

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

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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,



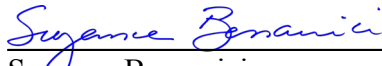
G. K. Butterfield
Member of Congress



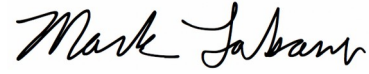
David B. McKinley P.E.
Member of Congress



Eric Swalwell
Member of Congress



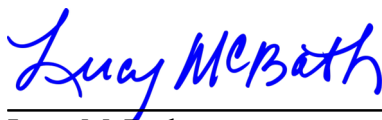
Suzanne Bonamici
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MARK TAKANO
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Tom O'Halleran
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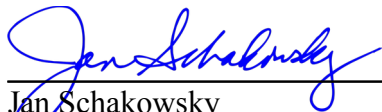
Lucy McBath
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Donald S. Beyer Jr.
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Stacey E. Plaskett
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Jan Schakowsky
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Antonio Delgado
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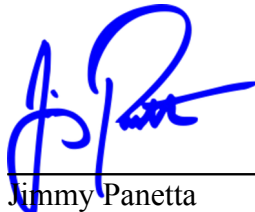
Gwen S. Moore
Member of Congress



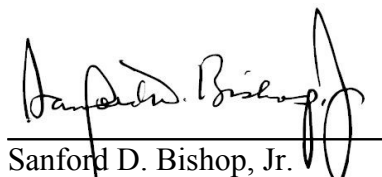
Anthony G. Brown
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Bobby L. Rush
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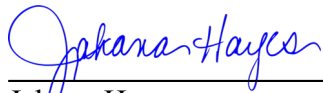
Jimmy Panetta
Member of Congress



Sanford D. Bishop, Jr.
Member of Congress



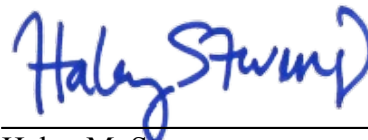
Peter A. DeFazio
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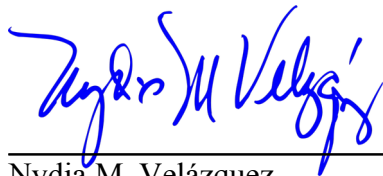
Jahana Hayes
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Diana DeGette
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Haley M. Stevens
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Nydia M. Velázquez
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Brian Higgins
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Eleanor Holmes Norton
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Brian Fitzpatrick
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Joyce Beatty
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Dwight Evans
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Mary Gay Scanlon
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Pramila Jayapal
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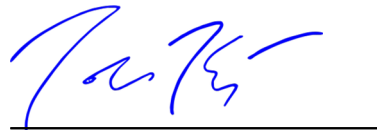
David N. Cicilline
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André Carson
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Sharice L. Davids
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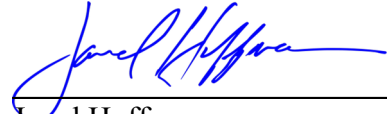
John Katko
Member of Congress



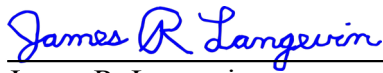
Bill Foster
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Gregorio Kilili Camacho
Sablan
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Jared Huffman
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James R. Langevin
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Sean Casten
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Al Lawson
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Mark DeSaulnier
Member of Congress



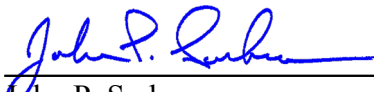
Dean Phillips
Member of Congress



Shontel M. Brown
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Earl L. "Buddy" Carter
Member of Congress



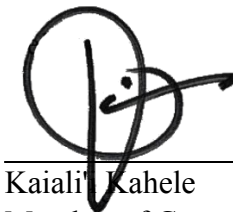
John P. Sarbanes
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Peter Welch
Member of Congress



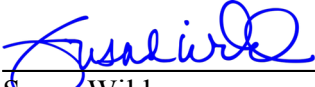
Jenniffer González-Colón
Member of Congress



