Senator Mitch McConnell Senate Majority Leader U.S. Senate

The Honorable Paul Ryan Speaker of the House U.S. House of Representatives Senator Charles Schumer Senate Minority Leader U.S. Senate

Minority Leader Nancy Pelosi Democratic Leader U.S. House of Representatives

## Dear Congressional Leaders:

The undersigned U.S. business, science and engineering, medical and health, and higher education organizations urge you to swiftly complete the FY 2017 appropriations process with robust investments in scientific research.

Our nation's research enterprise is among the most powerful engines for American prosperity. One of the consistent areas of bipartisan agreement over the past 70 years has been the importance of the federal government's role in supporting research and innovation. We urge you to prioritize these investments and reject the Administration-proposed cuts to science as you work to complete FY 2017 appropriations and as you begin to craft the FY 2018 funding bills. We ask you to consider the following in your deliberations:

America's research and development (R&D) enterprise has made our nation the world's preeminent, most effective, and sought-after partner for innovation. It is among the most powerful engines of American prosperity, producing value far beyond the sum of its individual agencies. History confirms that a secure, prosperous, and competitive future is found in research across all fields of science and engineering:

- American physical and life sciences leadership has helped us better understand ourselves and our world, enabling us to improve and lengthen Americans' lives, enhance public health, advance food safety and security, and enhance quality of life.
- Environmental, agricultural and Earth sciences research has allowed state leaders and managers, business owners, and farmers to have access to the best available science for critical decisionmaking that impacts our energy and transportation infrastructure, agriculture sector, and water resources management.
- Defense research has improved the effectiveness of our armed forces and our awareness of growing threats around the world, and saved lives on the battlefield and once soldiers are home.
- Social and behavioral science research has been critical to respond effectively to disasters; enhance intelligence analysis; understand decision-making and its impact on public health and business investments; improve international relations, and effectively educate the STEM workforce.
- Math and computer science research has made the Internet economy possible and improved cybersecurity.
- Material and engineering sciences have improved energy sources, space exploration, bridges and roads, and enabled countless technologies and products now essential to modern lives.

**U.S. investments in science R&D have created millions of jobs in public and private sectors, enhanced state economies, and generated commercial growth.** According to a <u>leading report</u> conducted by the National Academies of Sciences, Engineering, and Medicine, although scientists and engineers only account for four percent of the nation's workforce, they help create jobs for the other 96 percent of the population. Scientists' discoveries and insights extend beyond the research laboratory, impacting and employing people in many other sectors, from designers to builders to salespeople to consumers.

Decreased investment would have significant impacts on our country's long-term competitiveness and lead to an American innovation deficit. Many countries are increasing their investments in scientific research, recognizing that it will be a key foundation for 21<sup>st</sup> century economic growth and global competitiveness. For the period 2000-2013, China's average annual R&D investment growth shot up 17%; South Korea grew 8.3%; Russia 8.2%; Singapore 6.8%; and Germany 3.2%. This compares to 2% growth in the U.S. over that period. Without sustained commitment, this high-functioning engine is at real risk of stalling, harming the well-being of future generations. Once stalled, that process cannot be easily reversed. Attempting to rebuild our world-leading science and engineering enterprise would be expensive and slow, and face new competition from other rising leaders.

We urge America to support its research and innovation infrastructure. This will enable institutions to continue investing in skilled workers and high-technology tools; focus today's scientists on creating tomorrow's discoveries; support and prepare the world's finest future scientists through quality STEM education from K-12 through graduate school; and communicate a clear, hopeful path for today's emerging, diverse young scientists and engineers who will realize tomorrow's breakthroughs and applications.

For many decades, the American people and our economy have reaped the enormous benefits of federally-supported research. It is time again for the bipartisan foresight of U.S. policymakers to prevail in support of research. For FY 2017, we urge you to avoid a year-long continuing resolution and complete the appropriations process, declining the recently proposed cuts from the Administration. For FY 2018, we urge you to reject the Administration's proposed cuts to research investments and negotiate increased discretionary spending caps for next year and beyond that will permit sufficient federal research investments and sustain our nation's status as the world's innovation leader.

Thank you for considering our views.

