



American Association  
for Dental Research

January 28, 2020

Chloe Kontos  
Executive Director  
National Science and Technology Council  
White House Office of Science and Technology Policy

**Re: Office of Science and Technology Policy Request for Information on the American Research Environment [FR Doc. 2019-25604]**

Via: [JCORE@ostp.eop.gov](mailto:JCORE@ostp.eop.gov)

Dear Ms. Kontos:

The American Association for Dental Research (AADR), which represents 3,400 and 107 institutional members working throughout dental, oral and craniofacial research, appreciates the opportunity to share our thoughts on the steps federal agencies can take to improve both the quality and effectiveness of the American research environment.

AADR recognizes that in order to ensure our competitiveness and leadership in science and innovation, we must find the balance between creating a research environment that is safe and secure as well as open and collaborative. As the largest division of the International Association for Dental Research (IADR), which has more than 11,400 members from over 90 countries, AADR and its members are committed to upholding the principles of diversity and inclusion for researchers throughout the world. Therefore, we are glad that within this Request for Information (RFI) the Joint Committee on the Research Environment (JCORE) placed specific emphasis on creating a welcoming research environment that enables everyone to work safely, efficiently, ethically and with mutual respect.

AADR's comments in response to the questions included in this RFI will focus primarily on the importance of preserving our critically important international relationships and collaborations and on cultivating a diverse and inclusive research environment.

## **RESEARCH RIGOR AND INTEGRITY**

AADR appreciates that the Office of Science and Technology Policy (OSTP) is examining the current research model with respect to research reproducibility, replicability and quality and understands that driving change in this space will be a long and involved process, and AADR and its members will be glad to assist OSTP in whatever way possible.

We recognize that federal agencies, including the National Institutes of Health (NIH), are currently grappling with how to adjust policies due to some researchers violating principles of ethics and integrity. Moving forward, JCORE may consider a mandatory research training or seminar on ethics that takes place each year. This could be beneficial for both new and experienced researchers. For new researchers, a training would equip them with information needed to make smart decisions when it comes to their research, including expectations from agency leadership, what is considered an ethical violation, how researchers can ensure they are consistently acting in a principled manner and adhering to agency rules, and how their ethics may be challenged by the nature of their positions. Having experienced researchers attend

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the seminar each year would ensure the content remains fresh in their minds and would allow them to provide feedback to agency leadership about how future seminars could be tailored for maximum effectiveness.

On the research reproducibility and quality side, there are several activities that federal agencies could explore to promote rigor and reproducibility in research, touching areas from research publishing to laboratory practices. To begin, federal agencies could work directly with scientific journals and publishers to promote the importance of the publishing of negative data, which is currently discouraged in practice. In research, we can learn from failed experiments as well as from successful experiments, and negative data doesn't imply less rigorous research.

Another area of potential opportunity is data sharing for accountability and reanalysis. While protecting privacy would be an important consideration in this space, there could be value for researchers in having central resources that would allow them to devote more time to research proposals. These may include guidelines for how to rapidly access laboratory data from federally funded labs or access to a federally funded database that lists information necessary for research applications (e.g., equipment, facilities, vertebrate animals and human studies).

There are also variations within institutions that may affect research rigor and reproducibility. JCORE may wish to consider how to unify or standardize certain research practices, experimental conduct, and appropriate statistical analysis across institutions. Options may include incorporating training within Ph.D. and advanced education programs, implementing training within institutions or conducting research on effective research practices to improve integrity. Additionally, if reproducibility and replicability are high priority areas for JCORE, the Committee might consider funding research in these areas. While there are already-existing examples of researchers reproducing research projects (see <https://www.sciencemag.org/news/2017/06/cancer-studies-pass-reproducibility-test> and <https://cos.io/rpcb/>), setting aside funding for this work would demonstrate JCORE's commitment to and belief in the importance of this work.

Finally, there have been conversations at the federal level about shortening the current embargo period for publications resulting from federally sponsored research from 12 months to six or zero months. AADR—along with its parent organization IADR—is a co-owner of both the *Journal of Dental Research (JDR)* and *JDR Clinical & Translational Research (JDR CTR)*. The current 12-month embargo period allows us—along with other American publishers—to regain the investments made to support the peer review process, drive advancement through our meetings and programs and, ultimately, assure high quality scientific content. Shortening the embargo period could undermine these efforts.

