

ROBUST NIH FUNDING SAVES LIVES, STRENGTHENS AMERICA

The National Institutes of Health (NIH) is vital to America's global leadership in medical innovation. Researchers explain how their NIH-funded studies have improved lives. The administration's proposal to cut funding could leave Americans' health in jeopardy.

For decades, the NIH has embodied American excellence in biomedical research and supported innumerable scientific and clinical advances. While funding for medical research comes from many entities — foundations, corporations, state governments, and others — none comes close to matching the scope and support of the NIH.

In fiscal year (FY) 2025 alone, the NIH supported the rigorously vetted projects of more than 300,000 researchers at more than 2,500 institutions in all 50 states and the District of Columbia.

NIH-FUNDED RESEARCH IN FY 2025

300,000	2,500	\$37 billion
Researchers supported	U.S. institutions receiving funding	Funding awarded

Today in Louisiana, researchers are working to slow the cognitive decline that often affects those with stroke or traumatic brain injury. In Kentucky, they're studying the link between obesity and poorer prognosis for breast cancer patients. In Utah, they're working to reduce maternal mortality. And in Ohio, they're studying how Alzheimer's disease impacts men and women differently.

These projects, and countless others, are yielding results that will have a real-life impact on millions of Americans.

However, the stability of NIH funding is threatened. According to an AAMC analysis, on June 30, 2025, the [NIH had awarded almost \\$5 billion less in research grants over the prior 12 months](#) than over the same period the year before, as a result of disruptions and slowdowns in the processes for awarding federal grants. This gap required NIH to commit funds to new and renewed grants at a breakneck pace to avoid losing billions of dollars back to the U.S. Treasury on September 30, the end of the federal fiscal year.

What's more, the administration has proposed cutting the NIH budget in FY 2026 by 40%, a reduction of about \$18 billion. While appropriations committees in both the House and Senate have rejected such drastic cuts to NIH, negotiations continue.

"Disrupted funding has interrupted critical research at academic health systems and medical schools across the country — and has slowed the search for treatments for a broad range of diseases, including cancer, diabetes, Alzheimer's, and many other illnesses," says David J. Skorton, MD, AAMC president and CEO. "Congress must restore full funding for NIH in FY 2026, which will allow the biomedical enterprise to fulfill its commitment to improving health for every American."


THE ESSENTIAL ROLE OF THE NIH


The NIH has played a critical role in stimulating broad advances in medical research, in particular through the funding of foundational research.

Victor Ambros, PhD, [co-winner of the 2024 Nobel Prize in physiology or medicine](#), says NIH support of his research over many years enabled the breakthrough that earned that prize: the discovery of a genetic mechanism that regulates human development and disease, and thus contributes to the onset of such afflictions as cancer, hearing loss, and eye and skeletal disorders.

"The indispensable component here is the partnership between the public — taxpayers — and the universities" that carry out the research, Ambros says. "The NIH has had the strong commitment to supporting basic science with the anticipation that it might pay off in unexpected ways."

Those unexpected discoveries can only happen through the steady commitment of funding from the NIH.

 **350+**
NIH-funded research was the basis for all 356 new drugs approved by the Food and Drug Administration between 2010 and 2019.

56%  Decrease in rate of deaths from heart attack per 100,000 people from 1999 to 2020

A SAMPLE OF CURRENT RESEARCH FUNDED BY THE NIH

STROKE AND BRAIN INJURY

Researchers at LSU Health New Orleans are working to prevent the cognitive decline of people who experience stroke and traumatic brain injury.

“Many of those patients, as time goes on, have cognition changes and Alzheimer’s-like dementia,” says Nicolas Bazan, MD, PhD, director of the Neuroscience Center of Excellence at LSU Health New Orleans. He is spearheading [two projects funded by the NIH with five-year grants](#) totaling \$4.9 million.

The work focuses on ischemic stroke, which cuts off blood flow to parts of the brain and is a leading cause of long-term disability. His team is developing ways to increase molecular protections to shield sections of the brain that initially survive severe damage but are subject to continuing erosion thereafter.

[Eighty-seven percent of the 795,000 strokes that occur in the United States each year are ischemic](#), according to the American Heart Association. The association projects that [stroke-related costs might triple by 2030](#), reaching \$183 billion.

“Thanks to the support of NIH,” Bazan says, “we are now very close to translating this discovery to the bedside of patients.”

BREAST CANCER

[The prognosis for breast cancer patients is worse if they are obese](#) and researchers at the University of Kentucky (UK) Markey Cancer Center are working to find out why.

“Targeting obesity-associated cancer progression remains a significant challenge,” says Ren Xu, PhD, professor in the UK College of Medicine’s Department of Pharmacology and Nutritional Sciences, who leads the study (funded by three NIH grants totaling about \$5.6 million) to help those patients live longer.

