March 20, 2019

The Honorable Jerry Moran  The Honorable Jeanne Shaheen
Chairman  Ranking Member
Subcommittee on Commerce, Justice, Subcommittee on Commerce, Justice,
Science and Related Agencies Science and Related Agencies
Committee on Appropriations Committee on Appropriations
Room S-128, The Capitol Room S-128, The Capitol
Washington, DC 20510 Washington, DC 20510

The Honorable José Serrano  The Honorable Robert Aderholt
Chairman  Ranking Member
Subcommittee on Commerce, Justice, Subcommittee on Commerce, Justice,
Science and Related Agencies Science and Related Agencies
Committee on Appropriations Committee on Appropriations
H-307, The Capitol 1016 Longworth HOB
Washington, DC 20515 Washington, DC 20515

Dear Chairman Moran, Ranking Member Shaheen, Chairman Serrano and Ranking Member Aderholt:

The undersigned professional societies – representing more than 75,000 scientists and engineers – write to express our strong support for the National Science Foundation (NSF) in fiscal year (FY) 2020. We appreciate the 4 percent increase to NSF’s budget in FY 2019 provided by the recently passed Consolidated Appropriations Act. This increase demonstrates Congress’s clear understanding of NSF’s vital role in our scientific ecosystem – supporting a leading-edge, broad-scope research portfolio, state-of-the-art facilities and education programs that help prepare our nation’s STEM workforce. Looking forward, as our counterparts across Europe and Asia increase their R&D investments, we urge Congress to help maintain our global competitiveness by continuing to prioritize NSF during the appropriations process. Specifically, we request the agency be provided a minimum of 4 percent real growth in its FY 2020 budget.

NSF – established by Congress in 1950 with a mission “to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense; and for other purposes” – is a pillar of our nation’s scientific enterprise, supporting more than one quarter of all federally funded fundamental research conducted at U.S. academic institutions. NSF receives nearly 50,000 project proposals annually, using a rigorous and objective merit review process to determine which proposals are most promising. This process has proven to be effective – 236 Nobel Prize winners have previously received NSF funding.

NSF is the only federal agency that invests in fundamental, early stage research across all non-medical fields of science and engineering, advancing our scientific knowledge and understanding across many disciplines. The high-risk, high-reward projects funded by NSF, which have the potential to both advance our knowledge and benefit society, are beyond the scope of what industry can or will support. NSF supports pioneering researchers in frontier fields, including quantum information science, artificial intelligence and gravitational wave detection. NSF-sponsored research projects have resulted in discoveries leading to new, paradigm-shifting technologies and companies, spawning new industries and strengthening the U.S. economy. And while NSF does not directly fund medical research, the agency’s research portfolio includes projects – such as the foundational research that led to MRI techniques and brain imaging technology – that have yielded critical insights that enhance the quality of life for Americans.
NSF also supports science and engineering education at all levels, from pre-kindergarten to graduate school and beyond, helping to ensure American companies have a pipeline of talent ready to work in a world increasingly dependent on science and technology. Through the Graduate Research Fellowship Program, for example, NSF supports approximately 2,000 new students each year who are early in their graduate training. NSF-sponsored research and education programs strengthen our nation’s scientific knowledge base today and help prepare our scientists and engineers of tomorrow. Along with fostering this STEM talent, the broader impacts of NSF-funded research include the benefits of improving societal well-being, engaging a wider audience for science, and connecting with international counterparts to address global issues.

For more than half a century, the U.S. government’s commitment to funding early stage research – through NSF and other federal science agencies – at our colleges, universities and research institutions has helped ensure our position as a global leader in science, technology and innovation. With other nations across Europe and Asia taking note of America’s success and bolstering their own national investments in science and technology, we must build on Congress’s bipartisan commitment to scientific research demonstrated in recent years.

We recognize the need for thoughtful and measured federal spending and robust funding for NSF is an essential investment for strengthening the U.S. economy. NSF helps enhance our national security, secure the future of American innovation, and improve the quality of life for Americans. For these reasons, we urge your strong support of NSF throughout the FY 2020 appropriations process and request the agency receive an increase of at least 4 percent real growth in its budget.

Thank you for your consideration of our views, and we look forward to working with you and your colleagues throughout the appropriations process.

Sincerely,

American Physical Society (APS)
The international society for optics and photonics (SPIE)
The Optical Society (OSA)

cc: Senator Shelby, Senator Leahy, Representative Lowey, Representative Granger