## **RESEARCH SECURITY**

AAADR [remains ever-committed](#) to international scientific collaboration and to promoting the principles of diversity and inclusion for our members throughout the world. We believe that the U.S. scientific enterprise is made stronger by the involvement of international scientists, who contribute tremendously to scientific discovery and scholarship. AADR hopes that the United States will continue in its efforts to attract international talent to U.S. research institutions and to support international partnerships, programs and research projects.

IADR and AADR members have directly benefitted from their engagement with peers throughout the world, particularly at scientific conferences, such as the IADR General Session, the largest scientific conference in the world for dental, oral and craniofacial research. However, in recent years, the Associations have seen an increasing number of attendees denied entry to the United States for these conferences due to disadvantageous U.S. policies, such as Presidential Proclamation 9645, which put U.S. entry restrictions and limitations into effect for Chad, Somalia, Iran, Libya, North Korea, Syria, Venezuela and Yemen. Such policies negatively impact our members (both in the advancement of their own

scientific careers and their view of the United States being a welcoming working environment) and impede the exchange of scientific information.

As mentioned previously in our comments, AADR recognizes that policymakers are being faced with the difficult task of creating policies that support an open and collaborative scientific environment while also protecting U.S. science and discoveries. We know OSTP has been in contact with the scientific community about this issue, and we encourage the agency to continue engaging this stakeholder community in these delicate conversations. AADR welcomes the opportunity to work with OSTP, federal research agencies and other stakeholders to develop policies that achieve this balance.

## **SAFE AND INCLUSIVE RESEARCH ENVIRONMENTS**

AADR is deeply committed to creating a culture of safety and inclusivity for its members and to promoting a diverse research workforce. Particularly in recent years—prompted by internal forces, such as Association leadership looking to incite positive organizational change, to external factors, such as the release of the 2018 National Academies of Sciences, Engineering, and Medicine study, [Sexual Harassment of Women: Climate, Culture, and Consequences in Academic Sciences, Engineering, and Medicine](#)—AADR has taken several steps to creating a welcoming environment for its members across the world. We are glad to see that OSTP is making this same commitment.

### ***Fostering a Culture of Safe and Inclusive Research Environments***

In 2014, AADR created a diversity task force to formulate a plan for increasing the diversity of the Association. This task force included the AADR president and president-elect, signifying the importance and seriousness of this initiative. Under the leadership of the task force, AADR accomplished: 1) an audit of diversity within AADR membership as it relates to gender, race and ethnicity, and disability; 2) an assessment of diversity programs of similar organizations and 3) a plan for addressing lack of diversity within the Association.

From the assessment of diversity programs of similar organizations, there were a few consistent themes that emerged and have been used to guide AADR's diversity efforts:

- Diversity is integral to research excellence and delivering quality health care.
- To broaden participation in biomedical science, it is important to support underrepresented minorities (URMs) throughout their research careers by providing professional development opportunities, monetary support, psychosocial support, and mentoring, especially at career transition points where loss is more likely to occur.
- Broadening participation requires an all hands-on-deck approach by underrepresented groups as well as well-represented groups.
- Role models and visibility of other URMs are crucial to developing an environment of inclusiveness and encouraging other URMs.
- Diversity is largely encouraged through travel awards, research awards, grants, and professional development programs.

The work of AADR's task force led to the establishment of a standing committee in 2018 called the Committee on Diversity and Inclusion, charged with developing programs for promoting diversity and inclusion within AADR and the dental, oral and craniofacial workforce. The committee's primary accomplishments to date have focused on increasing visibility of researchers from underrepresented groups through the creation of the [AADR Diversity and Inclusion](#) webpage, which includes a project titled, "Faces of Dental Research"; hosting trainings at AADR annual meetings on

diversity and inclusion, such as combating implicit bias and conducting climate studies on the learning and working environments of research institutions (discussed below); and retaining researchers from underrepresented racial and ethnic groups through creating programs like the [AADR/Procter & Gamble Underrepresented Faculty Research Fellowship](#), which was created to support underrepresented racial and ethnic researchers at the early stages of their scientific careers and to increase the representation of these groups at the faculty level in science and academia.

### ***Recruiting and Retaining Diverse Researchers***

One of the major barriers to the recruitment of dental, oral and craniofacial researchers is the cost of training. Students graduating from dental schools in 2019 reported an average total educational debt of \$292,169, and of those students, approximately 40 percent had total educational debt of over \$300,000 (*Snapshot of Dental Education, 2019-2020*, American Dental Education Association). Many of AADR's members have a D.D.S. or similar clinical degrees, and in the face of such debt, dental students may feel pressured to choose a more lucrative career path, such as clinical practice, over a research career. To encourage students into research careers, AADR heavily promotes the NIH Loan Repayment Program, which is designed to make it financially easier for students to choose a research career. The Loan Repayment Program, however, is underutilized, and AADR would encourage research into why these programs don't receive more applicants.

