

Superfund-Related Activities: The Superfund Research Program and the **Worker Training Program**

CONGRESSIONAL JUSTIFICATION FY 2025

Department of Health and Human Services National Institutes of Health



National Institute of Environmental Health Sciences

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DEPARTMENT OF HEALTH AND HUMAN SERVICES

NATIONAL INSTITUTES OF HEALTH

NIEHS Superfund-Related Activities (NIEHS-SF)

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General Notes

- 1. FY 2024 funding levels cited in this document are based on the Continuing Resolution in effect at the time of budget preparation (Public Law 118-35).
- 2. Tables in this document do not include supplemental funding, other than the Appropriations History table.
- 3. Detail in this document may not sum to the subtotals and totals due to rounding.

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DIRECTOR'S OVERVIEW

Director's Overview

The NIH, National Institute of Environmental Health Sciences (NIEHS) Hazardous Substance Basic Research and Training Program, or Superfund Research Program (SRP) and the Worker Training Program (WTP), were created under the Superfund Amendments and Reauthorization Act (SARA) of 1986 to meet the need for innovative strategies and technologies to provide solutions to the magnitude and complexity of Superfund assessment and remediation. SRP and WTP are complementary and collectively referred to as the "NIEHS Superfund Program."

In keeping with the NIEHS mission, the SRP works to reduce the cumulative impacts of environmental burdens by mitigating exposures to harmful chemicals (including per- and polyfluoroalkyl substances), especially for communities that experience these burdens disproportionately. The SRP funds teams of diverse professionals to research, develop, test, and implement unique, solution-oriented approaches that positively impact public health and address complex environmental health problems. The WTP provides grants to nonprofit organizations, including academic institutions and labor-based health and safety organizations are they can deliver training to workers who may face a



Rick Woychik, Ph.D., NIEHS Director

and safety organizations, so they can deliver training to workers who may face a hazardous work environment. As a result, our communities are safer from dangerous exposures and disasters.

The NIEHS SRP and WTP constitute a shared effort to improve human health and the environment through reducing or eliminating the harmful health effects from hazardous environmental exposures. Below are some highlights that demonstrate the breadth of their research and training.

Per- and polyfluoroalkyl substances – known as PFAS – are widely used, long lasting chemicals and some have been linked to harmful health effects in humans and animals. The SRP both leads and supports significant research on PFAS and other contaminants of emerging concern that will result in better remediation outcomes aimed at reducing disease and saving lives. Notable examples include:

- SRP researchers at the University of Kentucky have found that a high fiber diet may decrease risks from PFOS (a class of PFAS) exposure, thereby establishing a way that people can reduce adverse health effects from these toxic chemicals.
- Princeton University SRP-funded scientists have developed a technology to remove PFAS from water that may greatly help to biodegrade or remove PFAS from the environment.
- The small business CycloPure is using its SRP-funded technology, a PFAS water filter, on a larger scale as a commercial product that can be used with various tabletop water pitchers.
- Findings from SRP-funded studies on PFAS informed new EPA water advisories while also providing guidance for clinicians on patient exposure and PFAS-related health effects, benefiting communities and individuals.

WTP's Small Business Innovation Research (SBIR) E-Learning for Hazardous Materials Program is an example of saving lives through training and technology advances and bolstering the capacity to mitigate current and emerging health threats, as well as assisting emerging research institutions compete effectively for federal funding. WTP funds small businesses to develop innovative applications that are used for health and safety training. Through this funding, SBIR grantees have revolutionized methods to deliver training to workers through the development and use of online and web-based learning, mobile applications, video games, virtual reality, and immersive learning systems. These advanced technologies have been used to train workers who are involved in cleanup and response to hazardous waste, illicit drugs, infectious diseases, and natural disasters – ultimately saving property, communities, and lives.



National Institute of Environmental Health Sciences

Overview of the Program

The National Institute of Environmental Health Sciences (NIEHS), National Institutes of Health (NIH), Superfund-Related Activities seek scientific solutions and training advancements to health and environmental problems associated with hazardous waste and disaster response. This program consists of two interdependent components: the Superfund Research Program (SRP) and the Worker Training Program (WTP). The Superfund Amendments and Reauthorization Act (SARA) of 1986 created SRP and WTP within NIEHS.



Recent Accomplishments

SRP:

- Discovered that a high fiber diet may protect against perfluorooctane sulfonate (PFOS) exposure.
- Produced an innovative material that could remove per- and polyfluoroalkyl substances (PFAS) from water.
- Developed a sustainable technology that lays the foundation to extract toxic metals from water.
- Small business, CycloPure, adapted SRP-funded technology – a PFAS water filter – into a commercially available product.

WTP:

- Trained workers on continuing and emerging health and safety hazards such as wildfires, urban flooding, anhydrous ammonia, PFAS, and chemical spills.
- Implemented lessons learned from COVID-19 into broader infectious disease preparedness training resources.
- Held a workshop to promote health, safety, and recovery training following declared disasters.
- Continuing to expand employment opportunities for disadvantaged individuals through the ECWTP.





Rick Woychik, Ph.D., was named Director of NIEHS in June 2020. He received his Ph.D. from Case Western University and postdoctoral training at Harvard Medical School.

Facts and Figures

SRP:

- 50 currently funded grants (FY 2023)
- Awarded grants to over 1,400 researchers at almost 130 institutions and small businesses
- Grantees have patented approximately 200 inventions and published over 14,300 research articles

WTP:

- 22 currently funded grants (FY 2023)
- Trained over 4 million workers since 1987
- Environmental Careers Worker Training Program (ECWTP): Annual investment of \$3.5 million generates a \$100 million yearly average return





National Institute of Environmental Health Sciences



Future Initiatives

SRP is expanding existing research and training infrastructure and leveraging multidisciplinary partnerships to address the effects of emerging challenges including climate change. Scientists are sharing and integrating data and analytical methods to answer new environmental health questions and better understand the exposome, which is a new approach for a comprehensive evaluation of environmental exposures. In addition, SRP is expanding research on exposure and precision environmental medicine. SRP is continuing to facilitate multidisciplinary collaborations and leveraging team science approaches to find solutions to complex environmental problems.

WTP is committed to creating a national workforce that can protect themselves, coworkers, and communities from environmental hazards and that has the skills needed for jobs that engage in environmental cleanup, infrastructure building, and disaster response. The program's grantees continue to broaden partnerships that support training activities, such as with small businesses, worker centers, and community organizations. WTP will also continue reaching vulnerable populations to give them skills that lead to successful employment and support their health and safety needs under the continuing effects of the COVID-19 pandemic, opioid crisis, national emergencies and climate-related disasters, and wildfires.





Program Highlights:

SRP: Providing robust research for PFAS health advisories and clinician guidelines.





WTP: Trained over 150,000 workers in more than 9 million courses in 2023.

SRP: Established a new center that addresses water contamination on Native American lands.





WTP: Trained thousands of workers for recovery from disasters, such as COVID-19 response, wildfires, and Hurricanes Maria and Irma.

SRP: Created cost-effective, energy-efficient methods that remove hazardous substances, including PFAS, from the environment.





WTP: ECWTP selected for White House Justice40 pilot program; has an average 70 percent employment rate.

SRP: Developed a new risk assessment approach that helps to protect the unborn and community health.