Sincerely,

Academy of Nutrition and Dietetics
AcademyHealth
Acoustical Society of America
Alabama Academy of Science
American Academy of Forensic Sciences
American Anthropological Association
American Association for Dental Research
American Association for the Advancement of Science
American Association of Anatomists
American Association of Clinical Endocrinologists
American Association of Colleges of Nursing

American Association of Colleges of Pharmacy

American Association of Geographers

American Association of Immunologists

American Association of Neuromuscular & Electrodiagnostic Medicine

American Association of Physicists in Medicine

American Association of Physics Teachers

American Astronomical Society

American Chemical Society

American College of Physicians

American College of Rheumatology

American College of Sports Medicine

American Dairy Science Association

American Dental Association

American Dental Education Association

American Educational Research Association

American Forests

American Geophysical Union

American Geosciences Institute

American Heart Association

American Institute for Medical and Biological Engineering

American Institute of Aeronautics and Astronautics

American Institute of Biological Sciences

American Institute of Chemical Engineers

American Institute of Physics

American Lung Association

American Mathematical Society

American Meteorological Society

American Nuclear Society

American Physical Society

American Physiological Society

American Political Science Association

American Psychological Association

American Seed Trade Association

American Society for Cell Biology

American Society for Engineering Education

American Society for Horticultural Science

American Society for Microbiology

American Society for Nutrition

American Society for Pharmacology & Experimental Therapeutics

American Society for Reproductive Medicine

American Society of Agricultural and Biological Engineers

American Society of Agronomy

American Society of Animal Science

American Society of Civil Engineers

American Society of Hematology

American Society of Nephrology

American Society of Plant Biologists

American Sociological Association

American Statistical Association

American Thoracic Society

American Veterinary Medical Association

American Water Resources Association

**Animal Behavior Society** 

**Aquatic Plant Management Society** 

Arctic Research Consortium of the United States

Association for Clinical and Translational Science

**Association for Computing Machinery** 

Association for Psychological Science

Association for Research in Vision and Ophthalmology

Association for Women Geoscientists

Association for Women in Mathematics

Association of Academic Health Sciences Libraries

Association of American Universities

Association of American Veterinary Medical Colleges

Association of Departments of Family Medicine

Association of Family Medicine Residency Directors

Association of Independent Research Institutes

Association of Minority Health Professions Schools

Association of Public and Land-grant Universities

Association of Schools and Programs of Public Health

**AVAC** 

AVS Science and Technology of Materials, Interfaces, & Processing

**Behavior Genetics Association** 

Binghamton University, State University of New York

**Biophysical Society** 

Biotechnology Innovation Organization (BIO)

**Boston University** 

**Botanical Society of America** 

Brandeis University

California Institute of Technology

Case Western Reserve University

Clinical Immunology Society

Coalition for Clinical and Translational Science

Coalition for National Security Research (CNSR)

Coalition for the Life Sciences

Coastal and Estuarine Research Federation

Cognitive Science Society

College of Biological Sciences

College of the Atlantic

Colon Cancer Alliance

Columbia University in the City of New York

Computing Research Association

Consortium for Ocean Leadership

Consortium of Social Science Associations

Consortium of Universities for the Advancement of Hydrologic Science, Inc.

(CUAHSI)

Council of Professional Associations on Federal Statistics

Council on Undergraduate Research

Crohn's & Colitis Foundation

Crop Science Society of America

CropLife America

Cystic Fibrosis Foundation

Digestive Disease National Coalition

**Duke University** 

Dystonia Medical Research Foundation

**Ecological Society of America** 

Entomological Society of America

**FASS** 

Federation of American Societies for Experimental Biology

Federation of Associations in Behavioral and Brain Sciences

Florida International University

Florida State University

Foundation for Science and Disability

Friends of National Institute of Dental and Craniofacial Research

GBS|CIDP Foundation International

Geological Society of America

Georgia Institute of Technology

Graduate Women in Science

Harvard University

Hepatitis Foundation International

History of Science Society

HIV Medicine Association

**Houston Wilderness** 

Idaho Academy of Science and Engineering

Incorporated Research Institutions for Seismology

Indiana University

Infectious Diseases Society of America

INFORMS, The Institute for Operations Research and the Management Sciences

Institute of Electrical and Electronics Engineers (IEEE-USA)

Institute of Food Technologists (IFT)

**Institute of Mathematical Statistics** 

International Association of STM Publishers (STM)

