

Written Testimony
Senate Approps Hearing – May 21

Good morning, Chair Capito, Ranking Member Baldwin, and distinguished Members of the Subcommittee. It is an honor to appear before you again to discuss the National Institutes of Health (NIH) and its mission to improve the health of the American people.

As Director, my focus is strengthening the Nation's biomedical research enterprise and responsibly stewarding taxpayer resources to improve human health. With the continued support of Congress, NIH-funded research has delivered improved health outcomes for Americans. For example, over the past year, NIH research delivered on the promise of personalized medicine, restored function in spinal cord injury, and more.

At the same time, we as a Nation face a rising burden of chronic disease, shortening our life spans and impacting Americans' quality of life.

The FY 2027 President's Budget requests \$41.5 billion to support NIH in tackling this pressing problem. This request prioritizes research that improves population health, accelerates innovation, maximizes the impact of NIH research, and delivers measurable benefits for patients and communities, consistent with the goal of making America healthy again.

Improve Population Health

To improve population health, NIH is supporting basic, translational, and clinical research to better address the underlying complex drivers of disease and accelerate the delivery of effective interventions. This approach reflects further alignment toward linking discovery with real-world application, with a focus on reducing the burden of both chronic and infectious disease across the lifespan.

The FY 2027 Budget proposes \$60 million to expand integrative research on chronic disease, supporting efforts to better understand the biological, environmental, and behavioral factors that contribute to disease onset and progression. NIH is leveraging large-scale longitudinal cohorts and real-world data sources, including electronic health records, wearable technologies, and environmental exposure data, to develop predictive models that enable earlier detection and more effective prevention strategies.

NIH is also prioritizing research that strengthens the connection between scientific discovery and clinical care. Programs such as NIH CARE for Health™ are expanding access to clinical research by integrating studies into primary care settings, particularly in rural and underserved communities. These measures also help ensure NIH-supported research

addresses the needs of communities across the country, including those in rural areas that often experience a higher burden of disease and more limited access to care.

In addition, NIH is advancing research on key drivers of population health, including nutrition. In coordination with the Make America Healthy Again (MAHA) movement, NIH will launch an Initiative on Chronic Disease to leverage and align existing NIH research projects, improve NIH coordination on chronic disease research, and generate actionable results for diseases arising in childhood and adulthood. For example, ultra-processed foods account for approximately 60 percent of daily caloric intake in the United States, yet their long-term health effects are not fully understood. In support of Secretary Kennedy's Eat Real Food Initiative, NIH is supporting multidisciplinary research to better understand how diet, microbiome, and metabolic processes influence disease risk and to inform more effective prevention strategies.

NIH is employing coordination groups across the agency not only in nutrition and health promotion, but also in other areas such as environmental and chemical exposures; neurodevelopment, Mental Health & Cognitive Resilience; Substance Use, Prescribing, & Therapeutic Safety; and Cancer Etiology, Early Detection, & Survivorship. Through these actions, NIH is working to shift the focus of biomedical research toward prevention, early intervention, and improved health outcomes, ensuring that scientific advances translate into meaningful improvements that will Make American Healthy Again.

Building Reliable and Actionable Science

A central priority for NIH in FY 2027 is to ensure the science we fund is both reliable and actionable so that it can inform decision-making and improve health outcomes. To advance this goal, the FY 2027 Budget proposes \$100 million to launch a new initiative to bolster reproducibility and replication, embedding this as a fundamental tenet in all we do. This initiative will support replication studies across a range of scientific fields, develop new platforms for challenging the status quo in science, and position reproducibility as a core component of the biomedical research enterprise. A recently posted Highlighted Topic¹ exemplifies NIH's commitment to spur innovative investigator-initiated research around:

- Developing new tools and methods to help ensure experiments are optimally designed and research outputs are described with sufficient details and metadata.
- Shifting scientific norms to better incentivize rigorous and reliable research practices.

