



Leading Progress against Cancer

NCI Fiscal Year 2025 Professional Judgment Budget Proposal

At a Glance

DIRECTOR'S MESSAGE

Cancer is one of the greatest health challenges we face. It remains the number two killer in the United States, with nearly two million new cases of cancer diagnosed each year. Today, there are more than 18 million cancer survivors, and as each family affected by cancer knows, the disease often touches every aspect of a patient's life. For so many people with cancer, that means treatments that can be as toxic as the disease. Many others have limited treatment options or face significant societal barriers to care.

Yet the future holds great potential for preventing cancer or changing the meaning of a cancer diagnosis for an individual, their family, and their community. President Biden has set forth ambitious goals to end cancer as we know it for all people through the Cancer MoonshotSM. By aiming to decrease the overall cancer death rate at least 50% by 2047 and improving cancer care for everyone, that vision is within reach.

To succeed, we must accelerate progress for the most common cancers and confront those for which significant headway remains elusive, such as pancreatic cancer, glioblastoma, and certain childhood cancers. Moreover, we must eliminate inequities that contribute to worse outcomes for certain populations, especially Black Americans, people living in rural communities, and others who

have not benefited from the progress made against cancer.

This year, in partnership with organizations across the cancer community, NCI released a National Cancer Plan as a framework to accelerate progress. This rallying cry for action challenges everyone to find new strategies that leverage existing solutions to reach all people, while investing in research to identify, develop, and implement new approaches to prevent, detect, and treat cancer early, and turn all cancers into treatable diseases.

NCI employs an important strategy to make it easier for people to participate in cancer research: bringing clinical trials to where people live through the NCI Community Oncology Research Program (NCORP). Kellie's story, featured in this Fiscal Year 2025 Professional Judgment Budget Proposal, is emblematic of this strategy. Kellie, who was diagnosed with stage III non-small cell lung cancer, lives in a small town, hours away from major cancer centers. Thanks to NCORP, she receives treatment and contributes to research through a clinical trial close to home, without the hardship of long-distance travel. When cancer research has the resources to eliminate obstacles that hinder people's participation, we can find solutions that work for all who need them.

NCI, the largest funder of cancer research in the world, is the engine that drives progress. Institutions across the cancer research community—such as the 72 NCI-Designated Cancer Centers, 2,200 National Clinical Trials Network sites, and 46 NCORP network sites with more than 1,000 practices nationwide—depend on NCI’s support to unlock basic biological understanding of cancer, turn that knowledge into potential new approaches against cancer, and test whether these approaches work for all populations.

By funding cancer research as described in this proposal, we can capitalize on critical scientific opportunities and ensure that all people can benefit from our advances.

Through major investments in data infrastructure, NCI enables researchers across the country to access critical data and technology they need to find answers. These valuable resources include the Cancer Research Data Commons, Childhood Cancer Data Initiative, and human tumor atlases. NCI training programs, in turn, produce a pipeline of researchers that contributes diverse talent to institutions nationwide, allowing us to meet the promise of all opportunities and discover lifesaving advances.

To seize today’s opportunities, we need to fully power the cancer research enterprise. This Fiscal Year 2025 Professional Judgment Budget Proposal outlines the investments required to make bold progress by taking full advantage of the incredible body of knowledge and scientific resources we have available to us. This foundation, built on years of sustained support, allows for the pursuit of basic science to provide the comprehensive biological understanding we still need for many cancers. It is also the basis for research programs that turn knowledge gained into answers that help many more people overcome cancer’s devastating challenges.

By funding cancer research as described in this proposal, we can capitalize on critical scientific

opportunities, continue to lessen the impact of the past two decades of inflation that have eroded the purchasing power of NCI’s budget by a staggering \$1.1 billion, and ensure that all people can benefit from our advances.

NCI’s support for cancer research has led to many important breakthroughs for patients. The progress made against lung cancer, the leading cause of cancer death in the United States, is an excellent example. NCI-supported research played a vital role in developing targeted therapies responsible for the recent twofold decline in deaths from non-small cell lung cancer, the most common type of lung cancer.

Through basic science and immunology studies, NCI also laid the foundation for the development of immune checkpoint inhibitors to enhance the body’s immune response against cancer. Several of these inhibitors are now approved for treating lung cancer and have substantially improved outcomes for many people with non-small cell lung cancer.

In addition, NCI supported the development of an exciting new type of targeted therapy that was approved by the Food and Drug Administration in 2021. This advance shows great promise for treating cancers resistant to other therapies, including lung cancer and other challenging diseases such as pancreatic cancer. Expanding these investments will lead to more new treatments and offer hope to many more people still at risk of having time with their loved ones cut tragically short.

For the sake of all those whose lives are affected by cancer, we must seize upon the considerable scientific opportunities before us and break down barriers to cancer prevention and care. To achieve this, we need strong and sustained investments in cancer research to illuminate a path forward and ensure that no one facing cancer is left behind.



