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October 27, 2023

Re: Responses to NIH Request for Information

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Katherine P. Andriole, PhD

Miriam A. Bredella, MD

John D. Hazle, PhD

Satoshi Minoshima, MD, PhD

Pari Pandharipande, MD, MPH

Neil Rofsky, MD

Karun Sharma, MD

Mitchell D. Schnall, MD, PhD

Ex-officio

Dear Senator Cassidy:

Thank you for the opportunity to respond to your questions regarding modernizing the National Institutes of Health. The Academy for Radiology & Biomedical Imaging Research (the Academy) is one of the many scientific societies that advocates on behalf of robust and consistent funding for NIH. We are committed to advancing research in medical imaging to promote the health and well-being of patients. By engaging a community of developing and experienced imaging scientists, novel technology experts, patients and their advocates, we promote shared learning and communication on both current research and future initiatives. We also inform the public and policymakers about how imaging and image-guided therapies translate into disease prevention, earlier and more accurate diagnoses and therapies, and improved quality of health care.

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As a stakeholder in the NIH community, we are pleased to provide our thoughts in response to questions you raise for consideration. Should there be opportunities to engage with the wider community in further conversation, the Academy would be interested in joining those sessions.

As an overlay to your questions and goals, the Academy believes that trust in the NIH's work and mission is paramount. Without widespread trust in scientific and biomedical research, NIH's overall efforts will be undercut and discounted. Any effort to strengthen NIH must begin with fostering trust in its work, biomedical discoveries, and supporting the researchers conducting this groundbreaking work. Cures and treatments will be ineffective if there is no trust in the underlying science and researchers.

Executive Director:

Renée L. Cruea, MPA

In a similar way, scientists and scientific knowledge should determine the direction and focus of research. While policymakers rightfully determine funding levels and exercise oversight of federal agencies and initiatives funded by taxpayers, the scientific peer review process led by experienced researchers should lead direction, evaluation, and interpretation of specific projects. Setting research directions via policy or mandate will lead to missed opportunities for new discoveries and treatment. As constructed, NIH addresses a wide spectrum of research goals with hundreds of qualified experts to help evaluate detailed research plans, proposals, and results.

With these considerations as an overlay, the Academy provides these further thoughts in response to questions you posed in your RFI:

5. How could NIH change its approach to staffing peer review committees to increase risk tolerance within the research community and encourage funding of more bold proposals rather than incremental science?

It is important to recognize that incremental science is the steady drumbeat towards discovery and breakthroughs. While bold proposals and increased risk tolerance (high risk/high reward) is a useful approach and one that can accelerate knowledge, the proven and reliable path to discovery is via the incremental and cumulative work that develops over time. To be sure, there is room in the biomedical research space for both approaches. Bold approaches need not be supported at the expense of incremental progress, which is why the Academy is also a strong supporter of the creation and funding of Advanced Research Projects Agency for Health (ARPA-H). The simplest solution is to increase support for all of NIH to allow the agency to pursue all meritorious research. Even allowing for the idea that not all proposals submitted to NIH are of sufficient quality to warrant pursuit, the current success rates at NIH are at a level where high-quality, well-designed research proposals go unsupported due to lack of funding. By increasing the resources available, NIH and its peer review process will be able to support a wider spectrum of research pathways that will ultimately benefit patients.

7. What specific factors cause individuals to leave the biomedical research workforce? How could common NIH funding mechanisms be revised to better recruit and retain high-quality investigators, including young investigators?

Published studies show investigators leave biomedical research for primarily two reasons: 1) funding opportunities are limited, forcing them to find alternative careers, and 2) researchers, particularly women, people of color, and other underrepresented people, feel unsupported (at best) or face openly hostile environments (at worst) such that they leave the field. While NIH is increasing opportunities to support early career researchers with specific funding opportunities, training, and related programming, there are still limited spaces for most to move toward independence.

However, that people leave the field because of a lack of support or discriminatory environments is unacceptable. NIH can and must do better in this regard. While issues of harassment, intolerance, and other hostile environments are first handled by the research institution, NIH can better wield the leverage it has over grant funding to ensure those creating a negative environment are not rewarded for their behavior. Moreover, through its policies, NIH can continue creating a research environment where individuals with different needs and lived experiences are supported and welcomed into the community.

3. In your view, could NIH research dollars be better allocated within the agency's portfolio? Are there certain areas of research that are over-funded or under-funded? What strategy should Congress and NIH take in allocating resources to specific areas?

As noted above, scientific merit and experienced researchers must determine the direction of research. Artificially singling out one or selected areas for specific focus could create a situation where novel advancements are missed. Biomedical research is not one straight line to discovery. There are countless examples where a discovery in one field was set aside, only to be applied in a different context years later to yield great success. Congress is not well positioned to determine which areas of scientific research are ripe for

focus. NIH, like other research agencies, can better see the research landscape uniquely to advance all areas in complementary ways. Additionally, there are research “applications” that can be applied across multiple diseases or biological systems. Increasing our capacities in areas like imaging and radiology science, artificial intelligence, engineering, and computational processing can be applied to specific areas like cancer and neuroscience or conditions like diabetes or heart disease. Ensuring strong and continued support of those areas that can be directly applied to specific areas of focus can be beneficial across the biomedical research spectrum.

1. What specific policy recommendations do you have to improve the transparency of NIH’s work, including its accountability to the American people and Congress? Are you aware of any specific mechanisms that have effectively achieved this goal for other federal agencies, including outside of the Department of Health and Human Services (HHS)?

Transparency and accountability can result in improved research and discoveries. While there are many reasons to make NIH-supported discoveries public and accessible, there is a balance that does not include compelling researchers to release interim data or initial findings that may require contextualization, further investigation, or that can be easily misinterpreted. Scientific discovery is a long-term effort, and revealing interim snapshots can be more harmful than beneficial. Moreover, information that is made available is often technical or complex. That does not equate to a lack of transparency or accountability.

Ensuring the properly contextualized and explained findings in a transparent and accountable way is a mutually beneficial conversation to all involved. When NIH provides transparency or answers questions from policymakers, they deserve the benefit of being trusted partners in this effort. Suggestions that NIH is untrustworthy or deliberately misleading when reporting on scientific advancements or recommendations only serves to undermine the biomedical advancements being sought. Moreover, the American public will follow the lead of their elected officials, both locally and nationally. Policymakers and NIH must work collaboratively to accurately discuss and report on scientific achievements that benefit all Americans. By spreading falsehoods or distorting research findings, actual and life-changing successes are ignored or altogether dismissed to the detriment of those needing therapeutics and cures. NIH is working on behalf of the American people. The conversations held in public, while important and in furtherance of the goals of transparency and accountability, must be of such a tone and posture to reestablish trust in science.

Thank you again for the opportunity to join these discussions at the initial stages. The Academy looks forward to being a stakeholder in these efforts as these conversations continue.

Sincerely,



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