International Foundation for Functional Gastrointestinal Disorders

International Society for Developmental Psychobiology

International Society for Educational Planning

International Society for Stem Cell Research

Interstitial Cystitis Association

John Wiley & Sons

Kansas Academy of Science

Kent State University

Kentucky Academy of Science

Law and Society Association

Linguistic Society of America

**LORD Corporation** 

Lymphoma Research Foundation

Mathematical Association of America

Medical Library Association

Meharry Medical College

**METAvivor** 

Michigan State University

Michigan Technological University

Microscopy Society of America

Morehouse School of Medicine

Mycobacterial Diseases of Animals - Multistate Initiative

National Alliance for Eye and Vision Research

National Alliance on Mental Illness

National Alopecia Areata Foundation

National Association for the Advancement of Animal Science

National Association of Biology Teachers

National Association of Federal Veterinarians

National Association of Geoscience Teachers

National Association of Marine Laboratories

National Association of Plant Breeders

National Center for Women & Information Technology

National Coalition for Food and Agricultural Research

National Council for Science and the Environment

National Ground Water Association

National Organization of Gay and Lesbian Scientists and Technical Professionals

National Pancreas Foundation

National Postdoctoral Association

NephCure Kidney International

New York University

NorCal CarciNET Community

North American Primary Care Research Group

North Central Regional Association of Agricultural Experiment Station Directors

North Central Weed Science Society

Northeastern Weed Science Society

Northern Illinois University

Northwestern University

Ohio University

Oklahoma Academy of Science

Oregon State University

Paleontological Society

Pasadena Chamber of Commerce and Civic Association

Penn State University

Phycological Society of America

Pollinator Partnership

Professional and Scholarly Publishing Division/Association of American Publishers

**Prostate Cancer Foundation** 

**Psychonomic Society** 

PsySiP: Psychology of Science in Policy

Pulmonary Hypertension Association

Purdue University

Rensselaer Polytechnic Institute

Research!America

Rochester Academy of Science, Rochester, New York

Rocky Mountain Biological Laboratory

Rural & Agriculture Council of America

SACNAS - Society for Advancement of Chicanos/Hispanics & Native Americans in

Science

Scleroderma Foundation

Seismological Society of America

Sigma Xi, The Scientific Research Honor Society

Sjogren's Syndrome Foundation

Sleep Research Society

Society for Behavioral Neuroendocrinology

Society For Biomaterials

Society for Computers in Psychology

Society for Experimental Biology and Medicine

Society for Industrial and Applied Mathematics

Society for Mathematical Psychology

Society for Neuroscience

Society for Psychophysiological Research

Society for Range Management

Society for Text and Discourse

Society for the Study of Evolution

Society of Behavioral Medicine

Society of Nuclear Medicine and Molecular Imaging

Society of Teachers of Family Medicine

Society of Toxicology

Soil Science Society of America

Southern Weed Science Society

SPIE, the international society for optics and photonics

Stanford University

Stony Brook University

Taskforce on American Innovation

The Clinical Research Forum

The Industrial Research Institute

The Land Improvement Contractors of America (LICA)

The Marfan Foundation

The Michael J. Fox Foundation for Parkinson's Research

The Oceanography Society

The Ohio State University

The Optical Society (OSA)

The Science Coalition

The University of Toledo

The Wildlife Society

Tuskegee University College of Veterinary Medicine

U.S. Council on Competitiveness

U.S. Hereditary Angioedema Association

University Corporation for Atmospheric Research

University of California San Diego

University of California Santa Cruz

University of California System

University of California, Berkeley

University of California, Riverside

University of California, Santa Barbara

University of Cincinnati

University of Colorado Boulder

University of Delaware

University of Kansas

University of Maine

University of Maryland, Baltimore County

University of Minnesota Extension

University of Missouri System

University of Nebraska

University of New Hampshire

University of New Mexico

University of North Carolina at Chapel Hill

University of Pennsylvania

University of Pittsburgh

University of Rochester

University of Southern California

University of Tennessee

University of Virginia

University of Wisconsin-Madison

US Dairy Forage Research Center Research and Industry Committee

Vanderbilt University

Virginia Tech

Washington University in St. Louis

Water Environment Federation
Wayne State University
Weed Science Society of America
West Virginia University
Western Society of Weed Science
Wisconsin Academy of Sciences, Arts & Letters
Woods Hole Oceanographic Institution

CC: Appropriations Chairs/Ranking Members, Appropriations Subcommittee Chairs