Major Changes in the Budget Request

The FY 2025 President's Budget level for the National Institute of Environmental Health Sciences (NIEHS) Superfund activities is \$83.0 million, unchanged from the FY 2023 Final level. Major changes by budget mechanism and/or budget activity detail are briefly described below. Note that there may be overlap between budget mechanism and activity detail and these highlights will not sum to the total change for the FY 2025 President's Budget request for Superfund.

Research Project Grants (RPGs) (-\$0.8 million; total \$3.1 million):

NIEHS Superfund plans to support a total of 10 RPG awards in FY 2025, excluding Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) awards. Research project grants awarded on a competing basis in FY 2023 will receive noncompeting continuation in FY 2025. No additional competing RPGs are anticipated to be awarded in FY 2025.

Research Center Grants (+\$0.9 million; total \$44.4 million):

NIEHS Superfund plans to support a total of 23 Research Center awards in the area of Comparative Medicine in FY 2025, one more than in FY 2023.

Budget Mechanism *

(Dollars in Thousands)

	EX 2022 E' I		EV 2024 CD		FY 2025 President's		EX 2025 1/ EX 2022	
Mechanism	FY	2025 Final	F	2024 CR	Budget		FY 202	25 +/- F Y 2023
	Number	Amount	Number	Amount	Number	Amount	Number	Amount
Research Projects:								
Noncompeting	11	\$2,652	11	\$3,076	10	\$2,901	-1	\$249
Administrative Supplements	(5)	\$192	(4)	\$100	(4)	\$200	-(1)	\$8
Competing:								
Renewal	0	\$0	0	\$0	0	\$0	0	\$0
New	2	\$1,077	0	\$0	0	\$0	-2	-\$1,077
Supplements	0	\$0	0	\$0	0	\$0	0	\$0
Subtotal, Competing	2	\$1,077	0	\$0	0	\$0	-2	-\$1,077
Subtotal, RPGs	13	\$3,920	11	\$3,176	10	\$3,101	-3	-\$820
SBIR/STTR	11	\$2,827	9	\$2,599	9	\$2,597	-2	-\$230
Research Project Grants	24	\$6,747	20	\$5,774	19	\$5,698	-5	-\$1,050
Research Centers								
Specialized/Comprehensive	0	\$0	0	\$0	0	\$0	0	\$0
Clinical Research	0	\$0	0	\$0	0	\$0	0	\$0
Biotechnology	0	\$0	0	\$0	0	\$0	0	\$0
Comparative Medicine	22	\$43,482	23	\$44,304	23	\$44,390	1	\$908
Research Centers in Minority Institutions	0	\$0	0	\$0	0	\$0	0	\$0
Research Centers	22	\$43,482	23	\$44,304	23	\$44,390	1	\$908
Other Research:								
Research Careers	0	\$0	0	\$0	0	\$0	0	\$0
Cancer Education	0	\$0	0	\$0	0	\$0	0	\$0
Cooperative Clinical Research	0	\$0	0	\$0	0	\$0	0	\$0
Biomedical Research Support	0	\$0	0	\$0	0	\$0	0	\$0
Minority Biomedical Research Support	0	\$0	0	\$0	0	\$0	0	\$0
Other	26	\$28,166	24	\$28,196	24	\$28,135	-2	-\$31
Other Research	26	\$28,166	24	\$28,196	24	\$28,135	-2	-\$31
Total Research Grants	72	\$78,395	67	\$78,274	66	\$78,223	-6	-\$172
Ruth L Kirschstein Training Awards:	FTTPs		FTTPs		FTTPs		FTTPs	
Individual Awards	0	\$0	0	\$0	0	\$0	0	\$0
Institutional Awards	0	\$0	0	\$0	0	\$0	0	\$0
Total Research Training	0	\$0	0	\$0	0	\$0	0	\$0
Research & Develop. Contracts	0	\$0	0	\$0	0	\$0	0	\$0
SBIR/STTR (non-add)	(0)	(\$0)	(0)	(\$0)	(0)	(\$0)	(0)	(\$0)
Intramural Research	0	\$0	0	\$0	0	\$0	0	\$0
Res. Management & Support	0	\$4,640	0	\$4,761	0	\$4,812	0	\$172
SBIR Admin. (non-add)		(\$0)		(\$0)		(\$0)		(\$0)
Construction		\$0		\$0		\$0		\$0
Buildings and Facilities		\$0		\$0		\$0		\$0
Total, Superfund	0	\$83,035	0	\$83,035	0	\$83,035	0	\$0

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

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NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES

For necessary expenses for the National Institute of Environmental Health Sciences in carrying out activities set forth in section 311(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9660(a)) and section 126(g) of the Superfund Amendments and Reauthorization Act of 1986, \$83,035,000.

Summary of Changes

(Dollars in Thousands)

	FY	2023 Final	FY 202	FY 2025 President's Budget		Change from 2023 Final
CHANGES	FTEs	Budget Authority	FTEs	Budget Authority	FTEs	Budget Authority
1. Intramural Research:						
A. Built-in cost changes:						
a. FY 2024 effect of FY 2023 pay & benefits increase		\$0		\$0		\$0
b. FY 2024 effect of FY 2024 pay & benefits increase		\$0		\$0		\$0
c. FY 2024 paid days adjustment		50		50		\$0
d. Differences attributable to FY 2024 change in FTE		50		50		\$0 \$0
6. FY 2025 effect of FY 2024 pay & benefits increase		50		50		\$0 \$0
I. FY 2025 effect of FY 2025 pay & benefits increase		50		50		\$0 \$0
g. F I 2025 paid days adjustment		50		50		50
i. Differences autoutable to F F 2025 change in FTE		50		50		50
i. Cost of laboratory supplies materials, other expenses, and non-		50				50
recurring costs	Ī	\$0		\$0		\$0
Subtotal IR built-in cost changes						50
Subtouil, in our in obstemmiges						40
2. Research Management and Support:						
A. Built-in cost changes:						
a. FY 2024 effect of FY 2023 pay & benefits increase		\$1,752		\$1,902		\$21
b. FY 2024 effect of FY 2024 pay & benefits increase		\$1,752		\$1,902		\$68
c. FY 2024 paid days adjustment		\$1,752		\$1,902		\$7
d. Differences attributable to FY 2024 change in FTE		\$1,752		\$1,902		\$0
e. FY 2025 effect of FY 2024 pay & benefits increase		\$1,752		\$1,902		\$23
f. FY 2025 effect of FY 2025 pay & benefits increase		\$1,752		\$1,902		\$32
g. FY 2025 paid days adjustment		\$1,752		\$1,902		\$0
h. Differences attributable to FY 2025 change in FTE		\$1,752		\$1,902		\$0
i. Payment for centrally furnished services		\$0		\$0		\$0
j. Cost of laboratory supplies, materials, other expenses, and non-	ł	\$2.977		\$2.010		\$146
recurring costs		\$2,877		\$2,910		\$140
Subtotal, RMS built-in cost changes						\$296
	FY	2023 Final	FY 202	25 President's Budget	Program FY 2	n Change from 2023 Final
CHANGES	No.	Amount	No.	Amount	No.	Amount
B. Program:						
 Research Project Grants: 						
a. Noncompeting	11	\$2,844	10	\$3,101	-1	\$257
b. Competing	2	\$1,077	0	\$0	-2	-\$1,077
c. SBIR/STTR	11	\$2,827	9	\$2,597	-2	-\$230
Subtotal, RPGs	24	\$6,747	19	\$5,698	-5	-\$1,050
2. Research Centers	22	\$43,482	23	\$44,390	1	\$908
3. Other Research	26	\$28,166	24	\$28,135	-2	-\$31
4. Research Training	0	\$0	0	\$0	0	\$0
5. Research and development contracts	0	\$0	0	\$0	0	\$0
Subtotal, Extramural		\$78,395		\$78,223		-\$172
6. Intramural Research	0	\$0	0	\$0	0	\$0
7. Research Management and Support	0	\$4,640	0	\$4,812	0	-\$124
8. Construction		\$0		\$0		\$0
9. Buildings and Facilities		\$0		\$0		\$0
Subtotal, program changes				<i>\$</i> 0		-\$296
	-		_		_	
Total built-in and program changes	0	\$83,035	0	\$83,035	0	\$0

