

DEPARTMENT OF HEALTH AND HUMAN SERVICES

NATIONAL INSTITUTES OF HEALTH

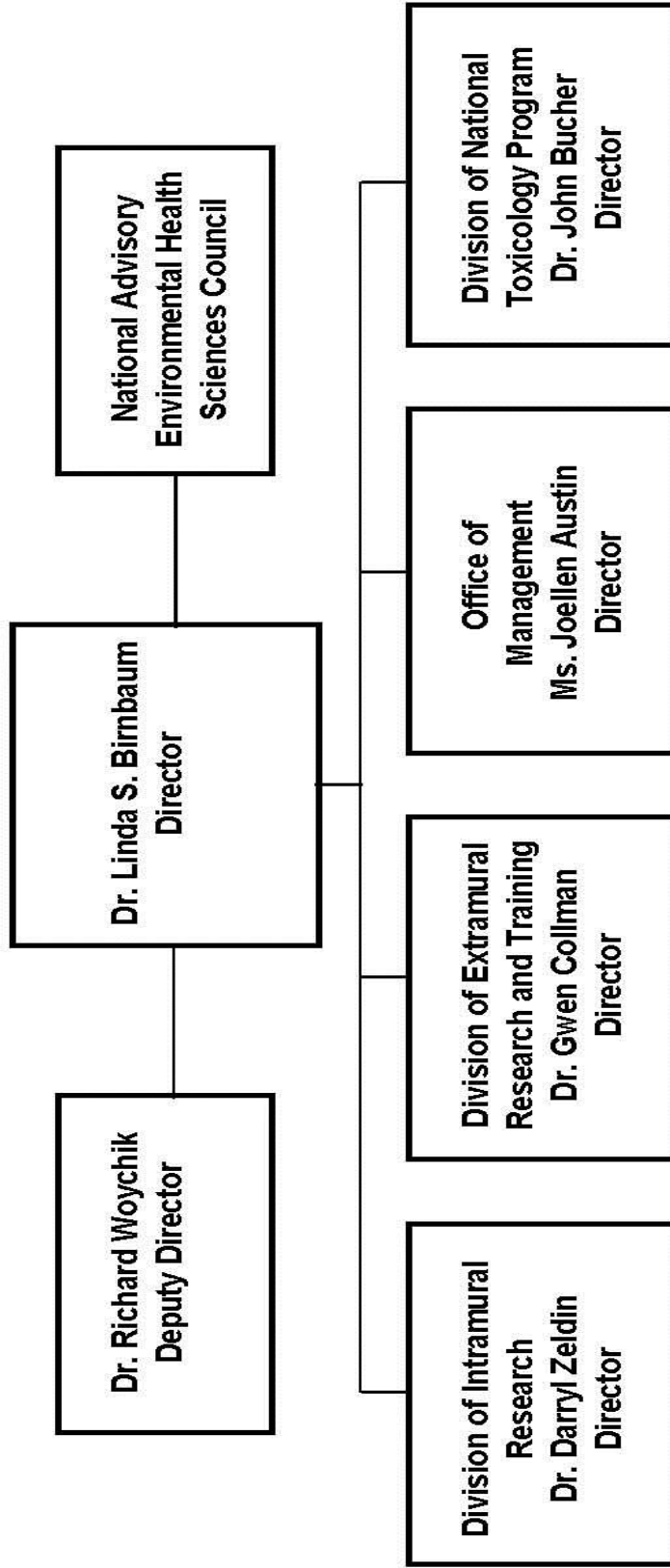
National Institute of Environmental Health Sciences (NIEHS)
Department of Interior and Related Agencies Appropriations
Superfund-Related Activities

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NATIONAL INSTITUTES OF HEALTH

National Institute of Environmental Health Sciences

Organization Structure



NATIONAL INSTITUTES OF HEALTH

National Institute of Environmental Health Sciences
Department of Interior, Environment, and Related Agencies Appropriations
Superfund Related Activities

For necessary expenses **【for】**of 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, **【\$77,349,000】**\$77,349,000.

