

December 18, 2015

The Honorable Harold Rogers  
2406 Rayburn House Office Building  
Washington, D.C. 20515

The Honorable Thad Cochran  
113 Dirksen Senate Office Building  
Washington, D.C. 20510

The Honorable Nita Lowey  
2365 Rayburn House Office Building  
Washington, D.C. 20515

The Honorable Barbara Mikulski  
503 Hart Senate Office Building  
Washington, D.C. 20510

On behalf of the undersigned coalitions, which represent over 500 combined member organizations—incorporating the voices of industry, scientists, and higher education in the United States—we **write to thank the Congress for making strong investments in America’s innovation ecosystem one of its highest priorities.** The FY 2016 omnibus appropriations bill would increase federal research funding by 5.4 percent above FY 2015 levels, providing an even larger increase than the Bipartisan Budget Act provided for discretionary spending. This robust investment in federal research provides much needed fuel for the engine of the American economy, our innovation ecosystem.

By providing real growth for federal investments in research, you have made an important step toward “renewing the federal commitment to scientific discovery,” one of several critical steps outlined in the statement *Innovation: An American Imperative* (see attached) recently endorsed by over 300 organizations from all fifty states representing American industry, higher education, science, and engineering, and a group of senior corporate leaders.

We look forward to continuing to work with you to ensure our nation’s economy, health, and national security will prosper for many years in the future.

Sincerely,

Dustin Todd  
Co-Chair, **Task Force on American Innovation**  
Semiconductor Industry Association

*The Task Force on American Innovation (TFAI) is an alliance of America’s leading companies and business associations, research university associations, and scientific societies that advocates on behalf of federal funding of basic research in the physical sciences and engineering.*

Nick Saab  
Co-Chair, **Coalition for Aerospace and Science**  
Lewis-Burke Associates LLC

Frank Slazer  
Co-Chair, **Coalition for Aerospace and Science**  
Aerospace Industries Association

*The Coalition for Aerospace and Science (CAS) is an alliance of over 50 industry, university and science organizations united in our support for robust and sustained federal funding for the National Aeronautics and Space Administration (NASA).*

John Latini  
Chair, **Coalition for National Security Research**  
Pennsylvania State University

*The Coalition for National Security Research is a broad-based coalition of 74 members including industry, research universities and institutes, and scientific and professional associations committed to a strong Defense Science and Technology Program.*

Paul Doucette  
Co-Chair, **Energy Sciences Coalition**  
Battelle

Chris Carter  
Co-Chair, **Energy Sciences Coalition**  
University of California

*The Energy Sciences Coalition (ESC) is a broad based coalition of organizations representing scientists, engineers and mathematicians in universities, industry and national laboratories who are committed to supporting and advancing the scientific research programs of the U.S. Department of Energy (DOE) Office of Science.*

Sam Rankin  
Chair, **Coalition for National Science Funding**  
American Mathematical Society

*The Coalition for National Science Funding (CNSF) is an alliance of over 140 professional organizations, universities and businesses united by a concern for the future vitality of the national science, mathematics, and engineering enterprise.*

Jack Cline  
President-Elect, **The Science Coalition**  
University of Kansas

*The Science Coalition a nonprofit, nonpartisan organization of more than 60 of the nation's leading public and private research universities that is dedicated to sustaining the federal government's investment in basic scientific research as a means to stimulate the economy, spur innovation and drive America's global competitiveness.*

Jennifer Poulakidas  
Co-President, **United for Medical Research**  
Association of Public and Land-grant Universities

Tim Fenton  
Co-President, **United for Medical Research**  
Thermo Fisher Scientific

David Pugach  
Co-President, **United for Medical Research**  
American Cancer Society Cancer Action Network, Inc.

*United for Medical Research (UMR) is a coalition of leading research institutions, patient and health advocates, and private industry that have joined together to seek steady increases in funding for the National Institutes of Health.*

Juliane Baron  
Chair, **Friends of the Institute for Education Sciences**  
American Educational Research Association

*The Friends of the Institute of Education Sciences is support the critical research, data, statistics and evaluation programs at IES. Our mission is to advance the objectives of IES and encourage federal investment to conduct the highest quality education research, data collection, evaluations and dissemination at IES.*

Karl Anderson  
Co-chair, **Agriculture and Food  
Research Initiative Coalition**  
American Society of Agronomy,  
Crop Science Society of America,  
Soil Science Society of America

Meghan O'Brien  
Co-chair, **Agriculture and Food  
Research Initiative Coalition**  
American Society for Microbiology