Monica M. Bertagnolli, M.D.

Director
National Cancer Institute

NCI FISCAL YEAR 2025 (FY25) PROFESSIONAL JUDGMENT BUDGET PROPOSAL

(DOLLARS IN MILLIONS)

Prior (FY24) Professional Judgment Budget Proposal	\$9,988*	
Proposed Budget Increase for FY25	\$1,478	\$518 Cancer Biology Research \$161 Cancer Prevention Research \$240 Cancer Detection & Diagnosis Research \$338 Cancer Treatment Research \$111 Public Health & Cancer Control Research \$110 Training & Infrastructure
FY25 TOTAL	\$11,466	

*This proposal includes \$1,581 million for the Cancer Moonshot and \$50 million for the 6th year of the Childhood Cancer Data Initiative.

Robust and sustained increases in funding for cancer research are needed to meet the goal of reducing cancer death rates by 50% over the next 25 years. This proposal presents NCI’s assessment of the funding needed in fiscal year 2025 (FY25) to accelerate progress to benefit all people with cancer and those at risk. In addition to supporting new avenues of discovery, funding for cancer research must include training the next generation of researchers and clinicians and supporting critical research infrastructure.

How the cost of conducting cancer research affects the pace of progress

NCI is the largest funder of cancer research in the world. This support leads to an in-depth understanding of cancer and innovative prevention, screening, and treatment strategies. However, the increasing cost of research and clinical trials has hurt NCI’s ability to fund research. Based on the Biomedical Research and Development Price Index, NCI has 13% less buying power than it did 20 years ago, resulting in a budget that can fund \$1.1 billion less research in 2023 than it did in 2003.

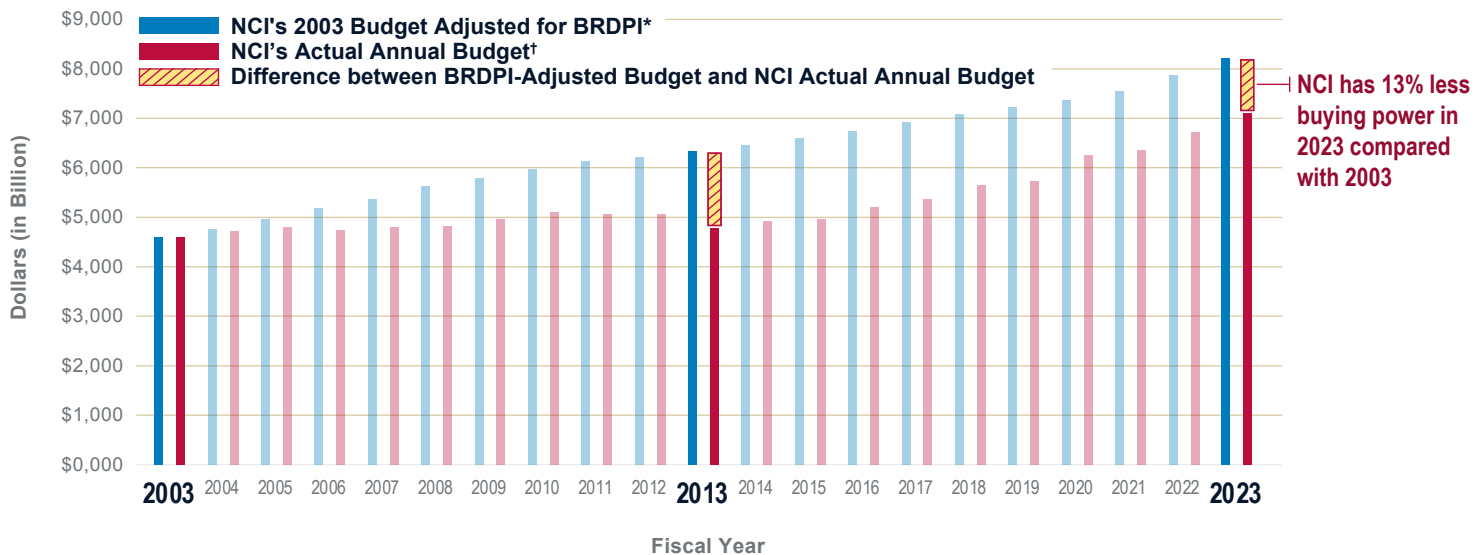
This deficit has made it difficult to optimally support the cancer research enterprise. Meanwhile, new

opportunities in cancer research have led to a tremendous surge in applications to NCI. The growth of NCI R01 applications over the last 10 years is almost 3 times that of the rest of NIH combined. This burst of interest in cancer research, coupled with increasing biomedical research costs, has outstripped NCI’s ability to fund these new opportunities.

Despite reduced buying power, recent budget increases have permitted NCI to expand the nation’s investment in investigator-initiated research. In FY23, NCI received a nearly 6% budget increase that supported investments across the institute’s portfolio, including 100 additional R01 and early-stage investigator awards. However, NCI currently receives many meritorious applications that cannot be funded. This means that we are missing opportunities to achieve advances in cancer prevention, screening, and treatment.

