

NATIONAL CANCER INSTITUTE

CONGRESSIONAL JUSTIFICATION
FY 2026

Department of Health and Human Services
National Institutes of Health

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DEPARTMENT OF HEALTH AND HUMAN SERVICES

NATIONAL INSTITUTES OF HEALTH

National Cancer Institute

FY 2026 Budget Table of Contents

Summary.....	3
Major Changes.....	4
Budget Mechanism Table.....	6
Summary of Changes	7
Budget Graphs	8
Justification of Budget Request.....	9
Appropriations History	18
Budget Authority by Object Class.....	19
Detail of Full-Time Equivalent Employment (FTE)	20
Detail of Positions	21

General Notes

1. FY 2025 funding levels cited in this document are based on the FY 2025 Full-Year Continuing Resolution (Public Law 119-4), adjusted for HIV/AIDS transfer.
2. FY 2026 FTE levels reflect estimates and are subject to change.
3. Detail in this document may not sum to the subtotals and totals due to rounding.

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Summary

The National Cancer Institute (NCI) is the federal government's principal agency for cancer research and training. NCI leads, conducts, and supports cancer research across the nation to advance scientific knowledge and help all people live longer, healthier lives. As the leader of the cancer research enterprise, collectively known as the National Cancer Program, and the largest funder of cancer research in the world, NCI manages a broad range of research, training, and information dissemination activities that reach across the entire country, meeting the needs of all demographics. Specifically, NCI focuses on two broad roles – cancer research as well as training and support for cancer researchers.

NCI's investments have led to declines in the rates of new cancer cases and cancer deaths overall in the last few decades in the United States. In line with this improvement, the number of cancer survivors in the United States has more than doubled from 7 million in 1992 to more than 18 million in 2018 – and is expected to rise to 26 million by 2040. These trends reflect advances in cancer detection, diagnosis, and patient care that have resulted in people living longer, healthier lives than ever before.

The FY 2026 budget request for NCI is \$4,530.8 million.

Major Changes in the Budget Request

Major changes by budget mechanism are briefly described below. The FY 2026 President's Budget request for the National Cancer Institute (NCI) is \$4,530.8 million, a decrease of \$2,690.4 million or 37.3 percent from the FY 2025 Full-Year CR level. The FY 2026 request includes \$50.0 million for the Childhood Cancer Data Initiative (CCDI). The FY 2026 President's Budget reflects the Administration's fiscal policy goals for the Federal Government. Within that framework, NCI will pursue its highest research priorities through strategic investments and careful stewardship of appropriated funds.

Research Project Grants (RPG) (-\$1,267.6 million; total \$2,015.2 million):

With savings from capping indirect cost rates at 15 percent, NCI will fund 872 competing RPG awards in FY 2026 with a focus on supporting Early-Stage Investigators. The FY 2026 request will continue the FY 2025 NIH policy of allocating half of the budget for competing RPGs for awards that fully fund their outyear commitments as part of the initial grant awards. NCI will support non-competing RPGs at 90 percent of their full commitment level.

Research Centers (-\$276.8 million; total \$338.7 million):

With savings from limiting indirect cost rates to 15 percent, NCI will provide significant investments to its NCI-Designated Cancer Centers. Together with their community partners, the cancer centers form the backbone of NCI's extramural program for studying and controlling cancer.

Other Research (-\$127.9 million; total \$459.6 million):

The decrease in this mechanism largely reflects savings from the indirect cost rate policy change. NCI will continue to provide significant investment into clinical trial networks, as they are essential for testing new approaches and expanding options for people with cancer.

Training Awards (-\$39.6 million; total \$66.4 million):

During FY 2026, NCI will support the training awards at the equivalent proportion to the FY 2025 budget target. NCI training programs produce a strong cohort of future researchers capable of delivering important research results for people with cancer and those at risk for the disease.

Research & Development (R&D) Contracts (-\$281.3 million; total \$442.9 million):

In line with the cost efficiency initiative, NCI will have savings from contract reductions and terminations. Continued R&D funding will support critical shared infrastructure across NIH, enhanced information technology, and continued funding of the Frederick National Laboratory for Cancer Research (FNLCR).

Intramural Research (-\$484.4; total \$860.4 million):

The savings in the intramural research program represent Title 42 staff salary restrictions and contract reductions. NCI intramural research will continue to emphasize high-risk, high-reward cancer research unlikely to be conducted by other entities.

Research Management and Support (RMS) (-\$200.8 million; total \$329.6 million):

These savings represent staff reductions and contract terminations.

Buildings and Facilities (-\$12.0 million; total \$18.0 million):

NCI will support aging building infrastructure and laboratory space to protect mission-critical operations of the FNLCR.

BUDGET MECHANISM TABLE

NATIONAL INSTITUTES OF HEALTH National Cancer Institute

Budget Mechanism * (Dollars in Thousands)