**NATIONAL INSTITUTES OF HEALTH
Superfund**

Amounts Available for Obligation¹
(Dollars in Thousands)

Source of Funding	FY 2013 Actual	FY 2014 Enacted	FY 2015 President's Budget
Appropriation	\$78,928	\$77,349	\$77,349
Type 1 Diabetes	0	0	0
Rescission	-158	0	0
Sequestration	-3,962	0	0
Subtotal, adjusted appropriation	\$74,808	\$77,349	\$77,349
FY 2013 Secretary's Transfer	0	0	0
OAR HIV/AIDS Transfers	0	0	0
Comparative transfers to NLM for NCBI and Public Access	0	0	0
National Children's Study Transfers	63	0	0
Subtotal, adjusted budget authority	\$74,871	\$77,349	\$77,349
Unobligated balance, start of year	0	0	0
Unobligated balance, end of year	0	0	0
Subtotal, adjusted budget authority	\$74,871	\$77,349	\$77,349
Unobligated balance lapsing	-7	0	0
Total obligations	\$74,864	\$77,349	\$77,349

¹ Excludes the following amounts for reimbursable activities carried out by this account:
FY 2013 - \$9,867 FY 2014 - \$10,210 FY 2015 - \$10,210

**NATIONAL INSTITUTES OF HEALTH
Superfund
Budget Mechanism - Total¹**

(Dollars in Thousands)

MECHANISM	FY 2013 Actual		FY 2014 Enacted		FY 2015 President's Budget		FY 2015 +/- FY 2014	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount
<u>Research Projects:</u>								
Noncompeting	19	\$36,584	13	\$32,667	24	\$35,349	11	\$2,682
Administrative Supplements	(16)	751	(6)	751	(6)	751	(0)	0
<u>Competing:</u>								
Renewal	2	5,973	2	5,870	2	4,274	0	-1,596
New	0	0	11	5,462	2	4,137	-9	-1,325
Supplements	0	0	0	0	0	0	0	0
Subtotal, Competing	2	\$5,973	13	\$11,332	4	\$8,411	-9	-\$2,921
Subtotal, RPGs	21	\$43,308	26	\$44,750	28	\$44,511	2	-\$239
SBIR/STTR	11	2,235	9	1,937	12	2,409	3	472
Research Project Grants	32	\$45,543	35	\$46,687	40	\$46,920	5	\$233
<u>Research Centers:</u>								
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	0	0	0	0	0	0	0	0
Research Centers in Minority Institutions	0	0	0	0	0	0	0	0
Research Centers	0	\$0	0	\$0	0	\$0	0	\$0
<u>Other Research:</u>								
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	27	25,483	27	26,702	23	26,430	-4	-272
Other Research	27	\$25,483	27	\$26,702	23	\$26,430	-4	-\$272
Total Research Grants	59	\$71,026	62	\$73,389	63	\$73,350	1	-\$39
<u>Ruth L Kirchstein Training Awards:</u>	<u>FTTPs</u>		<u>FTTPs</u>		<u>FTTPs</u>		<u>FTTPs</u>	
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 (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	3,845	0	3,960	0	3,999	0	39
Res. Management & Support (SBIR Admin) (non-add)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Construction	0	0	0	0	0	0	0	0
Buildings and Facilities	0	0	0	0	0	0	0	0
Total, Superfund	0	\$74,871	0	\$77,349	0	\$77,349	0	\$0

¹ All items in italics and brackets are non-add entries. FY 2013 and FY 2014 levels are shown on a comparable basis to FY 2015.

Major Changes in the Fiscal Year 2015 Budget Request

Major changes by budget mechanism and/or budget program detail are briefly described below. The FY 2015 Budget request for NIEHS Superfund is \$77.349 million, the same as the FY 2014 Enacted level.

Research Project Grants (RPGs) (+\$0.233 million; total \$46.920 million):

NIEHS plans to support a total of 40 RPG awards in FY 2015. Noncompeting RPGs will increase by 11 awards and \$2.682 million from the FY 2014 Enacted level as a result of 11 R01 awards made in FY 2014 under the ES-13-010 Biogeochemical Interactions Affecting Bioavailability for in situ Remediation of Hazardous Substances Request for Applications (RFA). Competing RPGs will decrease by nine awards and \$2.921 million.