¹ grants.nih.gov/funding/find-a-fit-for-your-research/highlighted-topics/66

- Improving adoption of rigorous research practices through effective outreach, such as at scientific meetings and educational programs.

This \$100 million investment will support a coordinated, cross-Institute approach that elevates replication and reproducibility as a transformative scientific priority. This broad initiative will involve a multi-tiered strategy that integrates targeted funding mechanisms, technological innovation, and institutional culture change.

NIH is also expanding efforts to improve access to research results and underlying data. NIH has successfully implemented policies to ensure that all data, regardless of the finding, sees the light of day. And now, the NIH Public Access Policy makes it clear that research results must be made publicly available without delay. Together, these policies promote confidence in the research we fund and enable all to benefit from taxpayer-funded research. NIH will continue to prioritize transparency in all we do with the support of this budget.

In parallel, the agency has implemented a unified approach in how we fund science including a simplified peer review framework focused on the importance, rigor, and feasibility of proposed research, and is centralizing elements of the peer review process to improve efficiency and reduce duplication. These changes will enhance the quality and consistency of funding decisions while ensuring that resources are directed toward the most impactful science.

Through these changes, NIH is working to strengthen the integrity of the scientific process and ensure that its investments produce results that are credible, reproducible, and capable of improving health for the American people.

Broaden Research Portfolios to Drive Innovation

NIH is committed to stewarding a research portfolio that supports both foundational discovery and the development of innovative, high-impact approaches to improving health.

A key component of this effort is supporting highly innovative research that has the potential to drive transformative advances. Through programs such as the High-Risk, High-Reward Research Program, which is funded through the NIH Common Fund, NIH enables investigators to pursue bold and innovative ideas that may not fit within traditional funding mechanisms. The FY 2027 Budget includes \$515 million for the Common Fund, supporting cross-cutting initiatives that address complex scientific challenges and catalyze progress across multiple fields. For example, the Somatic Cell Genome Editing (SCGE) program, which is in its final years as a Common Fund catalytic program, has a proven track record of accelerating the translation of genome editing therapies into the clinic, including contributing to the landmark first-in-human study in which a personalized gene editing

therapy was safely administered to treat an infant with a life-threatening, incurable genetic disease (Baby KJ). Based on the groundwork laid by these SCGE-funded researchers, FDA recently announced the new plausible mechanism framework, providing guidance for developers working on individualized therapies for small patient populations, such as those with rare genetic diseases.

NIH is also working to broaden participation in the biomedical research enterprise and strengthen research capacity across the country. Programs such as the Institutional Development Award (IDeA) Program support infrastructure, workforce development, and clinical research in states and regions that have historically received lower levels of NIH funding.

In addition, NIH is expanding efforts to integrate research into community and clinical settings. Initiatives that embed research within healthcare systems and community-based environments improve the relevance of findings and help accelerate the translation of discoveries into practice. Programs such as the IDeA Clinical and Translational (CTR) program support these efforts by building research infrastructure, developing the workforce, and fostering collaborations that enable clinical and translational research to address health challenges in real-world settings. In addition, NCI-Designated Cancer Centers and the NIH CARE for Health™ initiative bring cutting-edge treatments and clinical trials directly to communities across the nation. These approaches also support increased participation in clinical research, particularly among populations that have historically been underrepresented.

NIH is also continuing to invest in research across a broad range of scientific areas, including rare diseases, women's health, aging, and mental health. Advances in these areas depend on sustained support for both foundational and applied research. For example, the NIH Office of Research on Women's Health will launch the COMpetency and Menopause and Integrated Therapy (COMMIT) challenge in 2026. This challenge will seek to identify, amplify and reward curricula that comprehensively address the menopausal transition, including menopause hormone therapy, within U.S. health education programs.

Accelerate Discovery with Next-Generation Tools

NIH is accelerating the pace of scientific discovery by leveraging next-generation tools, including advanced data infrastructure, artificial intelligence, and human-centered research models. These capabilities are transforming how biomedical research is conducted, enabling more precise, efficient, and relevant insights into human health and disease.