Mechanism	FY 2024 Final		FY 2025 Full-Year CR		FY 2026 President's Budget		FY 2026 +/- FY 2025	
	Number	Amount	Number	Amount	Number	Amount	Number	Amount
Research Projects:								
Noncompeting	4,316	\$2,283,372	4,598	\$2,384,193	3,475	\$1,209,737	-1,123	-\$1,174,455
Administrative Supplements	(438)	\$47,330	(120)	\$12,925	(0)	\$0	-(120)	-\$12,925
Competing:								
Renewal	132	\$85,206	73	\$96,807	117	\$94,156	44	-\$2,651
New	1,089	\$554,918	610	\$630,473	755	\$613,210	145	-\$17,263
Supplements	3	\$515	0	\$0	0	\$0	0	\$0
Subtotal, Competing	1,224	\$640,639	683	\$727,280	872	\$707,366	189	-\$19,914
Subtotal, RPGs	5,540	\$2,971,342	5,281	\$3,124,398	4,347	\$1,917,104	-934	-\$1,207,295
SBIR/STTR	199	\$158,454	199	\$158,454	125	\$98,139	-74	-\$60,316
Research Project Grants	5,739	\$3,129,796	5,480	\$3,282,853	4,472	\$2,015,242	-1,008	-\$1,267,610
Research Centers								
Specialized/Comprehensive	237	\$606,359	241	\$615,430	190	\$338,673	-51	-\$276,756
Clinical Research	0	\$0	0	\$0	0	\$0	0	\$0
Biotechnology	0	\$0	0	\$0	0	\$0	0	\$0
Comparative Medicine	0	\$0	0	\$0	0	\$0	0	\$0
Research Centers in Minority Institutions	0	\$0	0	\$0	0	\$0	0	\$0
Research Centers	237	\$606,359	241	\$615,430	190	\$338,673	-51	-\$276,756
Other Research:								
Research Careers	544	\$114,491	474	\$99,826	270	\$56,841	-204	-\$42,985
Cancer Education	83	\$23,601	75	\$21,391	43	\$12,180	-32	-\$9,211
Cooperative Clinical Research	125	\$302,942	129	\$312,628	105	\$303,076	-24	-\$9,552
Biomedical Research Support	0	\$0	0	\$0	0	\$0	0	\$0
Other Biomedical Research Support	0	\$2,637	0	\$2,563	0	\$1,460	0	-\$1,104
Other	284	\$162,746	264	\$151,114	207	\$86,045	-57	-\$65,070
Other Research	1,036	\$606,416	942	\$587,523	625	\$459,601	-317	-\$127,922
Total Research Grants	7,012	\$4,342,571	6,663	\$4,485,805	5,287	\$2,813,517	-1,376	-\$1,672,289
Ruth L Kirschstein Training Awards:	FITPs		FITPs		FITPs		FITPs	
Individual Awards	454	\$21,643	536	\$25,531	305	\$16,003	-231	-\$9,529
Institutional Awards	962	\$68,235	1,135	\$80,493	647	\$50,431	-488	-\$30,061
Total Research Training	1,416	\$89,878	1,671	\$106,024	952	\$66,434	-719	-\$39,590
Research & Develop. Contracts	404	\$888,536	329	\$724,135	198	\$442,872	-131	-\$281,263
SBIR/STTR (non-add)	(40)	(\$33,125)	(40)	(\$33,125)	(28)	(\$21,421)	-(12)	-(11,704)
Intramural Research	1,873	\$1,345,393	1,669	\$1,344,831	1,426	\$860,402	-243	-\$484,429
Res. Management & Support	1,425	\$524,862	1,498	\$530,446	1,234	\$329,608	-264	-\$200,838
SBIR Admin. (non-add)		(\$4,487)		(\$4,487)		(\$2,782)		-(1,705)
Construction		\$0		\$0		\$0		\$0
Buildings and Facilities		\$30,000		\$30,000		\$18,000		-\$12,000
Total, NCI	3,298	\$7,221,241	3,167	\$7,221,241	2,660	\$4,530,833	-507	-\$2,690,408

* All items in italics and brackets are non-add entries.

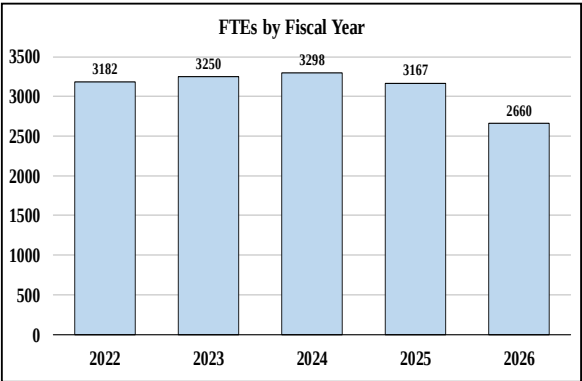
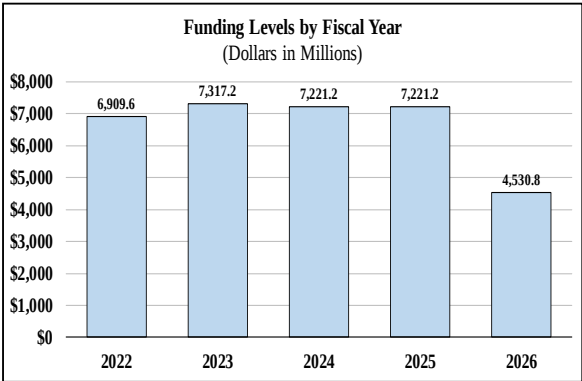
SUMMARY OF CHANGES

Summary of Changes (Dollars in Thousands)

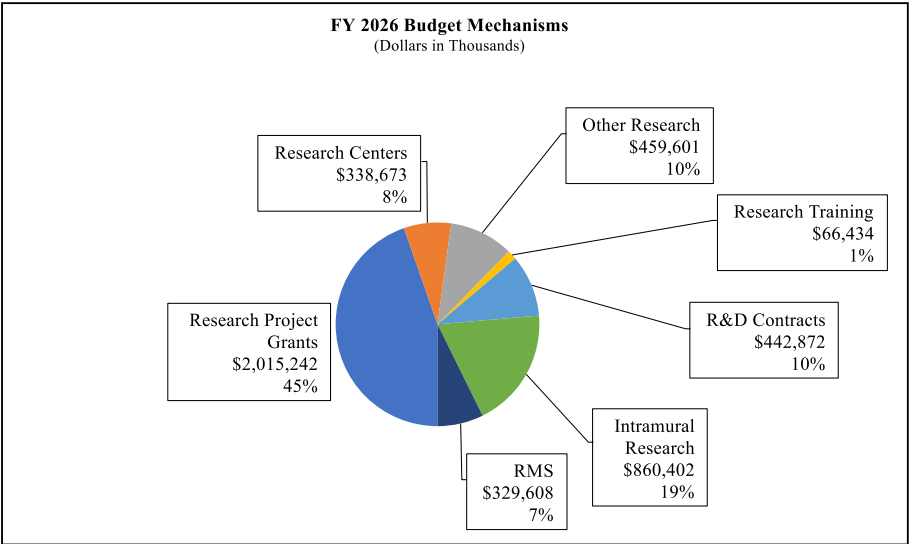
FY 2025 Full-Year CR	\$7,221,241
FY 2026 President's Budget	\$4,530,833
Net change	-\$2,690,408