The study focuses on the role of a protein — heat shock protein 47 (Hsp47) — that promotes cancer progression and resistance to therapy and is especially prevalent in obese patients. Researchers are developing therapies to inhibit Hsp47 in breast cancer patients; those interventions have been tested in mice with promising results. Xu hopes to continue animal safety tests, then move on to human clinical trials.



3.8
MILLION

Lives saved by
cancer research
since 1991

MATERNAL MORTALITY

The University of Utah Health’s ELEVATE Maternal Health Research Center of Excellence is one of 12 centers across the country that receive NIH funding to help understand and reduce maternal mortality. The focus in Utah: reducing deaths from substance use disorder (SUD), which is the leading cause of maternal deaths there within a year postpartum, says Torri Metz, MD,

MS, a professor and vice chair of research at University of Utah Health (U of U Health), who chaired Utah's maternal mortality review committee. In 2020-2022, [the maternal mortality rate in Utah was 20.3 per 100,000 live births](#).

The center has a seven-year, \$14 million NIH grant that supports community engagement research and training programs for providers in rural areas and those who work with Native American people, who disproportionately experience SUD-related maternal death.

"The big, pie-in-the-sky goal is we are going to reduce maternal deaths," Metz says. "The NIH funding for this project is critical. We could not do this work at all without this funding."

ALZHEIMER'S DISEASE

Erin Reed, PhD, an assistant professor of pharmaceutical sciences at Northeast Ohio Medical University in Rootstown, Ohio, received a \$1.9 million, five-year grant from the NIH to study the role of sex chromosomes and hormones in Alzheimer's disease. She was intrigued by data showing men and women are affected differently by the disease, and she initiated a project to study sex differences in mice.

"If we can understand how men and women are going through this disease process, we can figure out how drugs can be more or less effective" for specific patients, Reed says.

About [7.2 million Americans age 65 and older live with Alzheimer's disease](#), accounting for 11% of people in that age group, according to the Alzheimer's Association. Almost two-thirds of Americans with Alzheimer's are women.

In March, Reed's lab published its first paper in the Journal of Neuroinflammation, describing its findings that [sex chromosomes and hormones influenced the immune reactions to Alzheimer's disease in mice](#).

PEDIATRIC OBESITY

Cody Neshteruk, PhD, an assistant professor of pediatrics and population health at Duke University School of Medicine in North Carolina, is studying the effectiveness and unintended side effects of anti-obesity medications in adolescents. "Preliminary evidence has come from clinical trials, which are not always reflective of what's happening in the real world," Neshteruk explains.

The study, which will follow 200 adolescents over 18 months, is supported with a nearly \$3.9 million NIH grant. From 2017-2020, the most recent data available, [22.2% of adolescents age 12-19 had obesity](#), according to the Centers for Disease Control and Prevention (CDC). The CDC reports that about [0.5% of U.S. adolescents with obesity were prescribed FDA-approved obesity medications in 2023](#), an increase of 300% from 2020.

OSTEOARTHRITIS

Trinity Kronk is pursuing an MD and a PhD at Northeast Ohio Medical University with the support of an NIH training grant of \$181,588. For her PhD research, Kronk is using mouse models to study the role of osteoactivin (a protein found in bone and other cells) in osteoarthritis, an inflammation-related disorder that causes chronic pain for more than 30 million Americans but lacks effective therapies.

Kronk hopes her research will guide the development of therapies like osteoactivin by uncovering its therapeutic potential and the mechanisms underlying its anti-inflammatory effects.

She also intends to become an orthopedic surgeon, where she will be able to translate her experience from the lab to clinical care.

“PhD researchers aren’t typically in the clinic seeing patients, while clinicians often have less time to engage deeply in basic and translational science research,” Kronk says. “Having individuals who can bridge these two worlds can be incredibly beneficial for furthering scientific discovery and enhancing patient care.”

RESEARCH TO PRACTICE

U of U Health’s Clinical and Translational Science Institute (CTSI) in Salt Lake City was founded in 2008 with NIH support to help translate medical research from the lab to the clinic. The CTSI has built infrastructure to help researchers, clinicians, and public health professionals, particularly through education and training, clinical research support, and funding.

“We make research faster, more efficient, and of higher quality,” explains Jennifer Majersik, MD, MS, CTSI co-director and chief of the Division of Vascular Neurology in the Department of Neurology at U of U Health.

For example: CTSI’s Rural Connections to Research project helps build partnerships with phlebotomy labs in rural areas of Utah, Colorado, Nevada, Idaho, Wyoming, and Montana to make clinical trials more accessible to patients living far from the research labs in Salt Lake City. CTSI also maintains a biobank with thousands of biospecimens collected by clinical researchers across disciplines, for use in a variety of lab experiments and clinical trials.

The U of U Health CTSI is supported by a seven-year, \$38 million grant from the NIH, awarded in 2023.

AUTISM

Ronald Seese, MD, PhD, a developmental neurologist at Akron Children’s Hospital and an associate professor of pediatrics at Northeast Ohio Medical University, started his lab in 2023 with an [NIH Director’s Early Independence Award](#). The nearly \$2 million grant supports his research into understanding the cerebellum and its role in dysautonomia in young people with autism.