NIH is also advancing the use of artificial intelligence and machine learning to analyze complex datasets and uncover patterns that would not otherwise be detectable. Programs such as Bridge2AI are developing AI-ready datasets, tools, and standards that support the responsible use of these technologies across biomedical research. This work is helping to improve the speed and precision of discovery while ensuring that AI applications are grounded in high-quality, representative data.

In addition, NIH is investing \$25 million in human-based research models and new approach methodologies that complement traditional research systems. Advances such as organoid models and computational “digital twins” are providing new ways to study human biology and disease, with the potential to improve the predictive accuracy of preclinical research and accelerate the development of new therapies. Common Fund’s Complement-ARIE program is developing and scaling research methods that better stimulate human biology and reduce reliance on animal models, a priority of this Administration. Research projects recently funded through Complement-ARIE will produce more predictive models of human disease and address high priority research areas, spanning gynecological disorders, heart disease, neurological disorders, rare diseases, and more.

NIH is also supporting the integration of these technologies into clinical and research workflows. For example, emerging tools are improving the ability to match patients to clinical trials and expand access to research opportunities, helping to ensure that advances in biomedical science are more rapidly translated into benefits for patients.

Ensure Safety, Transparency, and Accountability

Ensuring the safety, transparency, and accountability of NIH-supported research remains fundamental to maintaining public trust and maximizing the impact of the Nation’s investment in biomedical science. In FY 2027, NIH is strengthening oversight, improving transparency in funding and research practices, and reinforcing safeguards that protect research participants and data. In addition, NIH is advancing initiatives to protect U.S. research and discoveries from foreign adversaries seeking to exploit these investments, and is incorporating additional research security considerations into new programs from the outset.

NIH is advancing a comprehensive approach for conducting science that balances rapid data access with appropriate privacy and security measures, establishing clearer expectations for safeguarding research conducted in collaboration with international partners. For example, we have strengthened mechanisms for overseeing foreign

collaborations and enacted new policies to protect Americans' sensitive data and biospecimens.

NIH is also deeply committed to modernizing biosafety and biosecurity oversight to keep pace with advances in science and technology. Importantly, NIH is working across the Federal government and with research institutions, and the public to develop a new, streamlined, biosafety policy calibrated to the research risks of tomorrow, to promote a culture of responsibility and vigilance in the conduct of life sciences research.

In addition, NIH is continuing to improve the transparency and efficiency of its funding processes. A major effort is underway to reduce administrative burden on grantees, with multiple requirements already eliminated or streamlined and additional simplifications in progress. By centralizing elements of peer review and improving reporting and disclosure practices, NIH is enhancing consistency and oversight across the research enterprise.

Conclusion

The FY 2027 Budget reflects a focused effort to strengthen the impact of NIH-supported research by advancing rigorous, innovative science and ensuring that discoveries translate into meaningful improvements in health outcomes.

Scientific progress depends not only on discovery, but on ensuring that research is rigorous, reproducible, and applicable in real-world settings. Strengthening public confidence in biomedical research requires a continued emphasis on transparency, accountability, and the responsible use of public resources. This includes ensuring that NIH-funded research primarily benefits the American public and is protected from misuse or unauthorized access by foreign adversaries.

NIH is committed to improving health, strengthening the reliability and transparency of the scientific enterprise, maximizing the impact of federal dollars, accelerating discovery through new technologies, and ensuring responsible stewardship of public resources. Through this work, NIH will continue to support a research enterprise that delivers measurable benefits to patients, families, and communities across the country.

I would like to thank the Subcommittee and Congress for your continued partnership and support of NIH and the biomedical research enterprise. That partnership remains essential to sustaining American leadership in science and ensuring that research continues to improve the health and well-being of the American people.

I look forward to answering your questions.