Juli Obudzinski  
Co-chair, **Agriculture and Food  
Research Initiative Coalition**  
National Sustainable Agriculture  
Coalition

*The Agriculture and Food Research Initiative (AFRI) Coalition is a coalition of scientific societies and science advocacy organizations who support full appropriation of the Agriculture and Food Research Initiative (AFRI) competitive grants program over time.*

R. Thomas Van Arsdall  
Executive Director, **National Coalition for Food and Agricultural Research**  
Van Arsdall and Associates

*The National Coalition for Food and Agricultural Research (NC-FAR) is a nonprofit, nonpartisan, consensus-based and customer-led coalition that serves as a forum and a unified voice in support of sustaining and increasing public investment at the national level in food and agricultural research, extension and education.*

Alison Mize  
Co-Chair, **Biological and Ecological Sciences  
Coalition**  
Ecological Society of America

Robert Gropp, Ph.D.  
Co-Chair, **Biological and Ecological Sciences  
Coalition**  
American Institute of Biological Sciences

*The Biological and Ecological Sciences Coalition (BESC) is an alliance of scientific and professional societies, associations, and academic institutions that are united by a goal to enhance awareness and appreciation for the biological and ecological sciences on Capitol Hill, at the White House, and in federal agencies.*

Julie Palakovich Carr  
Co-Chair, **USGS Coalition**  
American Institute of Biological Sciences

Elizabeth Duffy  
Co-Chair, **USGS Coalition**  
The Federal Affairs Office

*The USGS Coalition The USGS Coalition is an alliance of over 70 organizations united by a commitment to the continued vitality of the United States Geological Survey (USGS) and its ability to provide critical data and services to the nation.*

David Moore  
Executive Director, **Ad Hoc Group for Medical Research**  
Association of American Medical Colleges

*The Ad Hoc Group for Medical Research is a coalition of patient and voluntary health groups, medical and scientific societies, academic and research organizations, and industry that support enhancing the federal investment in the biomedical, behavioral, and population-based research conducted and supported by the NIH.*

CC: The Honorable Mitch McConnell, Senate Majority Leader  
The Honorable Harry Reid, Senate Minority Leader  
The Honorable Richard Shelby  
The Honorable Lamar Alexander  
The Honorable Susan Collins  
The Honorable Lisa Murkowski  
The Honorable Lindsey Graham  
The Honorable Mark Kirk  
The Honorable Roy Blunt  
The Honorable Jerry Moran  
The Honorable John Hoeven  
The Honorable John Boozman  
The Honorable Shelley Capito  
The Honorable Bill Cassidy  
The Honorable James Lankford  
The Honorable Steve Daines  
The Honorable Patrick Leahy  
The Honorable Patty Murray  
The Honorable Dianne Feinstein  
The Honorable Dick Durbin  
The Honorable Jack Reed  
The Honorable Jon Tester  
The Honorable Tom Udall  
The Honorable Jeanne Shaheen  
The Honorable Jeff Merkley  
The Honorable Christopher Coons  
The Honorable Brian Schatz  
The Honorable Tammy Baldwin  
The Honorable Chris Murphy

The Honorable Paul Ryan, Speaker of the House of Representatives  
The Honorable Nancy Pelosi, Minority Leader of the House of Representatives  
The Honorable Rodney P. Frelinghuysen  
The Honorable Robert B. Aderholt  
The Honorable Kay Granger  
The Honorable Michael K. Simpson  
The Honorable John Culberson  
The Honorable Ander Crenshaw  
The Honorable John R. Carter  
The Honorable Ken Calvert  
The Honorable Tom Cole  
The Honorable Mario Diaz-Balart  
The Honorable Charles W. Dent  
The Honorable Tom Graves  
The Honorable Kevin Yoder  
The Honorable Steve Womack  
The Honorable Jeff Fortenberry  
The Honorable Tom Rooney  
The Honorable Chuck Fleischmann  
The Honorable Jaime Herrera Beutler  
The Honorable David Joyce  
The Honorable David Valadao

The Honorable Andy Harris, MD  
The Honorable Martha Roby  
The Honorable Mark Amodei  
The Honorable Chris Stewart  
The Honorable Scott Rigell  
The Honorable David Jolly  
The Honorable David Young  
The Honorable Evan Jenkins  
The Honorable Steven Palazzo  
The Honorable Marcy Kaptur  
The Honorable Peter J. Visclosky  
The Honorable José E. Serrano  
The Honorable Rosa L. DeLauro  
The Honorable David E. Price  
The Honorable Lucille Roybal-Allard  
The Honorable Sam Farr  
The Honorable Chaka Fattah  
The Honorable Sanford D. Bishop  
The Honorable Barbara Lee  
The Honorable Michael M. Honda  
The Honorable Betty McCollum  
The Honorable Steve Israel  
The Honorable Tim Ryan  
The Honorable C.A. Dutch Ruppersberger  
The Honorable Debbie Wasserman Schultz  
The Honorable Henry Cuellar  
The Honorable Chellie Pingree  
The Honorable Mike Quigley  
The Honorable Derek Kilmer