**NATIONAL INSTITUTES OF HEALTH
Superfund**

**Summary of Changes
(Dollars in Thousands)**

FY 2014 Enacted		\$77,349	
FY 2015 President's Budget		\$77,349	
Net change		\$0	
CHANGES	FY 2015 President's Budget		Change from FY 2014
	FTEs	Budget Authority	FTEs Budget Authority
A. Built-in:			
1. Intramural Research:			
a. Annualization of January 2014 pay increase & benefits		\$0	\$0
b. January FY 2015 pay increase & benefits		0	0
c. Zero more days of pay (n/a for 2015)		0	0
d. Differences attributable to change in FTE		0	0
e. Payment for centrally furnished services		0	0
f. Increased cost of laboratory supplies, materials, other expenses, and non-recurring costs		0	0
Subtotal			\$0
2. Research Management and Support:			
a. Annualization of January 2014 pay increase & benefits		\$1,581	\$4
b. January FY 2015 pay increase & benefits		1,581	12
c. Zero more days of pay (n/a for 2015)		1,581	0
d. Differences attributable to change in FTE		1,581	0
e. Payment for centrally furnished services		25	0
f. Increased cost of laboratory supplies, materials, other expenses, and non-recurring costs		2,392	41
Subtotal			\$57
Subtotal, Built-in			\$57

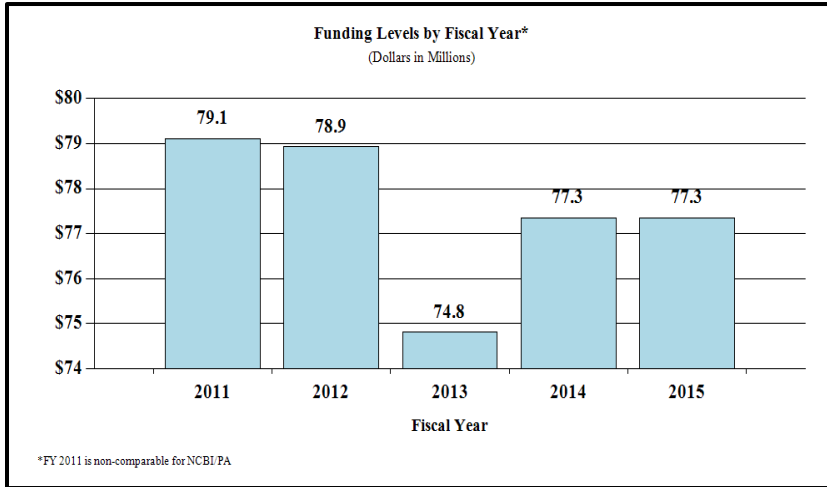
**NATIONAL INSTITUTES OF HEALTH
Superfund**

Summary of Changes - Continued
(Dollars in Thousands)