History of Budget Authority:



Distribution by Mechanism:



Change by Selected Mechanisms:



Division of Translational Heather Patisaul, Ph.D. Toxicology Director Environmental Health Sciences Council Office of Management Associate Director J'Ingrid Mathis Director



National Institute of Environmental Health Sciences

Organization Structure



Budget Authority by Activity*

(Dollars in Thousands)

	FY 2023 Final	FY 2024 CR	FY 2025 President's Budget	FY 2025 +/- FY 2023 Final	
Extramural Research	FTE Amount	FTE Amount	FTE Amount	FTE Amount	
Detail					
Superfund Research	\$51,109	\$50,920	\$50,935	-\$175	
Worker Training Program	\$27,286	\$27,354	\$27,288	\$3	
Subtotal, Extramural	\$78,395	\$78,274	\$78,223	-\$172	
Intramural Research	0 \$0	0 \$0	0 \$0	0 \$0	
Research Management & Support	0 \$4,640	0 \$4,761	0 \$4,812	0 \$172	
TOTAL	0 \$83,035	0 \$83,035	0 \$83,035	0 \$0	

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

Superfund

Authorizing Legislation: Section 311(a) of the Comprehensive Environmental, Response, Compensation, and Liability Act of 1980, as amended, and Section 126(g) of the Superfund Amendments and Reauthorization Act of 1986

Budget Authority (BA):

			FY 2025	
	FY 2023		President's	FY 2025 +/-
	Final	FY 2024 CR	Budget	FY 2023
BA	\$83,035,000	\$83,035,000	\$83,035,000	+\$0

Full-Time Equivalent (FTE) employment levels are included with the regular NIEHS appropriation.

Program funds are allocated as follows: Competitive Grants/Cooperative Agreements and Other.

Overall Budget Policy: The FY 2025 President's Budget request for National Institute of Environmental Health Sciences (NIEHS) Superfund activities is \$83.0 million, unchanged from the FY 2023 Final level. This funding level will support basic, translational, and clinical research as well as training across Superfund's mission areas. The NIEHS Superfund Research Program (SRP) will continue to support problem-based, solution-oriented research to advance knowledge and strategies to prevent and reduce exposures to hazardous substances. The NIEHS Worker Training Program (WTP) will continue to focus on delivering high-quality, evidence based occupational health and safety training to educate and equip workers with the knowledge and skills to safely handle hazardous materials and provide opportunities for individuals from disadvantaged communities to obtain environmental careers.

Program Descriptions

NIH/NIEHS Superfund Research Program (SRP)

Research Saves Lives through Advances in Science and Health

The NIEHS Superfund Research Program (SRP) provides practical, scientific solutions to protect health, the environment, and communities.¹ The SRP works to learn more about ways to protect the public, and ultimately helping to save lives, from exposure to hazardous substances found in contaminated water, soil, and air at hazardous waste sites throughout the United States.

¹ youtube.com/watch?v=UlyOZszySzs

SRP: Highlights of Past Advances in Science, Health, Technology, and Training That Help Save Lives



TAMU developed sorbents to remove polycyclic aromatic hydrocarbons at a Superfund site in Montana. Photo courtesy of TAMU.

The SRP continually builds on past successes to reach their goals such as better understanding the link between chemical exposure and disease, which provides the foundation and capacity to protect our health and communities. One such success built on decades of research is from the SRP Center at Texas A&M University (TAMU) where researchers developed a novel sorbent technology that can bind to hazardous chemicals, reducing their uptake and bioavailability. These broad-acting materials can be added to the environment or can be ingested by humans or animals to reduce harmful contaminant exposures following natural disasters, chemical spills, and other emergencies. The team is commercializing these new products, resulting in the establishment of two new small businesses.

SRP has funded other research resulting in new products and therapies. One example is at the University of Maryland, where SRP-funded scientists developed a method

to immobilize and degrade polychlorinated biphenyls (PCBs) in aquatic environments. The technology, now commercialized, has proven effective in the field and continues to be used to help restore our environment. In another example, University of California (UC) Davis grantees translated basic research on insects and rodents into promising new therapies and pain treatment options. The team is developing these special therapies to treat pain in humans and animals through a small business partly funded by SRP. SRP also supported Oregon State University researchers to develop, and eventually commercialize, silicone wristbands to track numerous unique exposures. These "bracelets" measure low levels of hundreds of chemicals that people can be exposed to during daily life offering another way to better understand how we may be affected by our environment.

Another notable success from SRP-funded researchers at University of California, Berkeley (UC-B) involves a new approach to risk assessment that predicts the toxicity of chemicals based on shared characteristics. Called the *key characteristics approach*, the stepwise screening method helps risk assessors more easily identify, organize, and summarize the potential health risks of many different chemicals. This approach helps decision-makers sift through thousands of untested chemicals, allowing them to prioritize resources for studying potentially hazardous chemicals more closely, thereby saving time, resources, and potentially lives.

SRP: Current Activities That Focus on Ensuring New Advances in Science and Health That Protect Our Health

SRP-funded researchers at the University of Rhode Island (URI) in partnership with Harvard and the Silent Spring Institute have elucidated pathways through which per- and polyfluoroalkyl substances (PFAS) can harm health, providing valuable information that decision-makers can use to better protect communities and patients. Their work has informed federal advisories for PFAS in drinking water, as well as recommendations for clinical care of

water, as well as recommendations for clinical patients exposed to these chemicals. "Our findings on PFAS-induced immunotoxicity and our calculations from the SRP-funded study helped EPA determine a reference dose for each contaminant — that is, a concentration level at or below which daily exposure is unlikely to lead to negative health effects," the primary scientist on the study explained. The team is also investigating how PFAS are moving into the food chain, including shellfish, helping us better understand risks of seafood consumption to human health.



Members of the URI Center collect shellfish from the Quashnet River to test for PFAS. Photo courtesy of URI.