CHANGES	FY 2025 Full-Year CR		FY 2026 President's Budget		Built-In Change from FY 2025 Full-Year CR	
	FTEs	Budget Authority	FTEs	Budget Authority	FTEs	Budget Authority
A. Built-in:						
<u>1. Intramural Research:</u>						
a. Annualization of FY 2025 pay and benefits increase		\$489,785		\$453,903		\$2,960
b. FY 2026 pay and benefits increase		\$489,785		\$453,903		\$1,071
c. Paid days adjustment		\$489,785		\$453,903		\$0
d. Differences attributable to change in FTE		\$489,785		\$453,903		-\$71,654
e. Payment for centrally furnished services		\$199,729		\$151,794		-\$47,935
f. Cost of laboratory supplies, materials, other expenses, and non-recurring costs		\$685,317		\$272,706		-\$17,213
Subtotal						-\$132,772
<u>2. Research Management and Support:</u>						
a. Annualization of FY 2025 pay and benefits increase		\$316,476		\$274,864		\$1,955
b. FY 2026 pay and benefits increase		\$316,476		\$274,864		\$789
c. Paid days adjustment		\$316,476		\$274,864		\$0
d. Differences attributable to change in FTE		\$316,476		\$274,864		-\$55,961
e. Payment for centrally furnished services		\$20,828		\$15,829		-\$4,999
f. Cost of laboratory supplies, materials, other expenses, and non-recurring costs		\$193,142		\$38,914		-\$13,189
Subtotal						-\$71,405
Subtotal, Built-in						-\$204,177
CHANGES	FY 2025 Full-Year CR		FY 2026 President's Budget		Program Change from FY 2025 Full-Year CR	
	No.	Amount	No.	Amount	No.	Amount
B. Program:						
<u>1. Research Project Grants:</u>						
a. Noncompeting	4,598	\$2,397,118	3,475	\$1,209,737	-1,123	-\$1,187,381
b. Competing	683	\$727,280	872	\$707,366	189	-\$19,914
c. SBIR/STTR	199	\$158,454	125	\$98,139	-74	-\$60,316
Subtotal, RPGs	5,480	\$3,282,853	4,472	\$2,015,242	-1,008	-\$1,267,610
2. Research Centers	241	\$615,430	190	\$338,673	-51	-\$276,756
3. Other Research	942	\$587,523	625	\$459,601	-317	-\$127,922
4. Research Training	1,671	\$106,024	952	\$66,434	-719	-\$39,590
5. Research and development contracts	329	\$724,135	198	\$442,872	-131	-\$281,263
Subtotal, Extramural		\$5,315,964		\$3,322,823		-\$1,993,141
6. Intramural Research	1,669	\$1,344,831	1,426	\$860,402	-243	-\$351,657
7. Research Management and Support	1,498	\$530,446	1,234	\$329,608	-264	-\$129,433
8. Construction		\$0		\$0		\$0
9. Buildings and Facilities		\$30,000		\$18,000		-\$12,000
Subtotal, program changes						-\$2,486,231
Total built-in and program changes	3,167	\$7,221,241	2,660	\$4,530,833	-507	-\$2,690,408

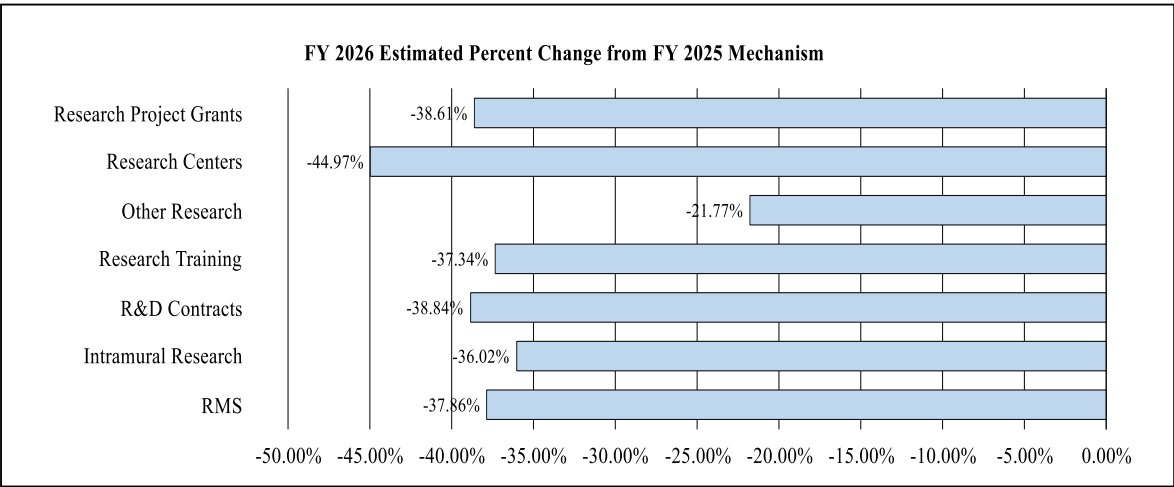
History of Budget Authority and FTEs:



Distribution by Mechanism:



Change by Selected Mechanisms:



National Cancer Institute

Budget Authority (BA):

	<u>FY 2024 Final</u>	<u>FY 2025 Full-Year CR</u>	<u>FY 2026 President's Budget</u>	<u>FY 2026 +/- FY 2025</u>
BA	\$7,221,241,000	\$7,221,241,000	\$4,530,833,000	-\$2,690,408,000
FTE ¹	3,298	3,167	2,660	-507

Program funds are allocated as follows: Competitive Grants/Cooperative Agreements; Contracts; Direct Federal/Intramural and Other.

Overall Budget Policy: The FY 2026 President's Budget request for the National Cancer Institute (NCI) is \$4,530.8 million, a decrease of \$2,690.4 million or 37.3 percent compared with the FY 2025 Full-Year CR level. The FY 2026 request includes \$50.0 million for the Childhood Cancer Data Initiative (CCDI).

Program Descriptions and Accomplishments

NCI is the largest funder of cancer research in the world, supporting research through grants and contracts, training programs, and infrastructure that lead to an in-depth understanding of cancer and innovative discovery, prevention, screening, treatment, and survivorship strategies. NCI supports basic and applied research that advances five broad scientific goals:

- Understanding How Cancer Develops
- Understanding the Causes of Cancer
- Detecting and Diagnosing Cancer
- Treating Cancer and Improving Survivorship
- Improving Cancer Prevention and Control

Importantly, NCI research supported under one scientific goal can contribute to and influence the approaches used to advance other goals. NCI supports investigator-initiated and other types of research project grants, clinical trials networks, Cancer Center Support Grants, training, infrastructure, and two intramural research programs. NCI also manages research contracts, including a federally funded research and development center (FFRDC) that serves the Frederick National Laboratory for Cancer Research. NCI operates research facilities to support the FFRDC and the intramural research programs.

