

December 22, 2016

Dear President-elect Trump:

As leading scientific organizations in the biological sciences, we write to encourage you to make scientific research and education a priority during your administration. Part of what makes America great is our capacity to generate new knowledge and ideas that spur innovation and drive the development of new economic opportunities for all Americans.

We respectfully request that you take swift action to:

- 1) Make scientific research a budget priority
- 2) Appoint a Presidential Science Advisor with strong scientific credentials
- 3) Direct your administration to use peer-reviewed scientific information to inform decisions

Biology is the science of life. Every day, discoveries arising from biological research contribute to improved human health and economic security. Biology is a foundational science from which we build new antibiotic and antiviral medications, translate findings from genetics laboratories into the development of more drought tolerant food crops, and develop new materials inspired by biological compounds and structures. Biological diversity surveys, for example, provide us with the information we need to identify and model diseases, such as Ebola and Zika, which can jump from wild animal populations to humans. Insights derived from our investigations into the human microbial biome are improving our understanding of various health conditions and diseases, such as food allergies, Crohn's and Inflammatory Bowel Disease, among many others. Biological research enables us to make more informed decisions about natural resource management and stewardship. When we understand how ecological systems function, we can prevent and better mitigate disruptions to important environmental processes that provide us with clean air and water.

Research is an important engine that powers our economy. Over the past 50 years, roughly half of our nation's private sector economic growth has resulted from research and development. One analysis of the return on the federal government's \$12 billion investment in the Human Genome Project found that it generated an estimated \$800 billion in economic return. Other economic analyses of investments in agricultural research have estimated a \$10 return on every \$1 the federal government invests. These are just some examples and others may be found in a recent report from the American Institute of Biological Sciences (see [https://www.aibs.org/public-policy/resources/AIBS\\_Biological\\_Innovation\\_Report.pdf](https://www.aibs.org/public-policy/resources/AIBS_Biological_Innovation_Report.pdf)). In short, taxpayer support of scientific research pays dividends.

The federal government provides more than half of the funding for basic research in the United States. Indeed, industry counts on the federal government to support fundamental discovery so that the private sector may target its resources to new product development. For example, 80,000 patents awarded over a 10-year period were based on research initially funded by the federal government's National Science Foundation.

Although the United States has long been a global leader in science, our leadership is waning. Foreign countries are allocating growing shares of their Gross Domestic Product to research and development. New investments in federal research agencies must be a priority if we are to be a global power.

Science is a rapidly advancing field that builds on itself. One scientific discipline borrows from another. Thus, it is important that federal agencies coordinate and strategically leverage their research portfolios. One of the ways in which the federal government coordinates its scientific priorities is through the President's Science Advisor and the White House Office of Science and Technology Policy. A strong and respected science advisor can provide the honest and timely analysis you will require to make informed decisions on threats to public health, national security, and environmental incidents that can threaten the well-being of people for years into the future. The Office of Science and Technology Policy can also help to ensure that federal research programs are responding to the needs of the scientific community and the nation. We encourage you to work with the National Academies of Science and professional scientific associations such as the undersigned to identify a highly qualified individual who can provide you with the highest caliber scientific advice and counsel.

Science has not been, nor do we think it should be, a partisan issue. Rather, it is a public benefit. We request that upon taking office you provide clear and immediate guidance through the White House Office of Management and Budget and the Office of Science and Technology Policy to all federal department and agency heads directing them to seek and use peer-reviewed scientific information as the basis for decision-making. Many federal programs have established scientific advisory boards and committees. These panels should be filled and staffed by qualified scientists. To do otherwise will call into question the credibility of any government actions taken on matters of health, security, or environmental stewardship.

We stand ready to work with you, your transition team, and your administration to move forward programs and policy that advance science for the benefit of the nation. Please contact Dr. Robert Gropp at [rgropp@aibs.org](mailto:rgropp@aibs.org) or 202-628-1500 x 250 if we can provide any assistance to you and your administration.

Sincerely,

American Arachnological Society  
American Institute of Biological Sciences  
American Malacological Society  
American Ornithological Society  
American Society of Agronomy  
American Society of Ichthyologists and Herpetologists  
American Society of Mammalogists  
American Society of Naturalists  
American Society of Parasitologists  
American Society of Primatologists

Animal Behavior Society  
Annis Water Resources Institute, Grand Valley State University  
Association for Tropical Biology and Conservation  
Association of Southeastern Biologists  
Belle W. Baruch Institute for Marine and Coastal Science, University of South Carolina  
Berkeley Natural History Museums  
BioQUEST  
Botanical Society of America  
Coastal and Estuarine Research Federation  
Crop Science Society of America  
Delaware Museum of Natural History  
Entomological Society of America  
Great Lakes Research Center of Michigan Technological University  
Harbor Branch Oceanographic Institution at Florida Atlantic University  
Harvard Museum of Comparative Zoology  
Hatfield Marine Science Center  
Helminthological Society of Washington  
Herpetologists' League  
Human Anatomy and Physiology Society  
iDigBio  
International Association for Bear Research and Management  
Kewalo Marine Laboratory, University of Hawaii at Manoa  
Moss Landing Marine Laboratories  
National Association of Biology Teachers  
National Association of Marine Laboratories  
National Tropical Botanical Garden  
NC State University/Center for Marine Sciences & Technology  
Oregon State University Herbarium  
Organization of Biological Field Stations  
Paleontological Society  
Phycological Society of America  
Sam Noble Oklahoma Museum of Natural History  
Society for Conservation Biology North America  
Society for Integrative and Comparative Biology  
Society for Mathematical Biology  
Society for the Study of Amphibians and Reptiles  
Society for the Study of Evolution  
Society of Environmental Toxicology and Chemistry  
Society of Systematic Biologists  
Soil Science Society of America  
Southwestern Association of Naturalists  
State University of New York College of Environmental Science and Forestry  
The Field Museum of Natural History  
University of California Davis Bodega Marine Laboratory  
University of North Carolina at Chapel Hill Institute of Marine Sciences  
University of Wisconsin - Madison, Department of Botany

US Regional Association of the International Association of Landscape Ecology  
Whitney Laboratory for Marine Bioscience, University of Florida  
Wisconsin State Herbarium