Polychlorinated biphenyls (PCBs), a large group of persistent chemicals found at

UK researchers uncovering nutrition's role in preventing exposure-related diseases. Photo courtesy of UK.

approximately 30 percent of Superfund sites, have been linked to cancer and other harmful health effects. SRP-funded researchers at the University of Kentucky (UK) discovered that nutrients such as vitamin E and omega-3 fatty acids, primarily found in fish, can reduce cell damage from PCB exposure by blocking the cellular pathways that lead to oxidative stress and inflammation. Similarly, they found that inulin, a type of fiber found in vegetables, may protect against cardiovascular problems, including heart disease resulting from exposure to PCBs. A diet rich in inulin also reduced fat accumulation in the liver, protected the gut microbiome, and decreased atherosclerosis in mice exposed to PCBs. According to the scientists, these findings point to potential nutritional interventions for people who are exposed to PCBs. Moreover, the researchers discovered that diets rich in fruits and vegetables can reduce the risk for PCB-associated type 2 diabetes found in people.



TAMU SRP trainees respond to air pollution using the RAPiD air sampling mobile monitor. Photo courtesy of TAMU.

SRP has also worked to help the communities in the East Palestine, Ohio, following the February 2023 train derailment. A team of SRP-funded researchers from UK, Wayne State University, and Duke University initiated pilot studies to establish baseline health biological markers and will inform the path for further research. Additionally, they assessed water quality in the Mahoning River watershed, responding to the community's need to know if the derailment caused their environment to be dangerous. In a separate SRP-funded effort in East Palestine, TAMU researchers deployed their Responding to Air Pollution in Disasters RAPiD) air sampling mobile monitors to collect data for comparison to safe levels. The research teams

compared their findings to levels reported by EPA and used social media to communicate results to the community, ultimately protecting public health.

SRPI: Moving Forward - Activities that Advance Science and Health to Address Critical Environmental Health Issues Facing Our Nation



Community member views personalized exposure results at a report back event in Puerto Rico. Photo courtesy of Northeastern University.

To ensure that emerging technologies develop without causing illness or injury to workers and the public, a professional workforce must be prepared with the ability to anticipate, recognize, evaluate, and control exposures to hazardous materials in emerging technology workplaces. Therefore, using SRP funding, the University of Minnesota, the University of Iowa, and University of Utah have formed the Interdisciplinary Training, Education and Research Activities for Assessing and Controlling Contaminants from Emerging Technologies (INTERACCT) Program. The innovative program provides flexible, online education materials that instructors can first use to train themselves and then others, on topics that fit the needs of their organizations. All materials will be freely available on the web, ensuring that the INTERACCT Program has a regional, national, and global reach.

SRP supports research to identify strategies to protect public health after a disaster and help communities better prepare for climate-related events. The Digital Exposure Report-Back Interface (DERBI), developed by the Silent Spring Institute and the Northeastern University SRP Center, allows scientists to

Superfund Research Program

SRP: Protecting Tribal Populations

The Native American (NA) people have long experienced lower health status when compared with other Americans. To change this, SRP scientists are working with NA communities to help protect their health and way of life.

Native Americans in the Northern Plains have experienced urinary concentrations of arsenic and uranium 2.5 to 5 times higher than other U.S. populations, which can contribute to an elevated burden of cardiovascular disease. To help address this issue, a new SRP Center at Columbia University is partnering with Missouri Breaks, an NA research organization. The collaboration will test and monitor for hazardous chemicals while working to find sustainable water remediation strategies to help improve Tribal health.



UA SRP collaborator helps install greenhouses to promote food sovereignty in Navajo Nation. Photo courtesy of UA.

Thinking Zinc is an SRP-funded clinical trial at the University of New Mexico (UNM) SRP Center. The objective of the study is to conduct an intervention trial to assess the effect of dietary zinc supplementation to mitigate the toxicity of environmental metal exposures in Navajo communities. Thinking Zinc works through a participatory design process that integrates strong science with cultural needs.

SRP-funded researchers are also working to find ways that will remove hazardous contaminants from Native American environments. One example is another SRP study at UNM, where grantees are working with Tribal partners to develop a strategy that uses plants and fungi to remove metals from soil in abandoned uranium mines. Scientists at Yale are helping NA groups in Maine by pilot testing nano-scaled nutrient amendments that accelerate the uptake of PFAS from soil into plants. By removing PFAS from the soil, Tribal populations will have a cleaner environment with fewer health risks. And at the University of Arizona (UA), SRP scientists have developed green surfactants called rhamnolipids to remove uranium and rare earth elements from water near uranium mining sites that should help to reduce these toxins from being ingested by Tribal communities.

report personalized exposure results, such as in the context of contaminant releases following disasters and climate change. This interactive web-based tool takes complex chemical exposure data and presents it in a way that the average person can understand. They can zoom in on a particular class of chemicals and get tips on how to reduce their exposures, such as avoiding products with fragrances or keeping dust levels low in the home. Moving forward, this tool may have broad implications for public health.



K.C. Donnelly 2023 awardees. Image courtesy of MDB, Inc.

Researchers at the URI SRP Center are also using DERBI to communicate results of PFAS testing to private well owners on Cape Cod, Massachusetts.

Climate change continues to disrupt our environment such as wildfires that have become more frequent, intense, and costly for the United States. Over the years, these fires have disastrous consequences for human health. In a ground-breaking study, researchers from the University of North Carolina at Chapel Hill SRP Center explored the biological mechanisms behind heart and lung responses to wildfire smoke. The scientists found a potential biological pathway through which wildfire smoke can lead to adverse cardiopulmonary health events paving the way to help reduce lives lost to wildfire smoke.

For years, the SRP has been inspiring the next generation of scientists by supporting more than 2,500 graduate-level trainees. Trainees gain experience in multi- and cross-disciplinary training, networking, and solution-oriented research in a highly collaborative environment. SRP also offers opportunities for exceptional trainees through administrative and externship award supplements. For example, using NIH administrative supplements to support diversity in the workforce, the SRP has recruited talented graduate students and post doctorates from groups that have been shown to be underrepresented in health-related research, such as individuals from rural or low socioeconomic backgrounds.

The SRP established an award honoring the late K.C. Donnelly, Ph.D., whereby trainees enhance their current research by working side by side with researchers in other areas of expertise. Over 86 trainees have received the award since its inception in 2011, enabling trainees to learn new methods and techniques, and tackling difficult scientific questions.

<u>Budget Policy</u>: The FY 2025 President's Budget request for Superfund Research is \$50.9 million, a decrease of \$0.2 million compared to the FY 2023 Final level.

Worker Training Program

NIH Research Saves Lives through Advances in Science, Health, and Training

The NIEHS Worker Training Program (WTP) provides the nation with a workforce trained in the safe handling of hazardous materials and waste. This includes thousands of workers employed at Superfund sites. WTP funds training conducted in all regions of the country through a network of non-profit organizations. These organizations are committed to protecting workers and their communities by creating and delivering high quality safety and health curricula. The



Trainees graduate from RACEJT program, Anchorage, Alaska. Photo courtesy of WRUC.

program has built a national workforce that can protect themselves, co-workers, and communities from environmental hazards as well as respond to natural and human-made disasters.

WTP: Highlights of Past Advances That Help Save Lives

The WTP has built many of its activities over the years with the help of partnerships from across the country. For example, grantee OAI, Inc. and Mendez Environmental have partnered for more than 16 years to offer courses in lead and asbestos abatement, disaster preparedness, and infectious diseases awareness for workers throughout Louisiana and New Mexico. The OAI and Mendez Environmental partnership fills a crucial need to strengthen worker and community resiliency. In recent years, this partnership has focused on engagement with Hispanic small businesses and contractors, Spanish-speaking day-laborers, and disadvantaged workers. These individuals have unique experiences in a variety of industries, transitional and temporary work, and Superfund or oil and gas sites. Since 2009, this partnership has trained almost 5,000 workers.