¹ FY 2026 FTE levels reflect estimates and are subject to change.

Investigator-initiated research project grants constitute a large portion of the research investment for all five scientific goals. During FY 2024, NCI issued 7,012 new and continuing research grant awards, including 4,121 traditional research projects (R01/R37).

Also, during FY 2024, more than 50,000 new participants enrolled in over 750 clinical studies that NCI sponsored or supported. NCI-sponsored studies include those conducted by the National Clinical Trials Network and NCI Community Oncology Research Program, which together accounted for about half of all new participants enrolled in FY 2024. NCI-supported studies are led by individual investigators and through the NCI-Designated Cancer Centers program. For each of these initiatives, NCI funds infrastructure and other costs to support the networks, creating capacity and sustainability.

NCI supports a varied portfolio that reflects the fact that cancer is not a single disease and the processes that lead to malignant transformation are vast. Fundamentally, each person's cancer is distinct, although by studying the widest possible breadth of cancers and individuals with cancer, we can identify patterns and effective treatments. The complexity of cancer underscores the importance of NCI's work. The following sections highlight examples of NCI-supported programs, progress, and future activities. See [Cancer.gov](https://www.cancer.gov) for more information.

Understanding How Cancer Develops

The complexity of cancer requires an in-depth understanding of how genetic, physiological, behavioral, and environmental factors contribute to its development. Discoveries in basic scientific research on the initiation, growth, survival, and spread of cancer cells in the body have been, and continue to be, essential for progress in cancer prevention, detection, diagnosis, and treatment.

NCI currently supports an array of programs to understand how cancer develops, such as the Translational and Basic Science Research in Early Lesions program. NCI also supports critical infrastructure, such as the Cancer Research Data Commons, and access to cutting-edge instrumentation to conduct experiments that expand our understanding of how cancer develops. For example, the National CryoEM Facility provides researchers access to state-of-the-art cryo-electron microscopy. This high-resolution imaging technique allows scientists to visualize protein structures and interactions to help design new drugs that disrupt cancer-driving interactions. Together, NCI-supported programs and resources lead to new discoveries of how cancer develops at the molecular, cellular, and whole-body levels. The transformative advances against cancer, such as molecularly targeted therapies and immunotherapies, have been built on decades of NCI-supported basic cancer research.

Atlases Increase Understanding of How Cancer Develops

Cell atlases are detailed maps that reveal the 3-D architecture of tissues throughout the human body. To generate comprehensive atlases of tumors, NCI launched the Human Tumor Atlas Network (HTAN) in 2018. The network has published 14 three-dimensional tumor atlases to date. In 2024, the program was renewed with 10 newly funded HTAN research centers, which will produce more atlases that provide unique "views" into cancer. HTAN scientists have also developed analytical tools to capture complex molecular interactions among neighboring cells

within a tumor, including an algorithm to model dynamic cellular neighborhoods.² This allows researchers to predict where different cell types are located and how these cell populations communicate with each other over the course of tumor progression. Moving forward, this method will help researchers understand the conditions that drive critical transitions during cancer development to intercept cancer at any stage.

The Pre-Cancer Atlas (PCA) is a component of HTAN focused on characterizing premalignant lesions to understand what causes healthy cells to transform into cancer. The four current PCA Research Centers are working to build atlases that delineate biologic, molecular, immunologic, and pathologic features of precancerous lesions that can help identify new actionable targets for cancer interception or treatment. This is essential as we move toward earlier cancer detection and intervention.

Cancer Progression

Studying cancer progression—the process by which cancer evolves over time to become more advanced (metastatic) disease—is a critical component of understanding how cancer develops. NCI-funded studies have revealed important aspects of this process, ranging from how cells divide and respond to stress to how inherited mutations shape how tumors develop and interact with the immune system. For example, NCI researchers found that cells preparing to divide can reverse this process and return to a resting state, challenging long-held beliefs about cell division and pointing toward potential therapeutic interventions.³

NCI research networks, such as the Barrett’s Esophagus Translational Research Network and Metastasis Research Network, have contributed to our understanding of how inherited mutations influence cancer development and progression. One study identified a hereditary mutation that contributes to the development of Barrett’s esophagus, a precursor of esophageal cancer.⁴ Additionally, other funded research demonstrated that a breast cancer patient’s inherited mutations in certain cancer-causing genes help determine which tumors are destroyed by the patient’s immune system and which tumors go undetected, allowing them to grow and progress.⁵

Understanding the Causes of Cancer

The risk of developing cancer is influenced by the interplay of multiple factors. In addition to inherited gene mutations, cancer risk can also be influenced by external factors, such as exposure to tobacco products, ultraviolet light, toxins, or infectious agents. Understanding the interactions among genetic, environmental, and health factors that cause cancer can improve the ability of scientists to prevent, diagnose, and treat it.

NCI supports an array of programs to understand the causes of cancer that range from laboratory-based research to large-scale population studies. These include cohort and genome-wide association studies such as the Confluence project, which began in 2018. This study is developing a large research resource including 300,000 breast cancer cases and a matched number of control participants to uncover breast cancer genetics and how they impact risk and

² pubmed.ncbi.nlm.nih.gov/38565973/

³ pubmed.ncbi.nlm.nih.gov/37407814/

⁴ pubmed.ncbi.nlm.nih.gov/37659676/

⁵ pubmed.ncbi.nlm.nih.gov/38815010/

patient outcomes. Past NCI-funded research on understanding the causes of cancer and risk factors include the identification of inherited BRCA1 mutations that predispose certain people to breast and other cancers, and studies on tobacco that are the foundation of population-based tobacco control policies and tobacco cessation programs.

Impact of Genetics on Cancer Risk

NCI supports research to identify and evaluate genetic risk factors that may be linked to cancer, as well as research to understand the mechanisms of how they induce and promote cancer. A recent study evaluated whether polygenic risk scores, a measure of an individual's overall risk of developing cancer, can predict cancer risk among survivors of childhood cancers.⁶ Researchers found that common inherited genetic variants may play an important role in the risk of subsequent cancer in this group and that childhood cancer survivors with high polygenic risk scores who received radiation therapy have a higher risk for certain secondary cancers. These results suggest that common inherited genetic variants could potentially inform screening and long-term follow-up for those at greatest risk to prevent second cancers from developing.