# INNOVATION: AN AMERICAN IMPERATIVE

*A call to action by American industry, higher education, science, and engineering leaders urging Congress to enact policies and make investments that ensure the United States remains the global innovation leader.*

Our nation knows what it takes to innovate: a sustained commitment to scientific research, a world-class workforce, and an economic climate that rewards entrepreneurship and innovation. As the most dynamic and prosperous nation in the world, the United States has long benefitted from policies and investments that have promoted innovation and in turn driven productivity and economic growth, bolstered American trade, ensured our health and national security, and safeguarded the American dream. Our leadership is now at risk because of years of under-prioritizing federal scientific research investments and policies that promote innovation.

Now is not the time to rest on past success. As noted by the American Academy of Arts and Sciences in its 2014 Report *Restoring the Foundation: The Vital Role of Research in Preserving the American Dream*, "There is a deficit between what America is investing and what it should be investing to remain competitive, not only in research but in innovation and job creation." Competitor nations are challenging our leadership by copying our playbook for success. At the same time our nation's support for scientific research and innovation is stagnating. If these trends continue, other countries will soon surpass the United States as the global innovation leader.

We must heed the warnings in the *Restoring the Foundation* report and other salient reports of the past decade and act decisively. In particular, Congress must:

## ***Renew the federal commitment to scientific discovery***

by ending sequestration's deep cuts to discretionary spending caps and providing steady and sustained real growth in funding of at least four percent for basic scientific research at: the National Science Foundation, the National Institutes of Health, the Department of Energy's Office of Science, the Department of Defense, NASA, the National Institute of Standards and Technology, USDA, and NOAA;

## ***Make permanent a strengthened federal R&D tax credit***

as a part of comprehensive tax reform to encourage more private-sector innovation investment here in America instead of in competitor countries;

## ***Improve student achievement in science, technology, engineering, mathematics (STEM)***

through increased funding of proven programs and incentives for science and math teacher recruitment and professional development;

## ***Reform U.S. visa policy***

to welcome and keep highly educated international professionals, particularly those holding STEM degrees from U.S. universities;

## ***Take steps to streamline or eliminate costly and inefficient regulations***

and practices governing federally funded research to help unburden researchers to focus more time on conducting research and training the next generation of scientists, engineers, health care professionals, and business leaders;

## ***Reaffirm merit-based peer review***

as the primary mechanism major federal agencies should employ in making competitive scientific research grants to ensure the most effective use of taxpayer dollars; and

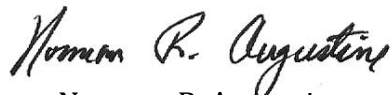
## ***Stimulate further improvements in advanced manufacturing***

through support for programs aimed at accelerating manufacturing innovation and new federal-industry-academic partnerships.

We, the signatories, urge support for these actions to keep the United States the global innovation leader. We stand ready to do our part.



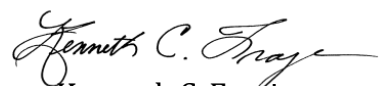
Samuel R. Allen  
Chairman & CEO  
John Deere