Kaiuli Kahele
Member of Congress



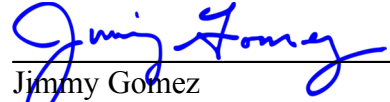
Henry C. "Hank" Johnson, Jr.
Member of Congress



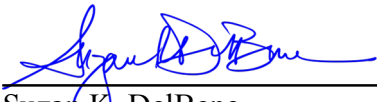
Susan Wild
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Tom Malinowski
Member of Congress



Jimmy Gomez
Member of Congress



Suzan K. DelBene
Member of Congress



Vicente Gonzalez
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Paul D. Tonko
Member of Congress



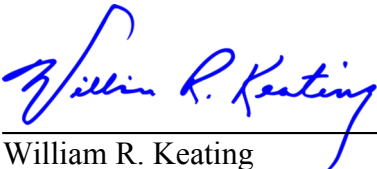
Jerry McNerney
Member of Congress



Mike Levin
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Josh Gottheimer
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William R. Keating
Member of Congress



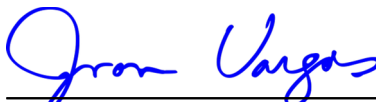
Joseph D. Morelle
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Chris Pappas
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Ron Kind
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Marilyn Strickland
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Glenn "GT" Thompson
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Lizzie Fletcher
Member of Congress



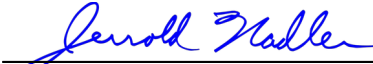
Robin L. Kelly
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Chellie Pingree
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Thomas R. Suozzi
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Doris Matsui
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Troy Carter
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Joe Courtney
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Ann McLane Kuster
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Brendan F. Boyle
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Adam Smith
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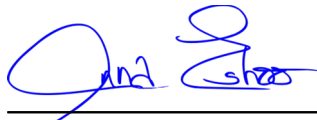
Cheri Bustos
Member of Congress



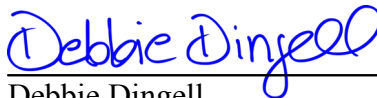
Steve Cohen
Member of Congress



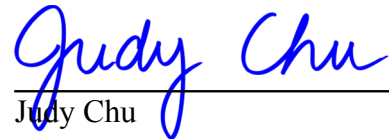
Tony Cárdenas
Member of Congress



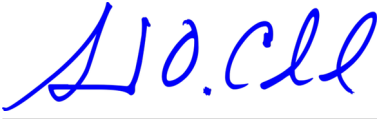
Anna G. Eshoo
Member of Congress



Debbie Dingell
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Judy Chu
Member of Congress



Salud Carbajal
Member of Congress



Joe Neguse
Member of Congress



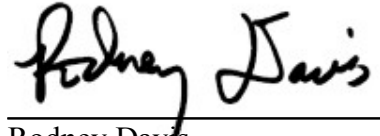
Marc A. Veasey
Member of Congress



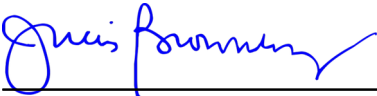
Frank Pallone, Jr.
Member of Congress



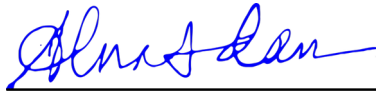
Jim Cooper
Member of Congress



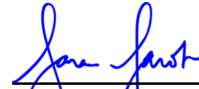
Rodney Davis
Member of Congress



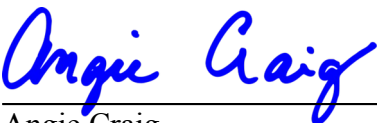
Julia Brownley
Member of Congress



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



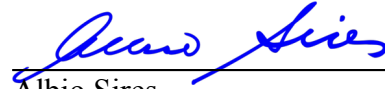
Sara Jacobs
Member of Congress



Angie Craig
Member of Congress



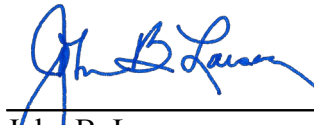
Chrissy Houlahan
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Albio Sires
Member of Congress