Impact of Nongenetic Factors on Cancer Risk

NCI supports research to identify and evaluate nongenetic risk factors and exposures that may be linked to cancer, including environmental exposures, plus research to understand the mechanisms of how they cause cancer. For example, more than 13 different cancers are known to be associated with obesity, although the precise mechanisms underpinning this link are unclear. Established in 2021, the five research awards of the Metabolic Dysregulation and Cancer Risk Program aim to characterize the dynamics and underlying mechanisms that link obesity, metabolic dysregulation, and increased cancer risk in individuals to improve cancer risk prediction and identify potential targets for preventive and therapeutic interventions.

NCI also studies the link between cancer risk and infectious agents, including viruses and bacteria. There are more than 100 trillion microorganisms compromising the human microbiome, and some of these may help to promote tumor growth. Building on previous NCI-funded research that identified the bacterium *Fusobacterium nucleatum* as an instigator of colon cancer growth and spread, researchers recently pinpointed a single type of this bacteria that appears to be fueling the progression of colon cancer.⁷ This finding offers a potential therapeutic target to prevent cancer from developing or progressing, could be incorporated into screening efforts, and provides biological explanations as to how microorganisms help colon tumors form and grow.

Detecting and Diagnosing Cancer

Reducing mortality from cancer by accurately identifying cancer and precancerous lesions and assessing their severity is the primary goal of cancer detection and diagnosis research. While early detection can save lives, imprecise assessments can lead to overdiagnosis, overtreatment, and unnecessary physical, psychological, and financial harm.

NCI supports a variety of programs to improve screening, early detection, and diagnosis. Examples include the Molecular Diagnostic Network and the Early Detection Research Network (EDRN). Established in 2000, EDRN is a collaborative program that maintains infrastructure and

⁶ pubmed.ncbi.nlm.nih.gov/38454124/

⁷ cancer.gov/news-events/cancer-currents-blog/2024/colorectal-cancer-fna-c2-bacteria

resources critical to the discovery, development, and validation of biomarkers for cancer risk and early detection. Past NCI-funded research has led to major advances including establishing the effectiveness of screening mammography for detecting early-stage breast cancer and the use of genomic sequencing to help identify treatments for people with advanced cancers.

New Methods to Detect and Diagnose Cancer

NCI supports research to improve cancer detection tests and develop new approaches to benefit all people. As part of the 2020 *Last Mile* Initiative working to improve cervical cancer screening coverage, NCI launched the Self-collection for human papillomavirus (HPV) testing to Improve Cervical Cancer Prevention (SHIP) Trial Network in 2024. SHIP gathers data on a “self-collection” method for HPV testing to prevent cervical cancer. This method, if determined viable, could open new opportunities for improving uptake of cervical cancer screening, especially for people in rural areas. In other work, researchers developed a urine test using expression of 18 genes to spot the presence of prostate cancers in men with high prostate-specific antigen.⁸ This advance might allow patients to avoid unnecessary invasive biopsies and procedures in the future.

In most cases, the earlier a cancer is detected, the better potential outcome for patients. This is an important area of NCI-funded research, including for pancreatic cancer, which has a low survival rate because it is often diagnosed at later stages. The Pancreatic Cancer Detection Consortium develops and tests new molecular and imaging biomarkers for detecting early-stage pancreatic ductal adenocarcinoma (PDAC) and its precursor lesions to identify individuals who are at high risk of developing PDAC and could be candidates for early intervention. The consortium has funded 14 awards since 2021.

NCI-funded researchers are engineering new ways to detect cancer. A team of scientists designed bacteria that can noninvasively detect DNA released into the gut from colon cancer tumors.⁹ The bacteria are programmed to search for a particular genetic mutation. While more research needs to be done, these bacterial biosensors could possibly be designed to diagnose the precise type of cancer they are finding or could potentially deliver treatments to tumors in the gut when and where they are detected in the future.

Research to Improve Cancer Screening

Having effective tests that detect cancer or precancers is only one component of cancer screening. Broad adoption of screening protocols is a challenge, including for people who are most at risk. Launched in 2024, the Cancer Screening Research Network (CSRN) is investigating how to identify asymptomatic cancers earlier, when they may be easier to treat. Eight network sites have been funded with the aim of reaching populations that receive routine care in a variety of geographically spread-out health care settings. In 2025, CSRN will launch the Vanguard Study to assess the feasibility of using multi-cancer detection (MCD) tests—blood tests that can screen for several types of cancers—in large-scale future studies. The latter studies will evaluate the benefits of using MCD tests to screen for cancer and whether they can detect cancer early in a way that reduces deaths.

⁸ [nih.gov/news-events/nih-research-matters/urine-test-identifies-high-risk-prostate-cancers](https://www.nih.gov/news-events/nih-research-matters/urine-test-identifies-high-risk-prostate-cancers)

⁹ [cancer.gov/news-events/cancer-currents-blog/2023/engineered-bacteria-detect-cancer](https://www.cancer.gov/news-events/cancer-currents-blog/2023/engineered-bacteria-detect-cancer)

Tobacco smoking remains the leading cause of lung cancer and understanding who is most at risk and would benefit from screening can help detect lung cancers earlier. The U.S. Preventive Services Task Force guidelines for lung cancer screening currently uses a pack-year cutoff for eligibility, where the number of packs smoked per day is multiplied by the number of years smoked. The screening eligibility recommendation was reduced from 30 to 20 pack-years in 2021, expanding screening eligibility for over 5 million individuals, but screening uptake remains low. However, a recent NCI-funded study suggests using cumulative tobacco exposure instead of pack-years would prevent some high-risk individuals from being excluded from screening.¹⁰

Treating Cancer and Improving Survivorship

For more than 50 years, NCI-supported research has been fundamental to the development of effective, optimized treatments for people with cancer. Importantly, cancer treatment research goes beyond developing and testing therapies, including controlling symptoms, managing toxicities, and improving care. Research is also focused on enhancing quality of life and long-term survivorship following treatment.

