

## Written Testimony

*House Appropriations Hearing | March 17, 2026*

Chair Aderholt, Ranking Member DeLauro, and Members of the Subcommittee, thank you for inviting me to appear before you and for your continued support for the nation's biomedical research enterprise.

As Director of the National Institutes of Health (NIH), my responsibility is to ensure that NIH fulfills its core purpose: generating scientific knowledge that improves the health and longevity of the American people. NIH is the largest public funder of biomedical research in the world, supporting more than 300,000 researchers at more than 2,500 research institutions across the country. The research we support spans the full continuum, from basic laboratory research to clinical and population-level studies. Our mission is to seek fundamental knowledge about living systems and apply that knowledge to reduce illness and disability.

With the Committee's longstanding support, NIH-funded research continues to drive significant advances in medicine. Over the past year, NIH investigators have advanced cell and gene-based therapies curing rare diseases, deployed prevention strategies to end the HIV epidemic, and unlocked markers of early development to promote healthy brain growth, to name a few. This progress is the result of sustained investments in biomedical research and demonstrates the capacity of the American biomedical research enterprise to deliver meaningful results.

Yet, the health challenges facing the country remain substantial. Life expectancy in the United States has not meaningfully increased since 2012. Chronic diseases are the leading causes of death. Cancer, heart disease, diabetes, neurodegenerative disorders, and other chronic conditions continue to devastate millions of American families. However, I have hope that by prioritizing investments in Gold Standard Science technology, harnessing real world data, and deploying the brightest scientific minds on the chronic disease epidemic, NIH will be positioned to reverse these troubling trends.

For this to occur, the evidence base on which the public makes health decisions must be robust. Additionally, public trust and confidence in the scientific method and the scientists conducting the research must be at the forefront of the NIH mission. After the COVID-19 pandemic, many Americans felt disconnected from the scientific community. For example, guidance related to school closings did not adequately consider potential harms to children and may not have protected Americans from infection. Restoring trust in NIH and the research we support is one of my top priorities as NIH Director. In recent years, public and professional confidence in scientific institutions has been strained, as rapidly evolving

evidence and highly visible policy debates placed extraordinary pressure on the research enterprise. Restoring trust in NIH requires clear communication about uncertainty, rigorous and reproducible science, and transparent processes that allow findings to be independently evaluated and debated. NIH must allow for open discussion about different scientific points of view.

Under this administration, NIH is modernizing the way biomedical research is funded, conducted, and overseen, with transparency serving as the foundational principle. Additionally, efforts are underway to strengthen replication and reproducibility so that research results supported by NIH can be challenged and validated, putting scientific advancement at the core of all we do.

### **Delivering Measurable Scientific Progress**

NIH investments in basic research and its translation into clinical applications are producing actionable discoveries improving the lives of Americans every day. For example, last year, NIH delivered the first CRISPR gene editing therapy for an infant with a rare, previously fatal disease. In addition, these same foundational technologies underpin recent gene-editing therapies that are curative for sickle cell disease. Taken together, these advances bring the promise of personalized medicine for treating chronic disease within our reach.

NIH-supported research continues to advance HIV prevention strategies that could significantly change the trajectory of the epidemic. Decades of NIH investment in basic science led to the development of long-acting antiretroviral agents, including lenacapavir, which is already approved for the treatment of multidrug-resistant HIV. Building on that work, the NIH has launched clinical trials in the United States to evaluate this long-acting injectable as a form of pre-exposure prophylaxis, with a focus on safety, acceptability, and performance across diverse populations. These advances contribute to the President's plan of Ending the HIV Epidemic in the U.S. by 2030.

Advances in computational modeling are expanding our ability to study disease mechanisms with greater precision. NIH researchers recently developed a "digital twin" model of retinal cells to better understand the cellular processes underlying age-related macular degeneration, which is the leading cause of vision loss in older adults. By simulating retinal cell behavior in a controlled computational environment, investigators can evaluate potential therapeutic strategies and identify promising targets before disease progression becomes irreversible.

NIH researchers are also driving advances in restoring function to those sustaining severe neurological injury, such as stroke and spinal cord injury. Investigators have developed new

computer systems for translating electrical signals in the brain into audible speech in near real time, offering new possibilities for individuals who have lost the ability to communicate. In parallel, precisely implanted microelectrodes have enabled people with spinal cord injuries to perceive sensations such as shape, motion, and object orientation through artificial stimulation. Coupled with ongoing advances in bionic limb technology, these breakthroughs move the field closer to restoring functional movement and a sense of touch for individuals living with paralysis.

This work is part of a broader effort to understand how early biological, social, and environmental influences contribute to disease risk across the lifespan. NIH-supported research includes studies to clarify how behavioral, environmental, and community-level factors interact to affect long-term health, helping to inform public health strategies aimed at reducing the burden of disease. Nutrition is central to understanding and reducing the risk of chronic disease across the lifespan. NIH collaborates with federal partners, including the Food and Drug Administration, through joint nutrition regulatory science efforts designed to strengthen the scientific foundation linking diet and health outcomes. By integrating nutrition research with studies on environmental exposures, early brain development, and chronic illness, NIH is generating objective evidence that can guide prevention strategies and support healthier communities. This work also contributes to the evidence base about child health and chronic disease prevention, including priorities identified in the Make America Healthy Again initiative.