Norman R. Augustine  
Co-Chair  
*Restoring the Foundation*



Wes Bush  
Chairman, President & CEO  
Northrop Grumman



Kenneth C. Frazier  
Chairman & CEO  
Merck & Co., Inc



Marillyn A. Hewson  
Chairman, President, & CEO  
Lockheed Martin Corporation



Charles O. Holliday  
Chairman  
Royal Dutch Shell plc



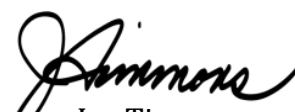
Joseph Jimenez  
CEO  
Novartis



W. James McNerney, Jr.  
Chairman of the Board & CEO  
The Boeing Company



Satya Nadella  
CEO  
Microsoft



Jay Timmons  
President & CEO  
National Association of  
Manufacturers

Academy of Radiology Research  
Acoustical Society of America  
Ad Hoc Group for Medical Research  
Adv. Technical Intelligence Assn.  
Aerospace Industries Association  
Agricultural & Applied Economics Association  
Aizoon Technology Consulting  
AMD  
American Academy of Arts & Sciences  
American Anthropological Association  
American Association for Dental Research  
American Association for the Advancement of Science  
American Association for the Study of Liver Diseases  
American Association of Colleges of Pharmacy  
American Association of Mycobacterial Diseases  
American Association of Petroleum Geologists  
American Association of Physical Anthropologists  
American Association of Physicists in Medicine  
American Association of Physics Teachers  
American Association of State Colleges and Universities  
American Astronomical Society  
American Chemical Society  
American Council on Education  
American Dairy Science Association  
American Dental Education Association  
American Educational Research Association  
American Geophysical Union  
American Geosciences Institute  
American Institute for Medical & Bio. Engineering  
American Institute of Aeronautics and Astronautics  
American Institute of Chemists  
American Institute of Physics  
American Mathematical Society  
American Meteorological Society  
American Physical Society  
American Physiological Society  
American Phytopathological Society  
American Political Science Association  
American Psychological Association  
American Society for Engineering Education  
American Society for Microbiology  
American Society for Nutrition  
American Society of Agronomy  
American Society of Animal Science  
American Society of Plant Biologists  
American Sociological Association  
American Veterinary Medical Association  
Anchorage Economic Development Corporation  
Applied Materials, Inc  
Archaeological Institute of America  
Arizona Nevada Academy of Science (ANAS)  
Arizona State University  
Arkansas Research Alliance  
ASME  
Association for Information Science and Technology  
Association for Psychological Science  
Association for Women in Mathematics  
Association for Women in Science  
Association of American Geographers  
Association of American Medical Colleges  
Association of American Universities  
Association of American Veterinary Medical Colleges  
Association of Independent Research Institutes  
Association of Public and Land-grant Universities  
Association of Research Libraries  
Association of University Technology Managers  
ASTRA, Alliance for Science & Technology Research in America  
Auburn University  
Battelle  
Bay Area Council  
Biophysical Society  
Biotechnology Industry Organization  
Boise State University  
Boston University  
Botanical Society of America  
Brandeis University  
Brown University  
Business-Higher Education Forum  
California Institute of Technology  
California Polytechnic State University  
Carnegie Mellon University  
Cary Institute of Ecosystem Studies  
Case Western Reserve University  
Center for Policy on Emerging Technologies  
Clemson University  
Coalition for Aerospace and Science  
Coalition for National Science Funding  
Coalition for National Security Research  
Colorado School of Mines  
Colorado State University  
Columbia University  
Computing Research Association  
Consortium for Ocean Leadership  
Consortium of Social Science Associations  
Cornell University  
Council of Graduate Schools  
Council of Scientific Society Presidents  
Council on Competitiveness  
Council on Governmental Relations  
Crop Science Society of America  
Delaware State University  
Duke University  
Earthquake Engineering Research Institute  
East Carolina University  
Ecological Society of America  
EDUCAUSE  
Emory University  
Energy Sciences Coalition  
Entomological Society of America  
EPICenter Memphis  
FASS  
Federation of American Societies for Experimental Biology  
Federation of Associations in Behavioral and Brain Sciences  
Florida State University  
Foundation for Science and Disability  
Genetics Society of America  
Geological Society of America  
George Mason University  
Georgia Institute of Technology  
Georgia Regents University  
Georgia Research Alliance  
Georgia State University  
Google  
Greater Boston Chamber of Commerce  
Greater Madison Chamber of Commerce  
Harvard University  
Hawaii Academy of Science  
Hepatitis B Foundation  
Hewlett-Packard Company  
Human Factors and Ergonomics Society  
IBM  
Idaho Academy of Science and Engineering  
IEEE-USA  
Indiana University  
Infineon Technologies Americas Corp.  
Information Technology Industry Council (ITI)  
Innovation Associates  
Institute of Food Technologists  
Intel Corporation  
International Economic Development Council  
International Society for Educational Planning  
International Society for the Systems Sciences  
International Technology and Engineering Educators Assn.  
Iowa State University  
IPC - Association Connecting Electronics Industries  
Jefferson Science Associates LLC  
Kansas State University  
Kent State University  
Kentucky Academy of Science  
Lehigh University  
Linguistic Society of America  