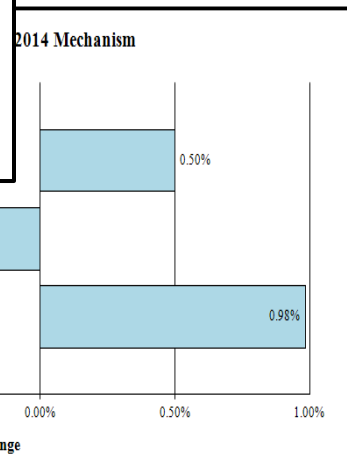
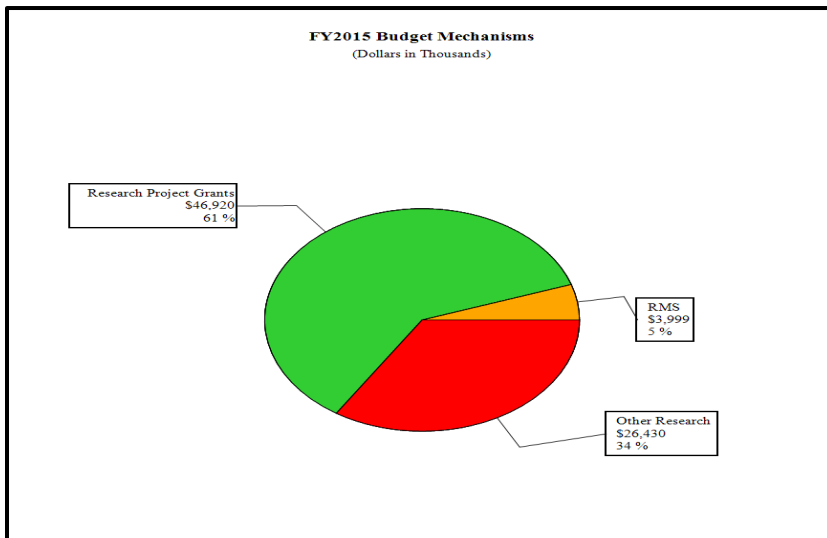
CHANGES	FY 2015 President's Budget		Change from FY 2014	
	No.	Amount	No.	Amount
B. Program:				
1. Research Project Grants:				
a. Noncompeting	24	\$36,100	11	\$2,682
b. Competing	4	8,411	-9	-2,921
c. SBIR/STTR	12	2,409	3	472
Subtotal, RPGs	40	\$46,920	5	\$233
2. Research Centers	0	\$0	0	\$0
3. Other Research	23	26,430	-4	-272
4. Research Training	0	0	0	0
5. Research and development contracts	0	0	0	0
Subtotal, Extramural		\$73,350		-\$39
6. Intramural Research	<u>FTEs</u> 0	\$0	<u>FTEs</u> 0	\$0
7. Research Management and Support	0	3,999	0	-18
8. Construction		0		0
9. Buildings and Facilities		0		0
Subtotal, Program	0	\$77,349	0	-\$57
Total changes				\$0

Fiscal Year 2015 Budget Graphs

History of Budget Authority:



Distribution by Mechanism:



Change by Selected Mechanism:

**NATIONAL INSTITUTES OF HEALTH
Superfund**

Budget Authority by Activity¹
(Dollars in Thousands)

	FY 2013 Actual	FY 2014 Enacted	FY 2015 President's Budget	FY 2015 +/- FY 2014
<u>Detail:</u>	<u>Amount</u>	<u>Amount</u>	<u>Amount</u>	<u>Amount</u>
Superfund Research	\$47,616	\$49,168	\$49,168	\$0
Worker Training Program	27,255	28,181	28,181	0
TOTAL	\$74,871	\$79,349	\$77,349	\$0

¹ Includes Transfers and Comparable Adjustments as detailed in the "Amounts Available for Obligation" table.

NATIONAL INSTITUTES OF HEALTH
National Institute of Environmental Health Sciences Superfund

Authorizing Legislation

	PHS Act/ Other Citation	U.S. Code Citation	2014 Amount Authorized	FY 2014 Enacted	2015 Amount Authorized	FY 2015 PB
Environmental Protection Agency's Hazardous Substance Superfund	CERCLA Section 311(a)	42§9660 Section 9660(a)	Indefinite	\$77,349,000	Indefinite	\$77,349,000
	SARA Section 126(a)	42§9660 Section 9660(a)				
Total Budget Authority						\$77,349,000

**NATIONAL INSTITUTES OF HEALTH
Superfund**

Appropriations History

Fiscal Year	Budget Estimate to Congress	House Allowance	Senate Allowance	Appropriation
2005 Rescission	\$80,486,000	\$80,486,000	\$80,486,000	\$80,486,000 (\$644,000)
2006 Rescission	\$80,289,000	\$80,289,000	\$80,289,000	\$80,289,000 (\$1,181,000)
2007 Rescission	\$79,108,000	\$79,414,000	\$78,414,000	\$79,117,000 \$0
2008 Rescission	\$78,434,000	\$79,117,000	\$78,434,000	\$78,775,000 (\$1,229,000)
2009 Rescission	\$77,546,000	\$78,074,000	\$77,546,000	\$78,074,000 \$0
2010 Rescission	\$79,212,000	\$79,212,000	\$79,212,000	\$79,212,000 \$0
2011 Rescission	\$81,763,000			\$79,212,000 (\$158,000)
2012 Rescission	\$81,085,000			\$79,054,000 (\$126,000)
2013 Rescission Sequestration	\$78,928,000		\$78,928,000	\$78,927,514 (\$157,855) (\$3,961,618)
2014 Rescission	\$79,411,000			\$77,349,000 \$0
2015	\$77,349,000			

Justification of Budget Request

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 2013 Actual	FY 2014 Enacted	FY 2015 President's Budget	FY 2015+ / - FY 2014
\$74,871,478	\$77,349,000	\$77,349,000	0

FTEs are included with the regular NIEHS appropriation.

