

Congress of the United States
Washington, DC 20515

April 29, 2022

The Honorable Matt Cartwright
Chairman
Subcommittee on Commerce, Justice,

Science, and Related Agencies
H-310, The Capitol
Washington, D.C. 20515

The Honorable Robert B. Aderholt
Ranking Member
Subcommittee on Commerce, Justice,

Science, and Related Agencies
1036 Longworth House Office Building
Washington, D.C. 20515

Dear Chairman Cartwright and Ranking Member Aderholt:

We write to respectfully request that the National Science Foundation (NSF) receive an appropriation of at least **\$11 billion** in the Fiscal Year (FY) 2023 Commerce, Justice, Science, and Related Agencies Appropriations bill.

The NSF is an independent federal agency created by Congress to promote the progress of science, secure the national defense, and to advance the nation's health, prosperity, and welfare. It is also the only federal research agency that supports fundamental research in these important fields – biology, computer science, economics, engineering, educational research, geosciences, mathematics, and social and behavioral sciences. The continued success of America's innovation enterprise is dependent upon scientific research and educational programs supported by NSF.

On March 16, the Foundation officially launched a new Directorate for Technology, Innovation, and Partnerships (TIP). Last year, the House voted in a bipartisan manner in support of the NSF for the Future Act, underscoring the urgency of investments in the new Directorate to bolster our nation's competitiveness and national security. Funding for TIP will position NSF to drive innovation in industries and technologies of the future, such as reliable clean energy, quantum science, artificial intelligence, supercomputing, advanced materials and manufacturing, and cybersecurity.

Funding for NSF in FY2023 must account for this growing role of the Foundation in advancing America's global competitiveness. NSF needs additional resources to ensure that the U.S. remains the world leader in research, and to drive the economic innovation that will underlie the global economy of the 21st century. According to the National Science Board's (NSB) 2022 Science and Engineering Indicators, "the annual increase of China's R&D, averaging 10.6% annually from 2010 to 2019, continues to greatly exceed that of the United States, with an annual average of 5.4% from 2010 to 2019. Consequently, the share of global R&D performed by the United States declined from 29% in 2010 to 27% in 2019, whereas the share by China increased from 15% to 22%." (<https://nces.nsf.gov/pubs/nsb20221/u-s-and-global-research-and-development>)

The success of TIP and progress in these new priority areas rely on NSF's core research and education programs that lay the groundwork for discovery and innovation. One out of every four

Chairman Cartwright and Ranking Member Aderholt

April 29, 2022

Page 2


basic research projects at higher learning institutions across the United States is supported by the NSF and the Foundation's merit review process is the international gold-standard. Nonetheless, in fiscal year 2020, almost \$4 billion worth of proposals were rated very good but were declined due to inadequate resources. NSF plays a crucial role in supporting the education and development of the STEM workforce that has long driven America's success. "The U.S. STEM workforce—comprised of over 36 million people in diverse occupations that require STEM knowledge and expertise—constitutes 23% of the total U.S. workforce," according to the NSB. (<https://nces.nsf.gov/pubs/nsb20221/u-s-and-global-stem-education-and-labor-force>) NSF education programs, including K-12 STEM education, are key to developing our domestic STEM workforce.

To fully capitalize on the wealth of talent in our country, NSF needs additional funding for programs, such as NSF INCLUDES, that develop diverse STEM talent across geographic, gender, racial, and ethnic lines. The Established Program to Stimulate Competitive Research (EPSCoR) is a vital tool to expand the geography of innovation. By improving research infrastructure and increasing the capability of scientists to compete for funding, NSF EPSCoR supports research and builds pathways to the STEM workforce in states and territories that have historically received a smaller share of funding. These programs are important levers to ensure that the benefits of investing in American competitiveness are reaped by all Americans.

For these reasons, we encourage you to provide **at least \$11 billion** for the National Science Foundation in FY2023. This amount is the minimum level of funding needed to ensure future generations are prepared to propel our nation's continued standing as a global innovation hub and the world economic leader.

Thank you very much.

