

July 28, 2021

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Office of Science and Technology Policy
Executive Office of the President
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RE: Office of Science and Technology Policy’s Request for Information to Improve Federal Scientific Integrity Policies

The American Society for Biochemistry and Molecular Biology is an international nonprofit scientific and educational organization that represents more than 11,000 students, researchers, educators and industry professionals. The ASBMB strongly advocates for strengthening the science, technology, engineering and mathematics (STEM) workforce, supporting sustainable funding for the American research enterprise, and ensuring diversity, equity and inclusion in STEM.

Scientific expertise is vital for federal science agencies to fulfill their missions, such as the [National Institutes of Health’s mission](#) to “seek fundamental knowledge about the nature and behavior of living systems” and the [Department of Energy’s mission](#) to “ensure American’s security and prosperity by addressing its energy, environmental and nuclear challenge through transformative science and technology solutions.” Historically, there have been [consistent attacks](#) on science, federal scientists, and their work. The ASBMB applauds the Office of Science and Technology Policy’s efforts to address the harm those attacks caused to the public’s trust of federal agencies and science at large.

The ASBMB has a series of recommendations to improve the effectiveness of federal scientific integrity policies to enhance public trust in science. These recommendations are focused on restoring public trust in science federal funding agencies, attracting a skilled scientific workforce and promoting transparency in policymaking.

1. Strengthen whistleblower protections and refine conflict-of-interest policies

The effectiveness of Federal scientific integrity policies in promoting trust in Federal science

Recommendation 1: To protect against improper interference in the conduct of scientific research, we urge federal agencies to fully enforce and defend all whistleblower protections guaranteed by the Department of Labor’s Occupational Safety and Health Administration, and we urge federal agencies to establish mechanisms for anonymously reporting violations of scientific integrity policies. In a [recent survey of more than 3,000 scientists](#) at nine government agencies, “two in five said they feared retaliation for speaking out about their agency’s work.” [Whistleblower protections are vital](#) to ensure that government institutions are held accountable for their actions, to ensure regulatory compliance and to protect the public’s interest. Furthermore, it is imperative that federal agencies use a consistent set of guidelines for whistleblower protections. In addition to establishing reporting mechanisms, federal

agencies must inform and train their employees on their rights laid out in the [Whistleblower Protection Enhancement Act of 2012](#).

Recommendation 2: To protect against disproportionate harm to federal scientists and researchers from groups that are historically underrepresented in science, technology and related fields, federal funding agencies must address non-financial conflicts of interest, such as foreign affiliation, in their conflict-of-interest policies. In the past several years, there have been concerns that federal agencies are [racially profiling Asian and Asian-American scientists](#) and profiling scientists who collaborate with Chinese institutions. [According to a U.S. Government Accountability Office report on addressing foreign influence](#), the National Institutes of Health's conflict-of-interest policy focuses on financial conflicts but does not address or define non-financial conflicts, including professional appointments. As a result, universities that receive federal funding lack sufficient guidance to manage these conflicts appropriately, and a [handful of scientists have been accused](#) of economic espionage or grant fraud even though there was little evidence to support those claims. Despite [prosecutors dropping charges](#) against some of these scientists, these researchers' careers have suffered and there has been an overall chilling effect on scientific international collaboration.

2. Encourage preprints and media engagement

Effective policies and practices Federal agencies could adopt to improve the communication of scientific and technological information

Recommendation 1: To speed up and broaden the communication of scientific and technological information, OSTP should examine the impacts of encouraging both federally employed and federally funded scientists to publish their research results as preprints. As demonstrated by the [preliminary results of the NIH Preprint Pilot](#), publishing preprints hastens the dissemination of scientific research. [Other studies](#) have illustrated how preprints foster scholarly discourse and accelerate scientific discovery.

Recommendation 2: To increase engagement of federal scientists with news media, OSTP should establish a policy allowing all civilian employees and contractors to speak with reporters without agency approval or pre-coordination if they are not speaking as official representatives of their agencies. Federal agencies' media policies [are inconsistent](#). By establishing a uniform policy, OSTP will ensure that the nation's experts are accessible to the media, contributing to the public dissemination of scientific findings and contributing to public education about the scientific process.

3. Study and remedy funding inequities and other professional barriers

Effective policies and practices Federal agencies could adopt to address scientific issues and the scientific workforce

Recommendation 1a: To ensure equitable support for researchers of all genders, races, ethnicities and backgrounds and advance the equitable delivery of federal programs, funding agencies must first track how much funding goes to underrepresented groups versus well-established groups. For example, [an NIH-funded study](#) found that more funding goes to late-career investigators, men, white scientists and

holders of medical degrees. Now NIH can identify the steps necessary for achieving equity. Other science agencies should follow this example.

Recommendation 1b: In addition, federal funding agencies must ensure that funds are available for researchers who have been historically neglected, such as [Black scientists](#) and [LGBT!+ scientists](#). One example of a successful funding mechanism that supports an underrepresented group in science and technology is the [NIH's Centers of Biomedical Research Excellence award](#). This award funds health-related research by investigators at institutions in states with historically low aggregate grant success rates. Similar award programs should be established across all federal funding agencies.

Recommendation 2a: To support the professional development of federal scientists and retain talent, agencies must address workplace harassment and impediments to participating in conferences. According to the GAO's [Strengthening and Sustaining the Federal Science and Technology Workforce report](#), sexual harassment and limitations on engagement with peers are two significant factors that push scientists out of the public sector. Federal funding agencies must mitigate sexual harassment and must remove barriers for scientists to present their work and forge collaborations at scientific meetings.

Recommendation 2b: To support the professional development of federal scientists and retain talent, it is essential that federal agencies develop consistent and robust policies with regards to mitigating sexual harassment as stated above. Policies, created in partnership with awardee institutions, should include enforcement that is consistent across the entire federal funding landscape.

4. Make scientific integrity matters public

Effective practices Federal agencies could adopt to improve training of scientific staff about scientific integrity and the transparency into their scientific integrity practices

Recommendation 1: To improve transparency of scientific integrity practices, federal agencies should be required to release a public annual report on the state of scientific integrity. This will give the scientific community and other important stakeholders a better understanding of governmental scientific integrity policies and the progress on upholding scientific integrity at federal agencies. This will also help make federal agencies accountable to the public.