Dysautonomia is a condition caused by dysfunction of the autonomic nervous system and can cause symptoms such as elevated heart rate, persistent sweating, and dizziness, all of which can be disabling. It affects more than 70% of children with autism. According to 2022 CDC estimates, [1 in 31 children in the United States have been diagnosed with autism spectrum disorder](#).

The Seese Lab uses advanced neuroanatomy techniques to map areas of the cerebellum responsible for autonomic control. He hopes that this work will pave the way for novel treatments, such as noninvasive neuromodulation (the use of electric or magnetic stimulation to influence neural activity).

“The NIH’s support is what really has allowed my lab to thrive and answer transformative questions,” Seese says.

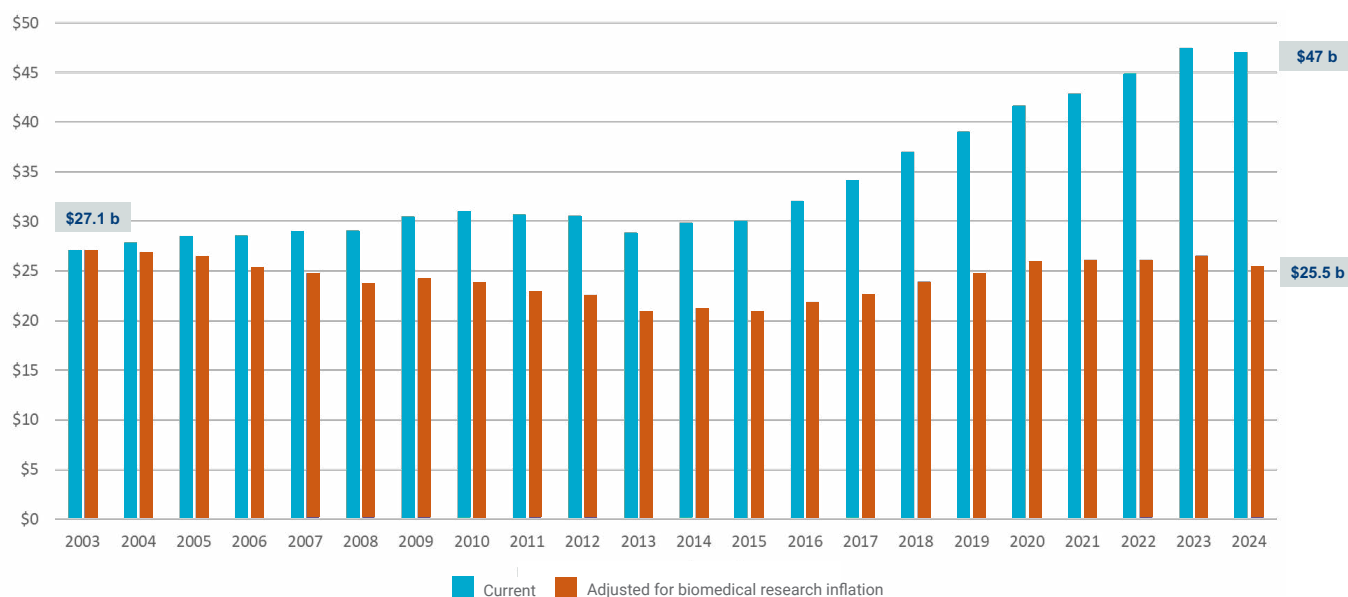
HOW NIH FUNDS ARE AWARDED AND USED

Among the chief reasons that the NIH has been highly regarded around the world are the [rigorous, science-driven approach](#) used to determine which grants to fund and its significant commitment to funding foundational research.

Through the peer review process, each NIH research grant application is assessed by scientists with expertise in relevant fields and their evaluations result in a set of recommendations made by independent advisory councils to the director of each NIH institute or center. The NIH consists of 27 institutes and centers, each focusing on different areas or mechanisms of research, and the director of each is responsible for making funding decisions.

The NIH has traditionally received strong bipartisan support for its research funding, regardless of which party controls the White House or Congress. Total funding has expanded over the years, though it has not kept pace with inflation.

Total NIH Funding Declined from FY 2003 to FY 2024 when Adjusted for Biomedical Research Inflation



Sources: NIH Office of Budget; White House Office of Management and Budget; P.L. 118-47. Updated 4/02/24.
Note: Funding levels do not include emergency supplemental funding.

“The NIH is the crown jewel of the scientific enterprise” in the United States, says Heather Pierce, JD, MPH, senior director for science policy and regulatory counsel at the AAMC. “There is no other body or sector with a mission as broad as the NIH – one that would devote its limited resources to exploration or foundational research to understand the basis of health and disease.”

Adds Elena Fuentes-Afflick, MD, MPH, AAMC chief scientific officer: “For decades, NIH has embodied American excellence in biomedical research and supported innumerable scientific and clinical advances. It is imperative that this lifesaving research is able to continue.”