### **Strengthening Replicable and Reproducible Science**

Research findings often shape clinical practice, research investments, and policy making long before they are rigorously confirmed or are stringently tested. This means instead of properly confirming the validity of evidence in scientific labs and clinical studies, testing occurs on the public, with patients being the ones to ultimately bear the cost of unreliable evidence when foundational results are not reproducible. The need for change is clear. To move discoveries to improved health, reproducibility and replication must become a fundamental stage of the research lifecycle.

NIH is positioned to build independent verification and validation into the process and is launching a comprehensive Reproducibility and Replication initiative as part of our broader vision for Gold Standard Science. This initiative includes investing directly in the science of replication, establishing a dedicated platform for publishing findings from replication research, transforming PubMed into a knowledge base, and challenging the ecosystem to modernize the way scientists are evaluated. Within three years and working with the community, NIH will develop and pilot new metrics that recognize pro-social scientific

behaviors such as transparent data sharing, open code, participation in replication consortia, methodological rigor, training of scientists.

### **Reforming How NIH Supports Research**

In the first year under this administration, NIH has issued a substantial number of policy reforms to improve how NIH makes funding decisions, strengthen accountability, and increase transparency of NIH-funded research.

NIH has begun implementing a unified funding strategy to guide clearer and more consistent funding decisions across all Institutes and Centers (ICs). Under a new common framework, all ICs now follow a standard set of core tenets to make funding decisions: scientific merit assessed during peer review, alignment with the NIH mission, program balance, career stage, geographic balance, and stewardship of available funds. This strategy clarifies how applications are evaluated and weighed, and how funding decisions are made in a manner consistent with scientific priorities and available budgets while continuing to prioritize science that asks novel or under-explored questions crucial to advancing research and improving the nation's health.

NIH implemented a simplified review framework to make the process for evaluating grant applications more transparent. Under this framework, reviewers focus on three central factors: the importance of the proposed research, rigor and feasibility of the methods, and whether the investigators and institutions have the expertise and resources. Expertise and resources are evaluated on a binary scale of acceptable or not, which reduces the potential for general scientific reputation to have undue influence. NIH has also centralized peer review of all applications within the Center for Scientific Review, rather than the previous practice of reviewing some applications by individual Institutes and Centers. This centralization is increasing efficiency and improving consistency of peer review across the agency.

Once awards are made, NIH must ensure they are managed with the utmost accountability and transparency. In this spirit, NIH changed the way we support international research. International research collaborations allow scientists to work across borders to tackle global public health challenges that affect Americans. A recent NIH policy is enabling clearer tracking of foreign collaborations and more consistent oversight of these NIH funds. NIH is no longer permitting foreign subawards to be nested under a primary NIH award. Instead, foreign collaborators are supported through independent awards linked to the prime recipient, allowing NIH to track funds for each component of a project individually.

### **Fostering Integrity, Transparency, and Trust**

We recognize that public confidence in biomedical research depends not only on scientific excellence, but also on openness, accountability, and respect for the individuals and communities who make research possible. To strengthen that trust, NIH is implementing a roadmap to more fully incorporate public voices into clinical research. This includes ensuring that patients and communities have meaningful input throughout the research process and making the return of research results to participants a standard practice. Individuals who contribute their time, data, and life experience to scientific studies deserve to understand the outcomes of the research they make possible.

One step on this roadmap was to ensure that publications and scientific results from research supported by NIH funding, and thus the American people, are freely available to the public and the scientific community. To this purpose, the new [NIH Public Access Policy](#) effective date was accelerated and is now in effect as of July 2025. For comparison, the previous [2008 NIH Public Access Policy](#) allowed an embargo period up to 12 months after the date of publication. By accelerating implementation of the 2024 Public Access Policy, NIH ensured that peer-reviewed manuscripts arising from NIH funding are made publicly available in PubMed Central without embargo, reinforcing the principle that the results of publicly funded research should be accessible to the public without delay. This change strengthens transparency, supports faster scientific progress, and enables clinicians, patients, and researchers to benefit more quickly from new findings. NIH continues to implement complementary data management and sharing requirements to promote responsible data stewardship, but the accelerated public access policy marks a significant shift toward immediate availability of federally funded research results. Increased access to and transparency in NIH-funded research will help strengthen public confidence while ensuring that these investments generate reliable, reproducible, and broadly applicable scientific knowledge.

### **Conclusion**

NIH-supported researchers around the country are discovering ways to enhance health, lengthen life, and reduce illness and disability. Over the last year, NIH delivered impactful scientific progress, strengthened rigor, modernized oversight and financial accountability, and engaged the public as true partners in research.

Thank you for your partnership and for your continued support of the scientific enterprise that improves the health and well-being of the American people.