Another WTP grantee, the Western Region Universities Consortium (WRUC) led by the University of California, Los Angeles Labor Occupational Safety and Health Program, delivers training to help workers protect themselves from hazardous exposures, and to prepare for and respond to disasters and emergencies. In 2020, with the onset of the COVID-19 pandemic, WRUC was able to leverage existing training resources along with its partnership with the Service Employees International Union (SEIU) Nurse Alliance of California. They quickly launched a series of virtual trainings to help nurses on hospital frontlines, acute care centers, skilled nursing facilities, and correctional facilities understand what measures were required to protect them from COVID-19 exposures at work. This instruction along with other WTP activities across the nation, led to workers trained in nearly 14,000 infectious disease awareness courses and over 10,000 community-level infectious disease awareness courses from January to August 2020, ultimately saving an untold number of lives.

WTP: Current Activities That Focus on Ensuring New Advances That Protect Our Health

In May 2023, the National Trainers Exchange in Indianapolis, Indiana brought together 300 participants who represented WTP consortia and partners. Participants engaged in more than 80 concurrent workshops that were led by trainers who shared best practices in training and techniques. The Exchange presents an opportunity for WTP to leverage partnerships among grantees, foster trainer development, and serve as a platform for trainers to continually refine their practices.



Hazardous waste training to Sheet Metal Workers Local 58, Syracuse NY. Photo courtesy of CPWR.

Revitalizing America's Rust Belt is important for economic success in the Northeast and Midwest. To help, WTP is funding the Center for Construction Research and Training (CPWR), which has delivered hazardous waste training to members of the Sheet Metal Workers Local 58 in Syracuse, NY. These workers received training so that they could safely install new tooling and replacement of existing ducts where hydrofluoric acid had formed crystals on inner surfaces. Cleanup work is also being performed in upstate New York as part of Global Foundries plans to expand manufacturing facilities. Once workers have completed WTP-funded hazardous waste

training they will be qualified to fill these critically important jobs abating dangerous materials, while protecting themselves and their communities.

Fostering diversity and addressing professional barriers through hands-on training continues to be a key objective of the WTP. One nonprofit organization, Building Pathways, a partner of WTP grantee CPWR, is using an innovative pre-apprenticeship model to deliver training and advance sustainable careers in construction. Building Pathways heightens the visibility of tradeswomen, combats professional barriers to employment, and supports disadvantaged workers such as women and people of color entering the construction field. "We've definitely seen progress," said the executive director of Building Pathways in Boston. "In Massachusetts, the percentage of women in union building trades apprenticeships was around 4 percent in 2012, and now it's over 10 percent."

WTP also funds critical health and safety training for American Indian and Alaska Native workers and communities across the United States. For example, the Alabama Fire College Workplace Safety Training (AFC) program delivers training to American Indian tribes and has partnered with the Native American Fish and Wildlife Society and the United South and Eastern Tribes. WTP grantee Western Region Universities Consortium (WRUC) provides a variety of courses to tribes in Alaska through consortium member University of Washington as well as tribal emergency response organizations in California and Arizona.

The WTP is additionally funding activities to help ensure that workers and communities reduce their risks to PFAS:

 In August 2022, WTP held a grantee webinar/discussion about workplace and community exposures to PFAS. Some WTP grantees are partnering with subject matter experts to deliver



Trainees from the St. Regis Mohawk Tribe in NY during hazardous waste worker training. Photo courtesy of by ATC.

training to help address concerns about PFAS, and to ensure that appropriate protocols and equipment are in place to protect workers from exposure.

- The Community College Consortium for Health and Safety Training (CCCHST)/National Partnership for Environmental Technology Education (PETE) has delivered presentations on PFAS to all their trainers to protect workers and communities.
- The Midwest Consortium for Hazardous Waste Worker Training (MWC) led by the University of Minnesota provided workplace specific PFAS information to Minnesota Metro Counties Association trainees in November 2022.



Workers during hazardous materials training. Photo courtesy Atlantic Center for Occupational Health and Safety.

The East Palestine train derailment created trauma and fear in the impacted communities and raised concerns for railway workers. Expert railway training is one way to help ensure that the health and lives of workers and communities are not endangered. Consequently, the International Brotherhood of Teamsters (IBT) Consortium consisting of eleven IBT training centers and the Rail Workers Hazardous Materials Training Program, comprised of nine rail unions, developed courses to train rail workers on how to prevent and respond to uncontrolled releases of harmful substances, such as the Chemical Emergency Response Course. This course illustrates one of the primary goals of the IBT Consortium's Rail Workers Hazardous Materials Training Program, which is funded by WTP.

Worker Training Program

WTP: Environmental Careers Worker Training Program and Workforce Development

The WTP Environmental Career Worker Training Program (ECWTP)² provides training to individuals from disadvantaged and underserved communities so that they can obtain careers in environmental cleanup, construction, hazardous waste removal, and emergency response. An economic impact study showed that an annual federal investment of \$3.5 million in the ECWTP generated a \$100 million return. Recently, ECWTP was selected as a participant in the White House Justice40 Initiative to ensure that federal agencies deliver 40 percent of the overall benefits of climate, clean energy, affordable and sustainable housing, clean water, and other investments to disadvantaged communities. HHS highlighted ECWTP as one of the department's notable programs covered by Justice40. Since the beginning of the program, grantees have trained approximately 14,500 workers with an average 72 percent% employment rate. This training also offers an alternative to costly incarceration, supports ex-offender rehabilitation, and helps reduce recidivism. Findings show that the program resulted in \$22.1 million in crime cost savings.

\$22.1 million in crime cost savings (recidivism reduction effect)

As part of the ECWTP, partnerships with local businesses help establish hiring agreements. Due to the reputation of ECWTP some employers have established first source hiring agreements with grantee training programs. For example, CPWR's partnership with JobTrain in East Palo Alto, California helped initiate a project labor agreement with the San Francisco Public Utilities Commission (SFPUC). This agreement ensures that ECWTP graduates are first in line for referral to fill open positions at SFPUC job sites.

ECWTP training empowers workers with the skills, knowledge, and resources needed for placement and success in environmental careers. Upon program completion and graduation, many trainees find jobs in solar and wind energy industries or careers in hazardous waste cleanup and transportation, emergency response, construction, or carpentry. With new skillsets, trainees become experts in their field and leaders in their respective workplaces and communities.

WTP: Ongoing Activities that Address Critical Environmental Health Issues

As WTP looks to the future, determining where best to focus program resources is an important step. A needs assessment was conducted to determine training gaps and challenges among grantees. Findings from this assessment, as well as lessons learned from the COVID-19 pandemic, will help WTP create a network of grantees and trainers who are equipped for the next infectious disease event or pandemic.



HAZWOPER training with participants from Los Angeles Black Worker Center. Photo courtesy of WRUC.

