

# United States Senate

WASHINGTON, DC 20510

March 18, 2016

The Honorable Thad Cochran  
Chairman  
Senate Committee on Appropriations  
S-128 United States Capitol  
Washington, D.C. 20510

The Honorable Barbara A. Mikulski  
Vice Chairwoman  
Senate Committee on Appropriations  
S-146A United States Capitol  
Washington, D.C. 20510

The Honorable Richard C. Shelby  
Chairman  
Senate Committee on Appropriations  
Subcommittee on Commerce, Justice,  
Science, and Related Agencies  
131 Dirksen Senate Office Building  
Washington, D.C. 20510

The Honorable Barbara A. Mikulski  
Ranking Member  
Senate Committee on Appropriations  
Subcommittee on Commerce, Justice,  
Science and Related Agencies  
156 Dirksen Senate Office Building  
Washington, D.C. 20510

Dear Chairman Shelby and Ranking Member Mikulski:

We are writing to request that you include at least \$7.564 billion for the National Science Foundation (NSF), as included in the President's FY 2017 budget request, in the Senate Fiscal Year 2017 Commerce, Justice, Science and Related Agencies Appropriations bill.

The requested funding will provide a critical investment in our national economy and education system. It will fund a range of NSF-supported advances and innovations. It will play a critical role in the launch the Obama Administration's cancer "moonshot." It will support fundamental research in biology, biochemistry, biophysics; data-driven discovery enabled by machine learning techniques and leveraging NSF-cyberinfrastructure; and engineered systems in nanotechnology, imaging, material science and robotics. It will support the development of reliable and sustainable energy resources and systems that are crucial for our economy and global competitiveness.

America's economic success in the 20<sup>th</sup> century was due in large part to its commitment to investments in science and engineering research. Basic research is a part of every new product, every new medical device or drug, and every new technology.

In October 2015, more than 300 leading organizations from American industry, higher education, science and engineering organizations signed a call to action urging the Congress to take steps to ensure that the United States remains the global innovation leader. Included in this call to action is a request to provide steady and sustained real growth in funding of at least four percent for basic scientific research at the National Science Foundation.

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If our nation does not act to increase its scientific research expenditures, we are in danger of losing the advantage America has long held as an engine of innovation that generates new discoveries and stimulates job growth. America's economic competitors are moving aggressively to increase their own investments.

A foundation and fundamental understanding of science, technology, engineering, and mathematics (STEM) is vitally important as we educate the next generation of leaders to compete in the global economy. Demand for highly educated and highly trained professionals in STEM and health care-related fields are at an all-time high. The United States must produce one million more STEM professionals in the next decade to keep up with workforce needs in growing STEM fields. We cannot afford to fall behind in STEM education.

The NSF is the only federal agency specifically responsible for supporting essential education and research across all science and engineering fields—a role that is vital to economic competitiveness and to cultivating a workforce capable of keeping pace with the global economy. Nearly one out of every four basic research projects at colleges and universities across the United States is supported by the NSF. The NSF awards the majority of its budget on a peer-reviewed, competitive basis to individuals and small groups of researchers at public and private institutions of higher learning through approximately 11,000 new grant awards per year.

Awards from the NSF enable faculty and students to access the resources they need and support the necessary infrastructure and tools to address some of our society's most pressing concerns. In many cases, the basic research facilitated by the NSF is then commercialized by domestic companies, benefiting the private sector and the U.S. economy. The applications of NSF research have helped many businesses create jobs by developing new products from advanced radar systems and next generation high definition videoconferencing, to more efficient and affordable solar energy materials and genetically engineered tissues for medical procedures.

Therefore, we urge you to include \$7.564 billion for the NSF in the Senate bill in support of the balanced research and education portfolio proposed in the Fiscal Year 2017 budget request.

Thank you in advance for your consideration of our request.

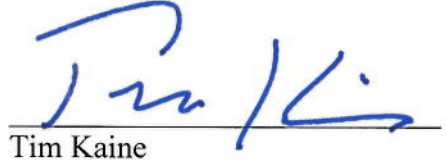
Sincerely,

  
Edward J. Markey

  
Richard J. Durbin

The Honorable Thad Cochran  
The Honorable Barbara A. Mikulski  
The Honorable Richard C. Shelby  
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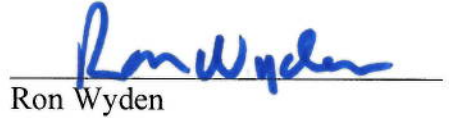
  
Tammy Baldwin

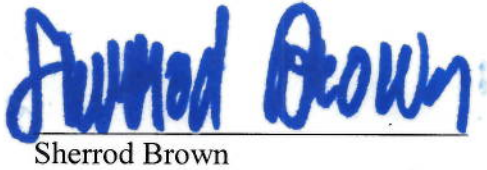
  
Tim Kaine

  
Elizabeth Warren

  
Debbie Stabenow

  
Mark R. Warner

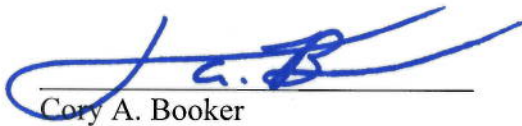
  
Ron Wyden

  
Sherrod Brown

  
Brian Schatz

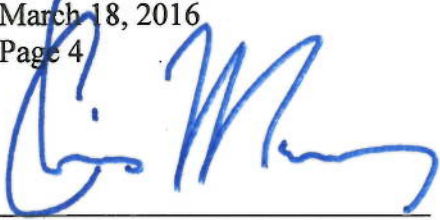
  
Barbara Boxer

  
Al Franken

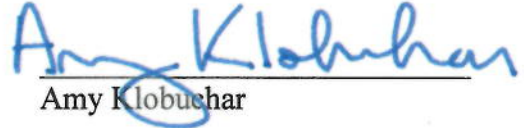
  
Cory A. Booker

  
Christopher A. Coons

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Christopher S. Murphy



Amy Klobuchar



Benjamin L. Cardin



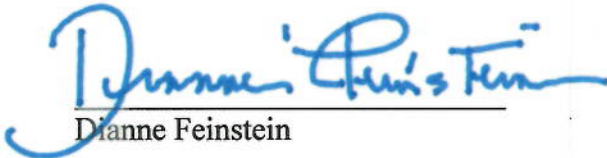
Maria Cantwell



Mazie K. Hirono



Robert Menendez



Dianne Feinstein



Sheldon Whitehouse



Jeanne Shaheen



Charles E. Schumer



Kirsten Gillibrand