fields of science and engineering:

- American physical and life sciences leadership has helped us better understand ourselves and our world, enabling us to improve and lengthen Americans' lives, enhance public health, advance food safety and security, and enhance quality of life.
- Environmental sciences research has allowed state leaders and managers, business owners, and farmers to have access to the best available science for critical decision-making that impacts our energy and transportation infrastructure, agriculture sector, and water resources management.
- Defense research has improved the effectiveness of our armed forces and our awareness of growing threats around the world, and saved lives on the battlefield and once soldiers are home.
- Social and behavioral science research has been critical to respond effectively to disasters; enhance intelligence analysis; understand decision-making and its impact on public health and business investments; and improve international relations.
- Computer science research has made the Internet economy possible and improved cybersecurity.
- Material and engineering sciences have improved energy sources, space exploration, bridges and roads, and enabled countless technologies and products now essential to modern lives.

U.S. investments in science R&D have created millions of jobs in public and private sectors, enhanced state economies, and generated commercial growth. According to a [leading report](#) conducted by the National Academies of Sciences, Engineering, and Medicine, although scientists and engineers only account for four percent of the nation's workforce, they help create jobs for the other 96 percent of the population. Scientists' discoveries and insights extend beyond the research laboratory, impacting and employing people in many other sectors, from designers to builders to salespeople to consumers.

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Decreased investment would have significant impacts on our country's long-term competitiveness and lead to an American innovation deficit. Many countries are increasing their investments in scientific research, recognizing that it will be a key foundation for 21st century economic growth and global competitiveness. For the period 2000-2013, China's average annual R&D investment growth shot up 17%; South Korea grew 8.3%; Russia 8.2%; Singapore 6.8%; and Germany 3.2%. This compares to 2% growth in the U.S. over that period. Without sustained commitment, this high-functioning engine is at real risk of stalling, harming the well-being of future generations. Once stalled, that process cannot be easily reversed. Attempting to rebuild our world-leading science and engineering enterprise would be expensive and slow, and face new competition from other rising leaders.

We urge America to protect its research and innovation infrastructure. This will enable institutions to continue investing in skilled workers and high-technology tools; focus today's scientists on creating today's discoveries; support and prepare the world's finest future scientists through quality STEM education from K-12 through graduate school; and communicate a clear, hopeful path for today's emerging, diverse young scientists and engineers who will realize tomorrow's breakthroughs and applications.

For many decades, the American people and our economy have reaped the enormous benefits federally-supported research. It is time again for the bipartisan foresight of U.S. policymakers to prevail in support of research. For FY 2017, we urge you to avoid a year-long continuing resolution and complete the appropriations process. For FY 2018, we urge you to reverse the Administration's proposed cuts to research investments and negotiate increased discretionary spending caps for next year and beyond that will permit sufficient federal research investments and sustain our nation's status as the world's innovation leader.

Thank you for considering our views.

The American Phytopathological Society and many other societies