An important resource established by the WTP is the searchable database called the Material Upload and Search Tool for Infectious Disease (MUSTID). MUSTID provides easy access to information and documents on infectious diseases and worker safety. Online materials include guidance documents (e.g., clinical and operational guidelines, policies/regulations, executive orders), FAQs, infographics, and scientific articles including research articles, reviews, and commentaries/editorials.

A considerable concern among many Americans is climate change. Wildfires have ravaged many U.S. communities and over the coming century this may become worse due to climate change. To help, WTP updated its Wildfire Training Tool for

² niehs.nih.gov/careers/assets/docs/wtp_ectwp_factsheet_2022_508.pdf

grantees who deliver training on the wildland-urban interface, wildfire smoke safety, and disaster preparedness. The tool provides essential instruction on how to protect against and control hazards associated with the response, assessment, and cleanup activities associated with wildfires.

<u>Budget Policy</u>: The FY 2025 President's Budget request for Worker Training Program is \$27.3 million, an increase of \$3,000 from the FY 2023 Final level.

Research Management and Support (RMS)

The RMS allocation provides administrative, logistical, and scientific support in the review, award, and monitoring of SRP research grants and WTP training grants. Other RMS functions include program planning, coordination, communications, technical assistance, and evaluation, as well as liaison with other Federal agencies, interest groups, and the public. For example, RMS supported an evaluation of SRP grantees' solution-oriented disaster-related research useful for informing health-protective decisions to promote resilience—the ability to prepare for, recover from, and adapt to the impacts of climate change. Additionally, RMS funds the National Clearinghouse for Worker Safety and Health Training, a national resource that provides technical assistance to hazardous waste workers, grantees, and the public. In 2023, this resource included development of training tools on topics such as urban flooding, wildfires, and infectious disease hazards including COVID-19, as well support for meetings and webinars.

<u>Budget Policy</u>: The FY 2025 President's Budget request for Research Management & Support is \$4.8 million, an increase of \$0.2 million from the FY 2023 Final level.

F'and Ward	Budget Estimate	House	Senate	A
Fiscal Year	to Congress	Allowance	Allowance	Appropriation
2016	\$77,349,000	\$77,349,000	\$77,349,000	\$77,349,000
Rescission				\$0
2017 1	\$77,349,000	\$77,349,000	\$77,349,000	\$77,349,000
Rescission				\$0
2018	\$59,607,000	\$75,370,000		\$77,349,000
Rescission				\$0
2019	\$53,967,000	\$80,000,000	\$78,349,000	\$79,000,000
Rescission				\$0
2020	\$66,581,000	\$80,000,000	\$81,000,000	\$81,000,000
Rescission				\$0
2021	\$73,688,000	\$83,000,000	\$81,500,000	\$81,500,000
Rescission				\$0
2022	\$83,540,000	\$83,540,000	\$84,540,000	\$82,540,000
Rescission				\$0
2023	\$83,035,000	\$83,035,000	\$83,035,000	\$83,035,000
Rescission				\$0
Supplemental				\$2,500,000
2024	\$83,035,000	\$75,000,000	\$83,035,000	\$83,035,000
Rescission				\$0
2025	\$83,035,000			

Appropriations History

¹ Budget Estimate to Congress includes mandatory financing.

AUTHORIZING LEGISLATION

NATIONAL INSTITUTES OF HEALTH Superfund

Authorizing Legislation

	PHS Act/ Other Citation	U.S. Code Citation	2024 Amount Authorized	FY 2024 CR	2025 Amount Authorized	FY 2025 President's Budget	
Environmental Protection		42§9660)				
Agency's Hazardous	CERCLA	Section					
Substance Superfund	Section 311(a)	9660(a)	Indefinite		Indefinite		
			~	\$83,035,000	~	\$83,035,000	
Superfund	SARA	Section	Indefinite		Indefinite		
Superiana	Section 126(a)	9660(a)	machinite		Indefinite)		
Total, Budget Authority				\$83,035,000		\$83,035,000	

Amounts Available for Obligation 1

(Dollars in Thousands)

Source of Funding	FY 2023 Final	FY 2024 CR	FY 2025 President's Budget
Appropriation	\$83,035	\$83,035	\$83,035
Mandatory Appropriation: (non-add)			
Type 1 Diabetes	(\$0)	(\$0)	(\$0)
Other Mandatory financing	(\$0)	(\$0)	(\$0)
Subtotal, adjusted appropriation	\$83,035	\$83,035	\$83,035
OAR HIV/AIDS Transfers	\$0	\$0	\$0
Subtotal, adjusted budget authority	\$83,035	\$83,035	\$83,035
Unobligated balance, start of year	\$0	\$0	\$0
Unobligated balance, end of year (carryover)	\$0	\$0	\$0
Subtotal, adjusted budget authority	\$83,035	\$83,035	\$83,035
Unobligated balance lapsing	\$0	\$0	\$0
Total obligations	\$83,035	\$83,035	\$83,035

¹ Excludes the following amounts (in thousands) for reimbursable activities carried out by this account: FY 2023 - \$9,956 FY 2024 - \$14,000 FY 2025 - \$14,000

Budget Authority by Object Class 1

(Dollars in Thousands)

		FY 2024 CR	FY 2025 President's Budget
Total co	mpensable workyears:		
	Full-time equivalent	0	0
	Full-time equivalent of overtime and holiday hours	0	0
	Average ES salary	\$0	\$0
	Average GM/GS grade	0.0	0.0
	Average GM/GS salary	\$0	\$0
	Average salary, Commissioned Corps (42 U.S.C. 207)	\$0	\$0
	Average salary of ungraded positions	\$0	\$0
	OBJECT CLASSES	FY 2024 CR	FY 2025 President's Budget
	Personnel Compensation		
11.1	Full-Time Permanent	\$1,208	\$1,242
11.3	Other Than Full-Time Permanent	\$91	\$93
11.5	Other Personnel Compensation	\$29	\$29
11.7	Military Personnel	\$0	\$0
11.8	Special Personnel Services Payments	\$0	\$0
11.9	Subtotal Personnel Compensation	\$1,328	\$1,365
12.1	Civilian Personnel Benefits	\$520	\$538
12.2	Military Personnel Benefits	\$0	\$0
13.0	Benefits to Former Personnel	\$0	\$0
	Subtotal Pay Costs	\$1,848	\$1,902
21.0	Travel & Transportation of Persons	\$52	\$53
22.0	Transportation of Things	\$0	\$0
23.1	Rental Payments to GSA	\$0	\$0
23.2	Rental Payments to Others	\$0	\$0
23.3	Communications, Utilities & Misc. Charges	\$0	\$0
24.0	Printing & Reproduction	\$0	\$0
25.1	Consulting Services	\$12	\$13
25.2	Other Services	\$2,602	\$2,589
25.3	Purchase of Goods and Services from Government Accounts	\$244	\$252
25.4	Operation & Maintenance of Facilities	\$0	\$0
25.5	R&D Contracts	\$0	\$0
25.6	Medical Care	\$0	\$0
25.7	Operation & Maintenance of Equipment	\$0	\$0
25.8	Subsistence & Support of Persons	\$0	\$0
25.0	Subtotal Other Contractual Services	\$2,859	\$2,854
26.0	Supplies & Materials	\$0	\$0
31.0	Equipment	\$3	\$3
32.0	Land and Structures	\$0	\$0
33.0	Investments & Loans	\$0	\$0
41.0	Grants, Subsidies & Contributions	\$78,274	\$78,223
42.0	Insurance Claims & Indemnities	\$0	\$0
43.0	Interest & Dividends	\$0	\$0
44.0	Refunds	\$0	\$0
	Subtotal Non-Pay Costs	\$81,187	\$81,133
	Total Budget Authority by Object Class	\$83,035	\$83,035