Jackie Speier
Member of Congress



John B. Larson
Member of Congress



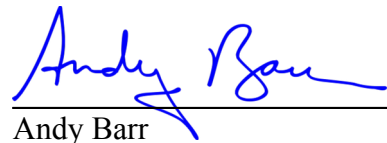
Andy Kim
Member of Congress



J. Luis Correa
Member of Congress



Ruben Gallego
Member of Congress



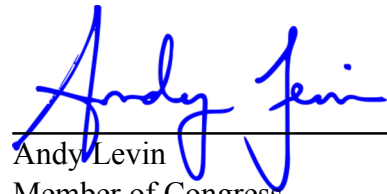
Andy Barr
Member of Congress



Scott H. Peters
Member of Congress



Ayanna Pressley
Member of Congress



Andy Levin
Member of Congress



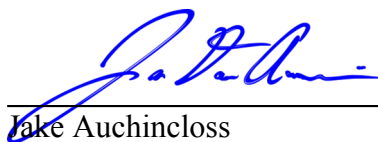
Jamie Raskin
Member of Congress



Zoe Lofgren
Member of Congress



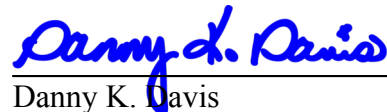
Ro Khanna
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Jake Auchincloss
Member of Congress



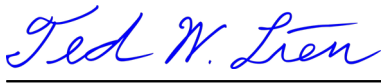
Elissa Slotkin
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Danny K. Davis
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Madeleine Dean
Member of Congress



Ted W. Lieu
Member of Congress



Nanette Diaz Barragán
Member of Congress



Marie Newman
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Lisa Blunt Rochester
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Gerald E. Connolly
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Bill Pascrell, Jr.
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Kim Schrier, M.D.
Member of Congress



Peter Meijer
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Karen Bass
Member of Congress



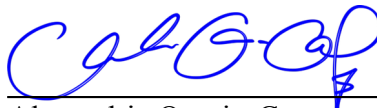
Conor Lamb
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John Yarmuth
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Ted Deutch
Member of Congress



Alexandria Ocasio-Cortez
Member of Congress



Colin Z. Allred
Member of Congress



Mike Doyle
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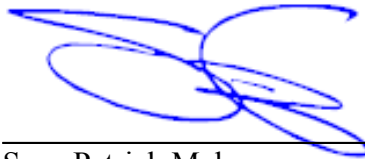
Elaine G. Luria
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A. Donald McEachin
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Rick Larsen
Member of Congress



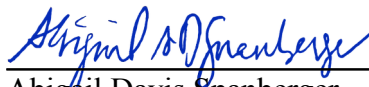
Sean Patrick Maloney
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Darin LaHood
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Abigail Davis Spanberger
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Frederica S. Wilson
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Jesús G. "Chuy" García
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Jason Crow
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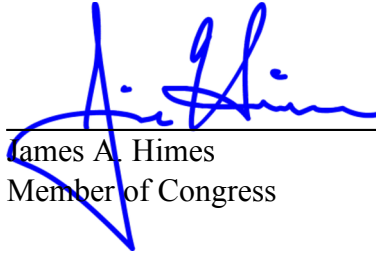
Alan S. Lowenthal
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Ilhan Omar
Member of Congress



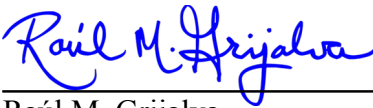
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James A. Himes
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Robert C. "Bobby" Scott
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Raúl M. Grijalva
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Darren Soto
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Al Green
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Kathy Manning
Member of Congress



Anthony Gonzalez
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