Very truly yours,



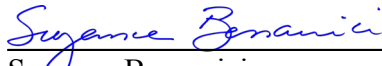
G. K. Butterfield
Member of Congress



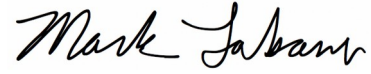
David B. McKinley P.E.
Member of Congress



Eric Swalwell
Member of Congress



Suzanne Bonamici
Member of Congress



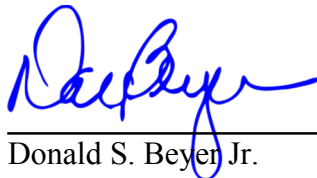
MARK TAKANO
Member of Congress



Tom O'Halleran
Member of Congress



Lucy McBath
Member of Congress



Donald S. Beyer Jr.
Member of Congress



Stacey E. Plaskett
Member of Congress



Jan Schakowsky
Member of Congress



Antonio Delgado
Member of Congress



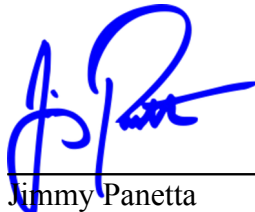
Gwen S. Moore
Member of Congress



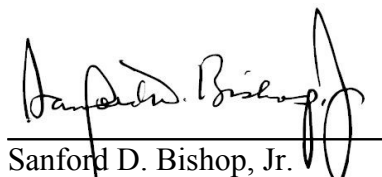
Anthony G. Brown
Member of Congress



Bobby L. Rush
Member of Congress



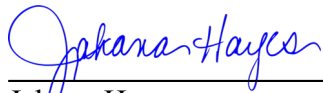
Jimmy Panetta
Member of Congress



Sanford D. Bishop, Jr.
Member of Congress



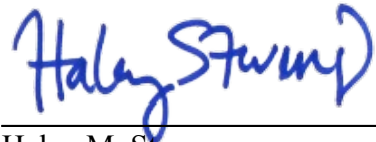
Peter A. DeFazio
Member of Congress



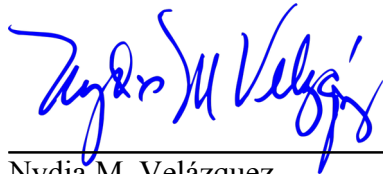
Jahana Hayes
Member of Congress



Diana DeGette
Member of Congress



Haley M. Stevens
Member of Congress



Nydia M. Velázquez
Member of Congress



Brian Higgins
Member of Congress



Eleanor Holmes Norton
Member of Congress



Brian Fitzpatrick
Member of Congress



Joyce Beatty
Member of Congress



Dwight Evans
Member of Congress



Mary Gay Scanlon
Member of Congress



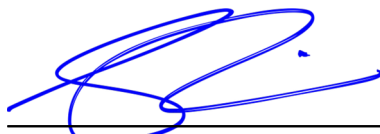
Pramila Jayapal
Member of Congress



David N. Cicilline
Member of Congress



André Carson
Member of Congress



Sharice L. Davids
Member of Congress



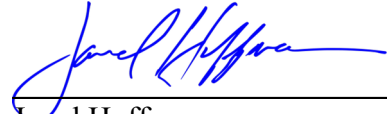
John Katko
Member of Congress



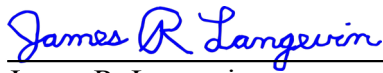
Bill Foster
Member of Congress



Gregorio Kilili Camacho
Sablan
Member of Congress



Jared Huffman
Member of Congress



James R. Langevin
Member of Congress



Sean Casten
Member of Congress



Al Lawson
Member of Congress



Mark DeSaulnier
Member of Congress



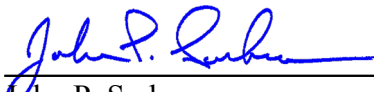
Dean Phillips
Member of Congress



Shontel M. Brown
Member of Congress



Earl L. "Buddy" Carter
Member of Congress



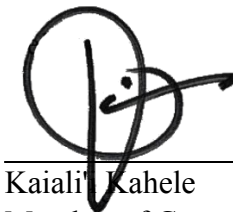
John P. Sarbanes
Member of Congress



Peter Welch
Member of Congress



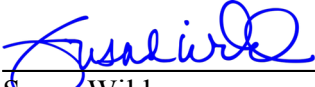
Jenniffer González-Colón
Member of Congress



Kaiuli Kahele
Member of Congress



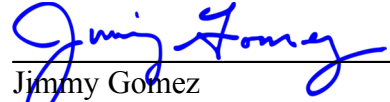
Henry C. "Hank" Johnson, Jr.
Member of Congress