AADR has also sought to increase the recruitment and retention of diverse researchers through partnering with other dental professional societies, such as the National Dental Association (NDA), which serves African American dental care providers and the Hispanic Dental Association (HDA). AADR often attends and exhibits at these associations' conferences to raise awareness of research opportunities, particularly among students who are still considering multiple career paths. AADR also has a strong relationship with the American Dental Education Association (ADEA) and has participated in its diversity workshops to collaborate on opportunities to increase diversity in the research workforce. Furthermore, AADR has a strong working relationship with the National Institute of Dental and Craniofacial (NIDCR), which is the largest funder of research at dental schools. AADR has provided input on diversity initiatives within NIDCR's strategic plans and on specific programs, such as NIDCR Director's Postdoctoral Fellowship to Enhance Diversity in Dental, Oral, and Craniofacial Research.

Finally, AADR is also increasing its efforts in mentorship. A recent study from Harvard Business Review showed that mentorship is one of the best tools for increasing diversity, especially for women (Dobbin et al. 2016. *Why Diversity Programs Fail*. HBR.). AADR and NIDCR co-host a mentoring and networking lunch at AADR's annual meeting, and AADR is exploring ways to offer more ways to offer mentoring opportunities to its members.

### ***Reviewing Federal Agency Policies Alignment with Organizational Policy***

The recommendations of the Working Group Advisory Committee to the National Institutes of Health (NIH) Director report "Changing the Culture to End Sexual Harassment" is largely complementary to AADR's own policies surrounding harassment. In 2019, AADR implemented a Professional Conduct at Meetings Policy (NIH Recommendation 1.1d) to help provide a safe, friendly and welcoming environment for all. The policy outlines unacceptable behaviors, including but not limited to sexual harassment; the expected behavior at AADR events; and the process for reporting unacceptable behavior and AADR's addressing of grievances.

More recently, the AADR Board of Directors expanded its efforts in this space by adopting a new policy about how to handle honorees and award recipients credibly accused of sexual harassment. In passing this policy, AADR elevated sexual and other types of harassment to the level of research misconduct, which was also a recommendation made by

the NIH Working Group. This new policy also mirrors NIH's recommendation to proactively ask individuals applying for an award whether there are findings against them for professional misconduct or harassment or if they have been involved in a settlement regarding an allegation of professional misconduct, including sexual harassment, in the past.

As AADR has developed these policies, the Association has regularly communicated its commitment to creating a positive experience and a safe environment for its members, noting that complaints of harassment will be treated seriously and responded to promptly. The usefulness of having formal policies related to sexual and other harassment in place cannot be underestimated; creating these policies has allowed AADR to be proactive instead of reactive.

### ***Assessing Progress in Promoting Safer and More Inclusive Research Environments***

Dental institutions have used a climate assessment to understand the learning and working environments of their institutions' students, faculty and staff. A recent undertaking of AADR was conducting the study "Survey of Dental Researchers' Perceptions of Sexual Harassment at AADR Conferences 2015-2018," the objective of which was to assess perceptions and experiences of sexual harassment among registrants for AADR annual meetings.

In its sexual harassment survey, AADR measured multiple types of harassment, including 'put downs' or condescending remarks; 'sexist remarks'; staring, leering or 'ogling' that was uncomfortable; 'touching' that was uncomfortable; unwanted attempts at a romantic relationship; and experiences with 'bribes', 'threats', or provision of 'suggestive materials.'

The results of AADR's "Survey of Dental Researchers' Perceptions of Sexual Harassment at AADR Conferences 2015-2018" were presented during a session at the 97<sup>th</sup> IADR/AADR/CADR General Session & Exhibition in Vancouver, British Columbia.

Additionally, AADR highlighted its sexual harassment survey and three climate assessments—conducted by University of Michigan School of Dentistry (Murdoch-Kinch *et al.* 2017. *JDE*. 81(10):1153-1163); University of California-San Francisco School of Dentistry (<https://dentistry.ucsf.edu/about/climate-survey>) and University of North Carolina-Chapel Hill (<https://oira.unc.edu/institutional-effectiveness/surveys-and-other-assessment-data/>)—to serve as examples of methods used in conducting studies and to demonstrate how these studies inspired strategies, such as town halls and listening sessions, to increase diversity.