Today, NCI supports a variety of programs to improve treatment and survivorship, including the newly formed Clinical Trials Innovation Unit, which aims to accelerate clinical testing of new cancer prevention, diagnostic, treatment, and survivorship approaches. The renewed RAS Initiative, an endeavor to develop drugs to attack proteins that are frequently altered in human cancers, has made major headway against this previously “undruggable” cancer target, leading to first-in-class drugs in clinical testing and practice. Groundbreaking precision medicine clinical studies that began with the 2015 Molecular Analysis for Therapy Choice (MATCH) Trial have led to subsequent drug combination trials, such as myeloMATCH to test treatments for myeloid, blood-forming cells in the bone marrow, cancers and ComboMATCH to test new drug combinations guided by tumor biology. Long-term NCI support of basic and translation research focused on targeted therapy and immunotherapy development has enabled these large precision medicine studies.

New Treatment Advances

In early 2024, the FDA approved the first cellular therapy for a solid tumor, advanced melanoma. This first-of-its-kind, personalized treatment uses cancer-targeting immune cells, called tumor-infiltrating lymphocytes, that are isolated from a patient’s own tumor. The approval decision was based on a clinical study made possible by decades of pioneering NCI-supported studies.¹¹

Too often, a person’s cancer initially responds to standard treatments, but then it returns. When this happens, alternative treatment options that are tolerable to the patient and effective against the cancer are critical. NCI researchers have developed a combination targeted treatment that achieves full remission for some people with aggressive B-cell lymphoma, a type of blood cancer, that has become resistant to standard therapies.¹² The treatment, which avoids chemotherapy, targets multiple molecular pathways that B-cell lymphomas use to survive.

¹⁰ pubmed.ncbi.nlm.nih.gov/38537159/

¹¹ cancer.gov/news-events/cancer-currents-blog/2024/fda-amtagvi-til-therapy-melanoma

¹² cancer.gov/news-events/press-releases/2024/vipor-combination-therapy-b-cell-lymphoma

Not everyone who receives treatment for cancer will have the same outcome, even those with the same type of cancer and receiving the same treatments. NCI scientists have created an artificial intelligence (AI) machine-learning model that predicts outcomes in patients treated with immune checkpoint inhibitor therapy using genomic features of their tumor in addition to common clinical features routinely collected from patients.¹³ The model identified treatment candidates who could benefit from but may not have received the therapy based on existing predictive measurements. Expanding and implementing AI-driven tools to enhance the use of available treatments is an important contribution to reducing cancer mortality going forward.

Identifying New Drug Targets and Therapeutic Approaches

Spontaneous cancers in dogs and cats share many features with human cancers, including prostate, breast, bone, and skin cancers. NCI's PRE-medical Cancer Immunotherapy Network Canine Trials (PRECINCT) and Comparative Oncology Program explore naturally occurring cancers in companion animals as models for human disease. Since its inception in 2017, PRECINCT has supported a network of 10 U.S. veterinary schools leading canine immunotherapy studies, while the Comparative Oncology Program, launched in 2003, supports ongoing studies through a network of 20 sites across the nation. This research helps both people and pets by providing relevant information about response to treatment and insight into treatment side effects.

Moving forward, one major hurdle to overcome for treatments that use cancer-fighting immune cells is that immune cells can become weakened or exhausted in the demanding environment of a solid tumor. A recent study supported by NCI's Pediatric Immunotherapy Discovery and Development Network discovered a genetic alteration that optimizes the antitumor activity of chimeric antigen receptors (CAR) T-cell therapies.¹⁴ This finding may one day enable CAR T-cell therapies to treat solid tumors, as they are currently only FDA-approved for blood cancers.

Advances in Research for Childhood Cancer Survivors

NCI is working to better understand and address the long-term health effects of cancer and cancer treatment for childhood cancer survivors. For example, NCI-supported researchers recently showed that an accumulation of non-major cardiovascular problems in childhood cancer survivors increases their future risk for major cardiovascular events, such as reduced function in parts of the heart.¹⁵ Looking to the future, NCI has launched a new opportunity: Addressing Barriers to Healthcare Transitions for Survivors of Childhood and Adolescent Cancers, which is one component of NCI's implementation of the Childhood Cancer STAR (Survivorship, Treatment, Access, Research) Act.

Gathering, harnessing, and sharing data from every child with cancer has the potential to speed research and discovery in childhood cancers. To this end, NCI developed the Childhood Cancer Data Initiative (CCDI), which includes the CCDI Data Ecosystem. This ecosystem provides infrastructure to expand comprehensive data collection and enhance data sharing from resources such as the National Childhood Cancer Registry and the CCDI Molecular Characterization

¹³ [nih.gov/news-events/news-releases/nih-scientists-develop-ai-tool-predict-how-cancer-patients-will-respond-immunotherapy](https://www.nih.gov/news-events/news-releases/nih-scientists-develop-ai-tool-predict-how-cancer-patients-will-respond-immunotherapy)

¹⁴ pubmed.ncbi.nlm.nih.gov/38600391/

¹⁵ pubmed.ncbi.nlm.nih.gov/38821086/

Initiative (MCI). CCDI is also collaborating with NCI-supported biobanking efforts aligned with the Childhood Cancer STAR Act to support biospecimen collection for both the MCI and the Childhood Cancer Survivor Study.

Improving Cancer Prevention and Control

Researchers estimate that lifestyle modification, vaccination, and other proactive measures could prevent nearly half of all cancer deaths. Cancer prevention and control research focuses on identifying ways to reduce cancer risk and improve cancer outcomes at the individual and population levels. NCI supports a broad range of cancer prevention and control research efforts, including studies on how to implement, improve, and build on current prevention strategies.

NCI aims to engage all communities to ensure the outcomes of cancer prevention and control research efforts benefit all people. For example, the Improving the Reach and Quality of Cancer Care in Rural Populations initiative supports four research projects in rural, low-income areas and other populations that are medically underserved, developing appropriate approaches to the delivery of cancer care service and enhancing cancer care access in rural settings. Well-planned clinical studies are critical to bring evidence-based interventions for cancer prevention and control to practice. The recently established Cancer Prevention and Control Clinical Trials Planning Grant Program, which has funded 14 projects to date, helps facilitate clinical studies across the prevention and control spectrum by filling critical information gaps that may prevent study completion. Decades of NCI support for basic research and cancer prevention and control research made development of the HPV vaccine possible and provided the evidence base for smoking cessation among cancer patients to improve outcomes.