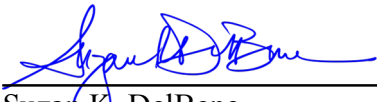
Susan Wild
Member of Congress



Tom Malinowski
Member of Congress



Jimmy Gomez
Member of Congress



Suzan K. DelBene
Member of Congress



Vicente Gonzalez
Member of Congress



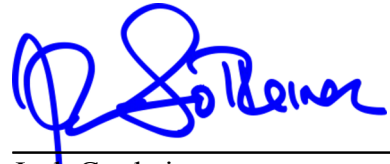
Paul D. Tonko
Member of Congress



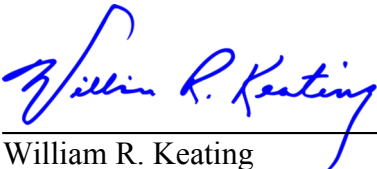
Jerry McNerney
Member of Congress



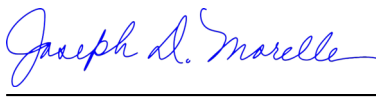
Mike Levin
Member of Congress



Josh Gottheimer
Member of Congress



William R. Keating
Member of Congress



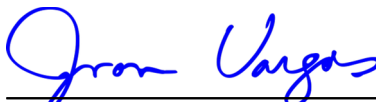
Joseph D. Morelle
Member of Congress



Nicole Malliotakis
Member of Congress



Stephen F. Lynch
Member of Congress



Juan Vargas
Member of Congress



Carolyn B. Maloney
Member of Congress



Donald M. Payne, Jr.
Member of Congress



Deborah K. Ross
Member of Congress



Jim Costa
Member of Congress



James P. McGovern
Member of Congress



Nikema Williams
Member of Congress



David Scott
Member of Congress



Lori Trahan
Member of Congress



Chris Pappas
Member of Congress



Ron Kind
Member of Congress



Marilyn Strickland
Member of Congress



Glenn "GT" Thompson
Member of Congress



Lizzie Fletcher
Member of Congress



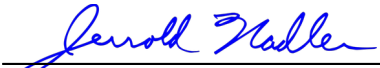
Robin L. Kelly
Member of Congress



Chellie Pingree
Member of Congress



Thomas R. Suozzi
Member of Congress



Ferrol Nadler
Member of Congress



Seth Moulton
Member of Congress



Doris Matsui
Member of Congress



Kathleen M. Rice
Member of Congress



Troy Carter
Member of Congress



Joe Courtney
Member of Congress



Ann McLane Kuster
Member of Congress



Brendan F. Boyle
Member of Congress



Adam Smith
Member of Congress



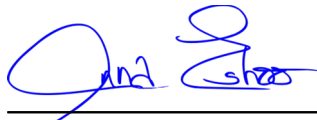
Cheri Bustos
Member of Congress



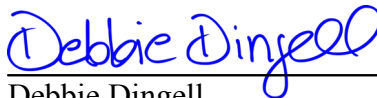
Steve Cohen
Member of Congress



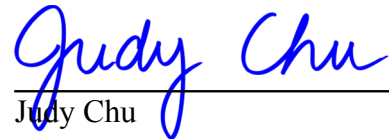
Tony Cárdenas
Member of Congress



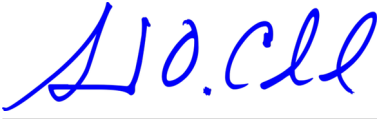
Anna G. Eshoo
Member of Congress



Debbie Dingell
Member of Congress



Judy Chu
Member of Congress



Salud Carbajal
Member of Congress



Joe Neguse
Member of Congress



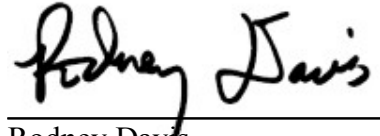
Marc A. Veasey
Member of Congress



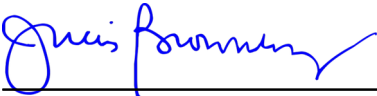
Frank Pallone, Jr.
Member of Congress



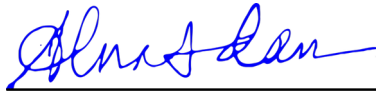
Jim Cooper
Member of Congress



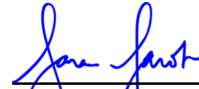
Rodney Davis
Member of Congress



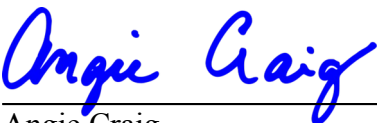
Julia Brownley
Member of Congress



Alma S. Adams, Ph.D.
Member of Congress



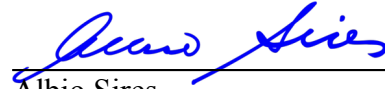
Sara Jacobs