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

Salaries and Expenses

(Dollars in Thousands)

		FY 2025
Object Classes	FY 2024 CR	President's
		Budget
Personnel Compensation		
Full-Time Permanent (11.1)	\$1,208	\$1,242
Other Than Full-Time Permanent (11.3)	\$91	\$93
Other Personnel Compensation (11.5)	\$29	\$29
Military Personnel (11.7)	\$0	\$0
Special Personnel Services Payments (11.8)	\$0	\$0
Subtotal, Personnel Compensation (11.9)	\$1,328	\$1,365
Civilian Personnel Benefits (12.1)	\$520	\$538
Military Personnel Benefits (12.2)	\$0	\$0
Benefits to Former Personnel (13.0)	\$0	\$0
Subtotal Pay Costs	\$1,848	\$1,902
Travel & Transportation of Persons (21.0)	\$52	\$53
Transportation of Things (22.0)	\$0	\$0
Rental Payments to Others (23.2)	\$0	\$0
Communications, Utilities & Misc. Charges	\$0	\$0
(23.3)	φ 0	\$ 0
Printing & Reproduction (24.0)	\$0	\$0
Other Contractual Services		
Consultant Services (25.1)	\$12	\$13
Other Services (25.2)	\$2,602	\$2,589
Purchase of Goods and Services from	\$244	\$252
Government Accounts (25.3)	$\psi 2 + 1$	$\psi 252$
Operation & Maintenance of Facilities (25.4)	\$0	\$0
Operation & Maintenance of Equipment (25.7)	\$0	\$0
Subsistence & Support of Persons (25.8)	\$0	\$0
Subtotal Other Contractual Services	\$2,859	\$2,854
Supplies & Materials (26.0)	\$0	\$0
Subtotal Non-Pay Costs	\$2,910	\$2,907
Total Administrative Costs	\$4,758	\$4,809

	FY 2023	FY 2024	FY 2025	
Institutes and Centers	Actual	Estimate	Estimate	
NCI	3,250	3,468	3,468	
NHLBI	943	966	966	
NIDCR	226	252	252	
NIDDK	698	756	756	
NINDS	650	713	729	
NIAID	2,109	2,180	2,180	
NIGMS	189	219	219	
NICHD	561	602	624	
NEI	272	291	300	
NIEHS	634	685	685	
NIA	584	650	800	
NIAMS	241	250	258	
NIDCD	134	140	140	
NIMH	605	623	635	
NIDA	419	445	470	
NIAAA	204	238	238	
NINR	84	106	106	
NHGRI	356	385	385	
NIBIB	123	160	160	
FIC	54	61	61	
NIMHD	94	210	210	
NCCIH	94	110	115	
NCATS	278	298	319	
NLM	642	741	741	
OD	1,134	1,217	1,241	
ARPA-H	47	112	137	
Central Services:				
OD - CS	871	911	916	
CC	1,765	2,034	2,034	
CSR	485	510	510	
CIT	199	237	237	
ORS	479	542	543	
ORF	756	830	830	
Subtotal Central Services ¹	4,555	5,064	5,070	
PHS Trust Fund (non-add) ²	4	4	4	
CRADA (non-add) ³	4	4	4	
Total	19,180	20,942	21,265	

NIH Detail of Full-Time Equivalent Employment (FTE) By IC

¹ Reflects FTE associated with Central Services positions whose payroll costs are financed from the NIH Management Fund and the NIH Service and Supply Fund.

 2 PHS Trust Fund positions are incorporated within the ICs Direct-funded civilian FTE category and are treated as non-add values.

³ CRADA positions are distributed across multiple ICs and are treated as non-add values.

NIH Budget Mechanism Table

	F	v 2023	F	V 2024	F	V 2025	F	Y 2025
123	1	Final ⁹	CR ⁹		President's Budget ⁹		+/-	
(Dollars in Thousands)		Amount	No	Amount	No	Amount	FY 2 No	Amount
Research Projects:	20.177	\$17.075.116	21.200	\$10,020,410	21 401	\$10,444,480	1 204	£1 460 265
Noncompeting	30,177	\$17,975,116	31,389	\$19,039,410	(2,000)	\$19,444,480	(704)	\$1,469,365
Administrative Supplements	(3,793)	\$6 783 224	(3,048)	\$5 642 227	(2,999)	\$6,060,010	(-/94)	-185,480
Competing	41,282	\$0,783,224	9,/39	\$3,043,337	10,275	\$6,069,919	-855	-\$/13,303
Subiolal, RPGS	41,285	\$25,295,450	41,128	\$25,050,898	1 992	\$23,800,009	4/1	\$372,380
Research Project Grants	43 176	\$26 580 896	42 973	\$26 307 866	43 636	\$27 141 249	460	\$560 352
	13,170	\$20,000,000	.2,775	\$20,507,000	15,050	<i>\$27,111,215</i>	.00	\$500,552
Research Centers:	1.0.15	62 271 00 I	1.065	60 017 (FF		\$2.400.40 5		#200 50 J
Specialized/Comprehensive	1,045	\$2,271,984	1,065	\$2,317,655	1,119	\$2,480,487	74	\$208,504
Clinical Research	57	328,369	36	258,996	24	198,750	-33	-129,619
Biotechnology	40	64,909	40	65,869	30	42,739	-10	-22,171
Comparative Medicine	49	137,280	4/	131,225	47	130,065	-2	- /,214
Research Centers in Minority Institutions	1 214	/8,613	1 211	(9,164	1 242	/9,164	20	\$50.051
Research Centers	1,214	\$2,881,155	1,211	\$2,832,909	1,243	\$2,931,200	29	\$50,051
Other Research:	5.0.40	#000 00 F	5.020	0005151		0045155		¢1.6.000
Research Careers	5,043	\$928,335	5,030	\$935,151	5,048	\$945,157	5	\$16,822
Cancer Education	83	23,219	82	22,837	82	22,837	-1	-382
Cooperative Clinical Research	269	485,641	245	485,100	436	1,008,525	16/	522,884
Biomedical Research Support	120	55 750	120	105,257	4/	34,321	- /9	-37,336
Othon	2 526	1 722 101	2 457	1 605 568	2 764	1 861 205	-124	-30,236
Other Becaureh	2,330	\$2 226 712	2,437	1,003,308	2,704	\$2 017 757	106	\$581.046
Total Research Grants	52 601	\$32 798 763	52 204	\$32 350 433	53 286	\$33,990,212	685	\$1 191 449
	52,001	\$52,790,705	52,201	\$52,550,155	55,200	\$55,770,212	005	<i><i>w</i>1,171,117</i>
Ruth L Kirchstein Training Awards:	FTTPs		FTTPs		<u>FTTPs</u>		FTTPs	
Individual Awards	3,968	\$191,272	4,113	\$200,800	4,122	\$203,304	154	\$12,032
Institutional Awards	13,469	793,060	13,812	820,640	13,800	830,904	331	37,844
Iotal Research Training	17,437	\$984,331	17,925	\$1,021,440	17,922	\$1,034,208	485	\$49,876
Research & Development Contracts	2.745	\$4.032.891	2.623	\$3.857.225	2.933	\$4,582,467	188	\$549.576
(SBIR/STTR) (non-add) ³	(101)	(75,193)	(79)	(61,364)	(166)	(130,942)	(65)	(55,750)
(
Intramural Research		\$5,046,199		\$5,133,445		\$5,274,376		\$228,177
Research Management & Support		2,331,451		2,442,336		2,689,558		358,107
SBIR Admin (non-add) ³		(10,098)		(10,881)		(11,287)		(1,188)
Office of the Divertor Appropriation 3,4		(3.066.208)		(2.885.514)		(3 044 455)		(-21,753)
Office of the Director - Appropriation		2.021.814		1.841.120		2.062.661		40.847
$OPIP (non add)^{3,4}$		(309.393)		(309.393)		(259, 393)		(-50,000)
Common Fund (non-add) ^{3,4}		(735,001)		(735.001)		(722,401)		(-12,600)
common 1 and (non-add)		(,		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		(,)		(,,
ARPA-H		1,500,000		1,500,000		1,500,000		0
Buildings and Facilities ⁵		380,000		380,000		400,000		20,000
Appropriation ³		(350,000)		(350,000)		(350,000)		(0)
T ID: 1 (67		141 450		250.000		260.000		118 550
Type T Diabetes Mandatory Cancer Moonshot ⁶		-1+1,+30		-250,000		-1 448 000		-1 448 000
Program Evaluation Einanging ⁶		-1.412 482		-1.412 482		-2.018 482		-606.000
riogiani Evanation rinancing		-1,712,702		-1,-12,-02		-2,010,402		-000,000
Subtotal, Labor/HHS Budget Authority		\$47,541,518		\$46,863,518		\$47,807,000		\$265,482
Interior Appropriation for Superfund Research		83,035		83,035		83,035		0
Total, NIH Discretionary Budget Authority		\$47,624,553		\$46,946,553		\$47,890,035		\$265,482
Type 1 Diabetes ⁷		141,450		250,000		260,000		118,550
Mandatory Cancer Moonshot		0		0		1,448,000		1,448,000
Total, NIH Budget Authority		\$47,766,003		\$47,196,553		\$49,598,035		\$1,832,032
Program Evaluation Financing		1,412,482		1,412,482		2,018,482		606,000
Total, Program Level		\$49,178,485		\$48,609,035		\$51,616,517		\$2,438,032
Pandemic Preparedness Mandatory via PHSSEF (non-add) ⁸		(0)		(0)		(2,690,000)		(2,690,000)