Cancer Prevention Research

Recommended cancer screenings enable early interventions and serve as a critical piece of cancer prevention. More than 15,000 lives could be saved if only 10 percent more of the eligible U.S. population used lung, colorectal, breast, and cervical cancer screening tests.¹⁶ This finding emerged from recent work supported through the Cancer Intervention and Surveillance Modeling Network (CISNET). Since 2000, CISNET has supported over 30 awards for intervention and surveillance modeling projects across 10 cancer types.

Recently, new guidelines on anal cancer screening for people with HIV were released based on the ANCHOR study.¹⁷ This NCI-supported study showed that detecting and treating precancerous growths in the anus greatly reduced a person's risk of developing anal cancer. NCI also supports research to increase cancer screening uptake. For example, a recent NCI-supported study suggests that personalized outreach following automated communication about colorectal cancer screening substantially increased screening completion.

Researchers estimate that viral infections cause about 10 percent of cancer cases worldwide. One such virus, Kaposi sarcoma-associated herpesvirus (KSHV), is responsible for nearly all Kaposi sarcomas. This cancer, which is found in the skin or mucous membranes of the gastrointestinal tract, is one of the most common cancers in people living with HIV. NCI is funding three research projects on immune responses against the virus to develop a protective vaccine against

¹⁶ cancer.gov/news-events/cancer-currents-blog/2024/more-cancer-screening-modeling-study-knudsen

¹⁷ cancer.gov/news-events/cancer-currents-blog/2024/anal-cancer-screening-self-collected

KSHV-driven cancers through the Translational Research Toward Development of a Kaposi Sarcoma Herpesvirus Vaccine funding opportunity.

Cancer Control Research

The Surveillance, Epidemiology, and End Results (SEER) Program is the cornerstone of NCI's cancer control program, providing information on cancer statistics to reduce the cancer burden among the U.S. population. The program includes 18 registries, covering about 48 percent of the U.S. population. SEER is continually making improvements and working toward real-time cancer statistics reporting. Accurate information about cancer incidence and outcomes enables studies that inform cancer prevention and control recommendations. For example, using SEER data, NCI-supported researchers have evaluated the impact of screening and treatment improvements on breast cancer-related deaths between 1975 and 2019.¹⁸ They found that breast cancer deaths decreased by almost 60 percent during those years, and screening improvements were responsible for a quarter of the reduction.

Other NCI-supported researchers have studied the benefits and harms of different breast cancer screening approaches, including the frequency and type of screening. One study's findings, which compared six CISNET models, informed U.S. Preventive Services Task Force decisions about breast cancer screening strategies¹⁹—namely, that mammography every two years between the ages of 40 and 74 reduces breast cancer deaths and increases longevity per mammogram, with possibly more intensive screening needed for women at greater risk.

Cancer Centers Program

The 73 NCI-Designated Cancer Centers, together with their community partners, form the backbone of the nation's cancer research infrastructure. At any given time, hundreds of research studies are underway at cancer centers. Many of these studies are collaborative and involve several cancer centers, as well as other partners. At NCI-Designated Cancer Centers, cutting-edge cancer treatments are delivered to patients in communities across the United States through clinical studies. For example, multiple national studies identified a more effective treatment for patients with a specific type of leukemia, resulting in increased progression-free survival and reduced risk of adverse events. This practice-changing work will shift standard of care for patients with this leukemia. Other important research conducted at cancer centers includes observational studies to better understand why people get cancer. One such study, the 10K Families study, will follow families over time to collect information on how potentially carcinogenic environmental exposures, combined with genetics and modifiable risk factors, impact cancer incidence.

¹⁸ pubmed.ncbi.nlm.nih.gov/38227031/

¹⁹ pubmed.ncbi.nlm.nih.gov/38687505/

NATIONAL INSTITUTES OF HEALTH
National Cancer Institute

Appropriations History¹

Fiscal Year	Budget Estimate to Congress	House Allowance	Senate Allowance	Appropriation
2017 ²	\$5,893,509,000	\$5,388,444,000	\$5,429,769,000	\$5,689,329,000
Rescission				\$0
2018	\$4,474,222,000	\$5,771,181,000	\$5,858,270,000	\$5,964,800,000
Rescission				\$0
2019	\$5,626,312,000	\$6,136,037,000	\$6,147,125,000	\$6,143,892,000
Rescission				\$0
2020	\$5,246,737,000	\$6,444,165,000	\$6,351,863,000	\$6,440,442,000
Rescission				\$0
2021	\$5,881,173,000	\$6,494,155,000	\$6,722,656,000	\$6,559,852,000
Rescission				\$0
2022	\$6,733,302,000	\$6,994,056,000	\$6,772,469,000	\$6,912,522,000
Rescission				\$0
2023	\$6,713,851,000	\$7,378,579,000	\$7,203,064,000	\$7,320,159,000
Rescission				\$0
2024	\$7,820,159,000	\$7,104,159,000	\$7,380,159,000	\$7,224,159,000
Rescission				\$0
2025	\$7,839,141,000	\$7,875,289,000	\$7,490,159,000	\$7,224,159,000
Rescission				\$0
2026	\$4,530,833,000			

¹ Includes funds derived by transfer from the NIH Innovation Account under the 21st Century Cures Act.

² Budget Estimate to Congress includes mandatory financing.

BUDGET AUTHORITY BY OBJECT CLASS

NATIONAL INSTITUTES OF HEALTH National Cancer Institute

Budget Authority by Object Class ¹ (Dollars in Thousands)