Member of Congress



Angie Craig
Member of Congress



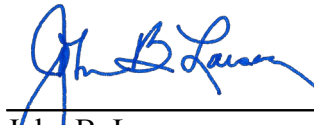
Chrissy Houlahan
Member of Congress



Albio Sires
Member of Congress



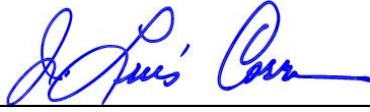
Jackie Speier
Member of Congress



John B. Larson
Member of Congress



Andy Kim
Member of Congress



J. Luis Correa
Member of Congress



Ruben Gallego
Member of Congress



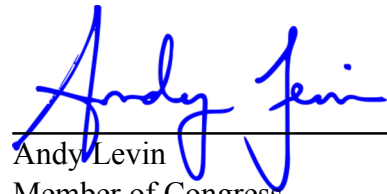
Andy Barr
Member of Congress



Scott H. Peters
Member of Congress



Ayanna Pressley
Member of Congress



Andy Levin
Member of Congress



Jamie Raskin
Member of Congress



Zoe Lofgren
Member of Congress



Ro Khanna
Member of Congress



Jake Auchincloss
Member of Congress



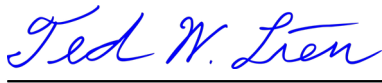
Elissa Slotkin
Member of Congress



Danny K. Davis
Member of Congress



Madeleine Dean
Member of Congress



Ted W. Lieu
Member of Congress



Nanette Diaz Barragán
Member of Congress



Marie Newman
Member of Congress



Lisa Blunt Rochester
Member of Congress



Gerald E. Connolly
Member of Congress



Bill Pascrell, Jr.
Member of Congress



Kim Schrier, M.D.
Member of Congress



Peter Meijer
Member of Congress



Karen Bass
Member of Congress



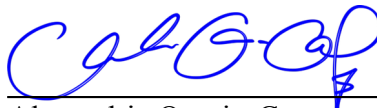
Conor Lamb
Member of Congress



John Yarmuth
Member of Congress



Ted Deutch
Member of Congress



Alexandria Ocasio-Cortez
Member of Congress



Colin Z. Allred
Member of Congress



Mike Doyle
Member of Congress



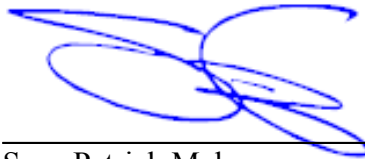
Elaine G. Luria
Member of Congress



A. Donald McEachin
Member of Congress



Rick Larsen
Member of Congress



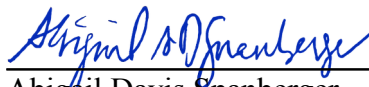
Sean Patrick Maloney
Member of Congress



Darin LaHood
Member of Congress



Adam B. Schiff
Member of Congress



Abigail Davis Spanberger
Member of Congress



Frederica S. Wilson
Member of Congress



Donald Norcross
Member of Congress



Adam Kinzinger
Member of Congress



Emanuel Cleaver, II
Member of Congress



Jesús G. "Chuy" García
Member of Congress



Jason Crow
Member of Congress



Katie Porter
Member of Congress



Mikie Sherrill
Member of Congress



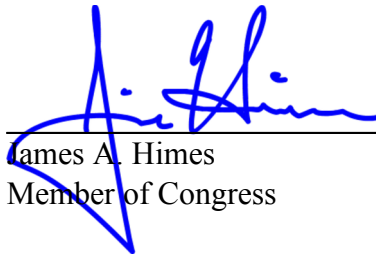
Alan S. Lowenthal
Member of Congress



Ilhan Omar
Member of Congress



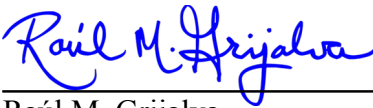
John Garamendi
Member of Congress



James A. Himes
Member of Congress



Robert C. "Bobby" Scott
Member of Congress



Raúl M. Grijalva
Member of Congress



Darren Soto
Member of Congress



Al Green
Member of Congress



Kathy Manning
Member of Congress



Anthony Gonzalez
Member of Congress



Jamaal Bowman, Ed.D.
Member of Congress