See footnotes on following page.

¹ Subtotal and Total numbers may not add due to rounding.

- $^{2}\;$ Includes 21st Century Cures Act funding and excludes supplemental financing.
- ³ Numbers in italics and brackets are non-add.
- ⁴ Number of grants and dollars for the Common Fund and ORIP components of OD are distributed by mechanism and are noted here as non-adds. Office of the Director Appropriation is the non-add total of these amounts and the funds accounted for under OD Other.
- ⁵ Includes B&F appropriation and monies allocated pursuant to appropriations acts provisions such that funding may be used for facilities repairs and improvements at the NCI Federally Funded Research and Development Center in Frederick, Maryland.
- ⁶ Number of grants and dollars for mandatory Type 1 Diabetes (T1D), mandatory Cancer Moonshot, and Program Evaluation financing are distributed by mechanism above; therefore, T1D and Program Evaluation financing amounts are deducted to provide subtotals for Labor/HHS Budget Authority.
- ⁷ Amount in FY 2023 reflect a reduction of \$8.550 million for Budget Control Act sequestration. FY2024 reflects annualized CR level of \$150.0 million plus \$100.0 million reauthorization proposal.
- 8 The FY 2025 budget also provides \$20 billion in mandatory funding across HHS for pandemic preparedness, which is reflected in the Public Health and Social Services Emergency Fund chapter. Of this total, NIH will receive \$2,690 million.
- ⁹ Reduced by a transfer of \$5.0 million from OD to the HHS Office of Inspector General.

	FY 2023	FY 2024	FY 2025
(Dollars in Thousands) ¹	F * 16,7	\mathbf{CP}^7	President's
	Final	CR	Budget ⁷
NCI ²	\$7,317,241	\$7,104,159	\$9,287,141
NHLBI	\$3,985,158	\$3,982,345	\$3,997,086
NIDCR	\$520,138	\$520,163	\$521,695
NIDDK ³	\$2,444,548	\$2,550,721	\$2,569,991
NINDS	\$2,809,418	\$2,674,925	\$2,833,827
NIAID	\$6,561,652	\$6,562,279	\$6,581,291
$NIGMS^4$	\$3,239,679	\$3,239,679	\$3,249,375
NICHD	\$1,747,784	\$1,749,078	\$1,766,415
NEI	\$896,136	\$896,549	\$898,818
NIEHS ⁵	\$996,842	\$997,014	\$999,826
NIA	\$4,412,090	\$4,407,623	\$4,425,295
NIAMS	\$687,639	\$685,465	\$689,697
NIDCD	\$534,330	\$534,333	\$535,929
NIMH	\$2,341,653	\$2,198,843	\$2,548,662
NIDA	\$1,663,365	\$1,662,695	\$1,668,343
NIAAA	\$596,616	\$595,318	\$598,903
NINR	\$197,671	\$197,693	\$198,263
NHGRI	\$660,510	\$663,200	\$663,660
NIBIB	\$440,625	\$440,627	\$441,944
NIMHD	\$525,138	\$524,395	\$526,710
NCCIH	\$170,277	\$170,384	\$170,894
NCATS	\$923,323	\$923,323	\$926,086
FIC	\$95,130	\$95,162	\$95,415
NLM	\$495,314	\$497,548	\$526,796
OD	\$3,066,208	\$2,885,514	\$3,044,455
ARPA-H	\$1,500,000	\$1,500,000	\$1,500,000
B&F	\$350,000	\$350,000	\$350,000
Total, NIH Program Level	\$49,178,485	\$48,609,035	\$51,616,517
Special Type 1 Diabetes Research (mandatory)	-\$141,450	-\$250,000	-\$260,000
Mandatory Cancer Moonshot			-\$1,448,000
PHS Program Evaluation	-\$1,412,482	-\$1,412,482	-\$2,018,482
Interior Appropriation (Superfund Research)	-\$83,035	-\$83,035	-\$83,035
Total, NIH Labor/HHS Budget Authority	\$47,541,518	\$46,863,518	\$47,807,000
Pandemic preparedness (mandatory) (non-add)			\$2,690,000

NIH Budget Request by IC

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

²Includes mandatory Cancer Moonshot proposal as shown later in the table

³ Includes Type 1 Diabetes mandatory funding with proposal as shown later in the table.

⁴ Includes Program Evaluation financing as shown later in the table.

⁵ Includes Interior appropriation for Superfund Research activities as shown later in the table.

⁶ Amounts reflect HIV/AIDS transfers across ICs under the authority of the Office of AIDS Research.

⁷ Reflects directive transfer of \$5.0 million from OD to the HHS Office of Inspector General.