Additionally, multiyear funding commitments for grants, research and development contracts, and infrastructure have long-term budget implications. So, despite the budget increase from a supportive Congress, NCI recently faced difficult choices: having to balance the increased investment in R01 grants with other demands, including clinical trials, training programs, and critical research infrastructure.

NCI'S RESEARCH BUYING POWER IS \$1.1 BILLION LESS THAN 20 YEARS AGO



*Biomedical Research and Development Price Index

†Actual Annual Budget excludes funds from the American Recovery & Reinvestment Act and 21st Century Cures Act

Increasing investments in training, infrastructure, and investigator-initiated research

Investigators conducting R01 and other NCI-funded research depend on, among other things, graduate students and postdoctoral fellows supported by NCI training programs, research infrastructure at NCI-Designated Cancer Centers, and NCI-supported resources such as biospecimen and data repositories. These critical parts of the cancer research enterprise require funding on top of investigator-initiated, grant-supported research.

The funding requested here would allow NCI to make needed investments in training future cancer researchers and in supporting key infrastructure such as the Early Investigator Advancement Program, the NCI-Designated Cancer Centers Program, clinical trials networks, and the Cancer Research Data Commons.

Today's investments in basic cancer research launch tomorrow's breakthroughs, and NCI's portfolio must continue to grow through annual inflation-adjusted increases if we are going to end cancer as we know it. This FY25 Professional Judgment Budget Proposal would allow NCI to raise the R01 payline—that is, the percentile cutoff point of peer reviewed R01 applications that NCI intends to fund in a given fiscal year—to the 15th percentile, and capitalize on scientific opportunities, while growing the cancer research workforce. This budget would also support

necessary investments in research infrastructure and drive the National Cancer Program to deliver on the goals of the National Cancer Plan.

The Cancer Moonshot beyond the 21st Century Cures Act

This FY25 Professional Judgment Budget Proposal includes a little over \$2 billion to support the ambitious yet attainable goals of the Cancer Moonshot, including a 50% reduction in age-adjusted cancer death rates by 2047.

The funding requested in this proposal will allow NCI to make new investments in several key areas while building on the progress enabled by 21st Century Cures Act funding.

With the proposed funding, the next phase of the Cancer Moonshot will:

- modernize cancer clinical trials to increase accrual and completion rates
- translate discoveries into innovative cancer prevention and treatment approaches
- transform cancer screening and diagnosis practices to save more lives
- ensure rapid dissemination of standards of care to all people equitably
- expand and enhance the diversity of the cancer research workforce

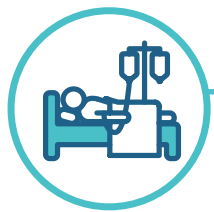
HIGHLIGHTED SCIENTIFIC OPPORTUNITIES

NCI continually pursues new and emerging scientific opportunities that, with further investment, would catalyze additional progress in cancer research. Read about five areas of opportunity highlighted in the NCI Fiscal Year 2025 Professional Judgment Budget Proposal: Leading Progress against Cancer.



IMPROVING PATIENTS' LIVES THROUGH SYMPTOM SCIENCE RESEARCH

More than 18 million cancer survivors live in the United States, many of whom have co-occurring health conditions and treatment-related side effects that impact their quality of life. Mitigating this problem is challenging, and sustained investments in symptom science research can have a positive impact on millions living with cancer now and in the future.



REVOLUTIONIZING CANCER CLINICAL TRIALS

Clinical trials are essential for achieving progress against cancer by determining optimal approaches to prevent, diagnose, and treat the disease. With additional investments, NCI can fully revolutionize the clinical trial enterprise and reach more people, build on novel trial methods, identify ways to make use of all trial data, and bring lifesaving approaches into routine practice sooner.



CLARIFYING THE IMPACT OF THE ENVIRONMENT ON CANCER RISK

Environmental exposures can have a large impact along the entire cancer continuum—from cancer development to progression to survivorship. Investing in research on environment-related cancer risks among individuals, communities, and populations could help identify people who are more susceptible to specific exposures and inform cancer prevention and treatment strategies for all.



HARNESSING THE POWER OF CANCER DATA

Researchers are generating an ever-increasing amount of cancer-related data, which must be collected and shared with the entire cancer community to better understand the disease. Investing in a virtual ecosystem to integrate distinct types of data will realize the full potential of cancer data and help to reduce the burden of cancer for all people.



UNRAVELING THE COMPLEXITY OF CANCER METASTASIS

Metastasis, the spread of cancer cells in the body, is responsible for most cancer deaths and can occur even before a cancer is detectable. A deeper understanding of metastatic disease progression and sustained investment in metastasis research are needed to answer key questions about the process to effectively prevent and treat this often-devastating progression of disease.