	FY 2025 Full-Year CR	FY 2026 President's Budget	FY 2026 +/- FY 2025
Total compensable workyears:			
Full-time equivalent	3,167	2,660	-507
Full-time equivalent of overtime and holiday hours	2	2	0
Average ES salary	\$226	\$226	\$0
Average GM/GS grade	12.8	13.0	0.2
Average GM/GS salary	\$148	\$148	\$1
Average salary, Commissioned Corps (42 U.S.C. 207)	\$133	\$138	\$5
Average salary of ungraded positions	\$173	\$180	\$7
OBJECT CLASSES	FY 2025 CR	FY 2026 President's Budget	FY 2026 +/- FY 2025
Personnel Compensation			
11.1 Full-Time Permanent	\$323,433	\$279,704	-\$43,729
11.3 Other Than Full-Time Permanent	\$186,580	\$168,545	-\$18,034
11.5 Other Personnel Compensation	\$20,018	\$17,406	-\$2,612
11.7 Military Personnel	\$3,311	\$3,028	-\$283
11.8 Special Personnel Services Payments	\$78,329	\$70,888	-\$7,441
11.9 Subtotal Personnel Compensation	\$611,671	\$539,572	-\$72,099
12.1 Civilian Personnel Benefits	\$191,022	\$188,598	-\$2,424
12.2 Military Personnel Benefits	\$593	\$597	\$4
13.0 Benefits to Former Personnel	\$2,975	\$0	-\$2,975
Subtotal Pay Costs	\$806,261	\$728,767	-\$77,495
21.0 Travel & Transportation of Persons	\$14,534	\$5,800	-\$8,735
22.0 Transportation of Things	\$1,444	\$428	-\$1,016
23.1 Rental Payments to GSA	\$30,198	\$9,725	-\$20,473
23.2 Rental Payments to Others	\$132	\$30	-\$102
23.3 Communications, Utilities & Misc. Charges	\$6,510	\$2,022	-\$4,488
24.0 Printing & Reproduction	\$15	\$3	-\$12
25.1 Consulting Services	\$332,815	\$213,521	-\$119,294
25.2 Other Services	\$176,420	\$66,799	-\$109,622
25.3 Purchase of Goods and Services from Government Accounts	\$642,443	\$342,724	-\$299,719
25.4 Operation & Maintenance of Facilities	\$1,549	\$841	-\$707
25.5 R&D Contracts	\$619,632	\$322,057	-\$297,575
25.6 Medical Care	\$7,668	\$3,167	-\$4,501
25.7 Operation & Maintenance of Equipment	\$103,505	\$42,498	-\$61,007
25.8 Subsistence & Support of Persons	\$0	\$0	\$0
25.0 Subtotal Other Contractual Services	\$1,884,032	\$991,607	-\$892,425
26.0 Supplies & Materials	\$38,637	\$15,943	-\$22,694
31.0 Equipment	\$21,665	\$7,868	-\$13,796
32.0 Land and Structures	\$6,516	\$1,918	-\$4,598
33.0 Investments & Loans	\$0	\$0	\$0
41.0 Grants, Subsidies & Contributions	\$4,411,225	\$2,766,680	-\$1,644,545
42.0 Insurance Claims & Indemnities	\$0	\$0	\$0
43.0 Interest & Dividends	\$70	\$41	-\$29
44.0 Refunds	\$0	\$0	\$0
94.0 Financial Transfers	\$0	\$0	\$0
Subtotal Non-Pay Costs	\$6,414,980	\$3,802,066	-\$2,612,913
Total Budget Authority by Object Class	\$7,221,241	\$4,530,833	-\$2,690,408

¹ Includes FTEs whose payroll obligations are supported by the NIH Common Fund.

DETAIL OF FULL-TIME EQUIVALENT EMPLOYMENT (FTE)

**NATIONAL INSTITUTES OF HEALTH
National Cancer Institute**

Detail of Full-Time Equivalent Employment (FTE)

Office	FY 2024 Final			FY 2025 CR			FY 2026 President's		
	Civilian	Military	Total	Civilian	Military	Total	Civilian	Military	Total
Division of Extramural Activities									
Direct:	94	2	96	77	2	79	71	2	73
Total:	94	2	96	77	2	79	71	2	73
Office of the Director									
Direct:	912	3	915	846	4	850	623	4	627
Reimbursable:	3	-	3	3	-	3	3	-	3
Total:	915	3	918	849	4	853	626	4	630
Center for Cancer Research									
Direct:	1,509	10	1,519	1,481	7	1,488	1,262	7	1,269
Reimbursable:	8	-	8	8	-	8	8	-	8
Total:	1,517	10	1,527	1,489	7	1,496	1,270	7	1,277
Division of Cancer Biology									
Direct:	54	-	54	64	-	64	59	-	59
Total:	54	-	54	64	-	64	59	-	59
Division of Cancer Treatment and Diagnosis									
Direct:	242	-	242	231	-	231	215	-	215
Total:	242	-	242	231	-	231	215	-	215
Division of Cancer Prevention									
Direct:	104	-	104	102	-	102	94	-	94
Total:	104	-	104	102	-	102	94	-	94
Division of Cancer Control and Population Sciences									
Direct:	177	1	178	169	1	170	158	1	159
Reimbursable:	2	-	2	2	-	2	2	-	2
Total:	179	1	180	171	1	172	160	1	161
Division of Cancer Epidemiology and Genetics									
Direct:	176	1	177	169	1	170	150	1	151
Total:	176	1	177	169	1	170	150	1	151
Total	3,281	17	3,298	3,152	15	3,167	2,645	15	2,660
Includes FTEs whose payroll obligations are supported by the NIH Common Fund.									

DETAIL OF POSITIONS

NATIONAL INSTITUTES OF HEALTH
National Cancer Institute

Detail of Positions ¹

GRADE	FY 2024 Final	FY 2025 Full-Year CR	FY 2026 President's Budget
Total, ES Positions	2	2	2
Total, ES Salary	\$418,342	\$451,400	\$451,400
General Schedule			
GM/GS-15	361	333	310
GM/GS-14	509	507	455
GM/GS-13	694	632	540
GS-12	376	352	289
GS-11	150	148	124
GS-10	5	5	5
GS-9	101	99	67
GS-8	31	18	11
GS-7	25	19	12
GS-6	6	5	2
GS-5	10	10	5
GS-4	5	3	0
GS-3	6	7	2
GS-2	4	3	2
GS-1	0	1	0
Subtotal	2,283	2,142	1,824
Commissioned Corps (42 U.S.C. 207)			
Assistant Surgeon General	0	0	0
Director Grade	8	6	6
Senior Grade	5	3	3
Full Grade	6	5	5
Senior Assistant Grade	1	1	1
Assistant Grade	0	0	0
Junior Assistant	0	0	0
Subtotal	20	15	15
Ungraded	1,043	1,037	845
Total permanent positions	2,260	2,243	1,798
Total positions, end of year	3,348	3,196	2,686
Total full-time equivalent (FTE) employment, end of year	3,298	3,167	2,660
Average ES salary	\$209,171	\$225,700	\$225,700
Average GM/GS grade	12.8	12.8	13.0
Average GM/GS salary	\$140,626	\$147,728	\$148,467

¹ Includes FTEs whose payroll obligations are supported by the NIH Common Fund.