Louisiana State University  
Lowell Observatory  
Maine State Chamber of Commerce  
Massachusetts Institute of Technology  
Materials Research Society  
Mathematical Association of America  
Michigan State University  
Michigan Technological University  
Micron Technology, Inc  
MN-SBIR  
Montana State University  
National Alliance for Eye and Vision Research  
National Association of Colleges and Employers  
National Association of Geoscience Teachers  
National Association of Graduate-Professional Students  
National Association of Marine Laboratories  
National Center for Science Education  
National Center for Technological Literacy- Museum of Science  
National Coalition for Food and Agricultural Research  
National Council for Science and the Environment  
National Defense Industrial Association  
National Ground Water Association  
National Science Education Leadership Association  
National Science Teachers Association  
New Mexico State University  
New York University  
North Carolina Academy of Science  
North Carolina State University  
North Dakota State University  
Northeastern University  
Northern Illinois University  
Ohio University  
Oklahoma Academy of Science  
Oklahoma State University  
ON Semiconductor  
ONAMI  
Oregon State University  
Pace University  
Parapsychological Association  
Penn State University  
Phiston Technologies, Inc.  
Population Association of America  
Portland State University  
Poultry Science Association  
Princeton University  
Qualcomm  
Rensselaer Polytechnic Institute  
Research!America  
Rice University  
Rochester Institute of Technology  
Rutgers, the State University of New Jersey  
SAGE  
Semiconductor Equipment & Materials International (SEMI)  
Semiconductor Industry Association  
Semiconductor Research Corporation  
Silicon Valley Leadership Group  
Small Business Technology Council  
Society for In Vitro Biology  
Society for Industrial and Applied Mathematics  
Society for Industrial and Organizational Psychology  
Society for Neuroscience  
Society of the Study of Evolution  
Society of Toxicology  
Soil Science Society of America  
South Dakota State University  
Southeastern Universities Research Association  
Southern Illinois University System  
SPIE, the international society for optics and photonics  
SRI International  
SSTI  
Stanford University  
State University of New York  
Stillwater Chamber of Commerce  
Stony Brook University  
Supporters of Agricultural Research Foundation  
SURA  
Syracuse University  
Task Force on American Innovation  
Technology Association of Georgia  
TechVision21  
Texas A&M University  
Texas Instruments Incorporated  
Texas Tech University  
The Coalition for the Life Sciences  
The College of William and Mary  
The Electrochemical Society  
The Industrial Research Institute  
The Johns Hopkins University  
The New England Council  
The Ohio State University  
The Optical Society  
The Procter & Gamble Company  
The Science Coalition  
The University of Alabama at Birmingham  
TIES - Teaching Institute for Excellence in STEM  
Tri-City Development Council – Tri-Cities, WA  
Tufts University  
University Economic Development Association  
UNAVCO  
United for Medical Research  
Universities Research Association  
University at Buffalo, State University of New York  
University City Science Center  
University Corporation for Atmospheric Research  
University of Alaska  
University of Alaska Fairbanks  
University of Arizona  
University of Arkansas  
University of California System  
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University of California, Davis  
University of California, Irvine  
University of California, Los Angeles  
University of California, Merced  
University of California, Riverside  
University of California, San Diego  
University of California, San Francisco  
University of California, Santa Barbara  
University of California, Santa Cruz  
University of Central Florida  
University of Cincinnati  
University of Colorado at Colorado Springs  
University of Colorado Boulder  
University of Colorado Denver  
University of Colorado, Anschutz Medical Campus  
University of Connecticut  
University of Delaware  
University of Florida  
University of Georgia  
University of Hawaii  
University of Illinois  
University of Illinois at Chicago  
University of Illinois at Urbana-Champaign  
University of Iowa  
University of Kansas  
University of Louisville  
University of Massachusetts Amherst  
University of Maryland  
University of Michigan  
University of Minnesota  
University of Mississippi  
University of Missouri System  
University of Nebraska  
University of Nevada, Reno  
University of New Hampshire  
University of New Mexico  
University of North Carolina at Chapel Hill  
University of North Carolina System  
University of North Carolina Wilmington (UNCW)  
University of Notre Dame  
University of Oklahoma  
University of Oregon  
University of Pennsylvania  
University of Pittsburgh  
University of Rochester  
University of South Dakota  
University of South Florida  
University of Southern California  
University of Tennessee  
University of Toledo  
University of Vermont  
University of Virginia  
University of Washington  
University of Wisconsin System  
University of Wisconsin-Madison  
University of Wisconsin-Milwaukee  
University of Wyoming  
Utah State University  
Van Fleet & Associates  
Vanderbilt University  
Vermeer Corporation  
Washington State University  
Washington State University, Tri Cities  
Washington University in St. Louis  
Wayne State University  
West Virginia University  
Western Massachusetts Economic Development Council  
Western Michigan University  
Wichita State University  
Woods Hole Oceanographic Institution  
Yale University