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

Director's Overview

In 1986, through the Superfund Amendments and Reauthorization Act, Congress established two Superfund Programs at the National Institute of Environmental Health Sciences (NIEHS). The NIEHS Programs respond to a crucial need to address challenges posed by environmental contamination such as health risks, prevention and intervention strategies, emergency response efforts, and cost-effective remediation related to hazardous waste found throughout the United States. The NIEHS Superfund Research Program (SRP) fosters multidisciplinary research, fundamental creative discoveries, and innovative research strategies focused on solving problems related to Superfund sites. The NIEHS Superfund Worker Training Program (WTP) provides health and safety training to hazardous waste cleanup workers and emergency responders.

The NIEHS SRP seeks innovative strategies and technologies to provide solutions to the magnitude and complexity of the nation's hazardous waste site assessment and remediation as well as better ways to respond to national disasters. The major objective of the NIEHS WTP is to train workers in how best to protect themselves and their communities from exposure to hazardous materials encountered during hazardous waste operations, hazardous materials transportation, environmental restoration of contaminated facilities, and emergency response. 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.

The NIEHS SRP work informs environmental risk assessment, develops technologies that measure or improve remediation of hazardous chemicals, and provides outreach and translation activities to engage communities and other stakeholders. From basic biomedical researchers to field engineers, it also pushes the bounds of technology by creating innovative tools to assist in

cleanup of harmful waste in faster, cheaper, and more effective ways. The NIEHS SRP funds a wide range of grants across such areas as health effects, risk assessment methodology, detection technologies, and remediation. Program highlights below demonstrate that this research and its application lead to transformational discoveries that improve health, safeguard the environment, and promote economic growth.

NIEHS SRP grantees have been studying AhR, a key receptor involved in regulating normal homeostasis which also interacts with some environmental chemicals. The researchers have found that AhR is involved in both early and late events during breast cancer development. This suggests the exciting possibility that targeting this receptor might be an effective treatment for all forms of breast cancers. Patents for these novel AhR-targeted therapeutics have been filed and they have been licensed to a drug development company.

NIEHS SRP grantees joined an interdisciplinary effort to test the Eco-Machine, the only bioremediation unit in the country that uses fungi, plants, and bacteria to reduce oil and other contaminants in water. Initial results show that the Eco-Machine reduced petroleum hydrocarbons in Rhode Island's Blackstone River by as much as 90 percent.

The other component of the NIEHS Superfund Programs, the NIEHS WTP, utilizes knowledge gained from NIEHS SRP research to update and tailor safety and health training so that it addresses the actual hazards faced by workers today for both Superfund site cleanup and emergency response. Their training activities save lives, prevent injuries, and reduce costs.

Every day NIEHS SRP researchers seek solutions to complex environmental hazards, while NIEHS WTP-trained workers safely address those hazards. NIEHS SRP science, including improved remediation techniques, has benefited many people, communities, and industries. Similarly, NIEHS WTP has provided training throughout the country that has increased the safety of our workers and has provided a core of skilled responders during times of national crisis – from the World Trade Center to Katrina, from the recent flooding in New York to the Gulf Oil spill. These two programs complement each other, in creating a healthier nation, providing economic benefits, and better preparing us to assist our partners in facing and solving a wide array of environmental health and cleanup issues.

Overall Budget Policy:

The FY 2015 President's Budget request for NIEHS Superfund is \$77.349 million, the same as the FY 2014 Enacted level.

Program Descriptions and Accomplishments

NIEHS Superfund Research Program (SRP): NIEHS SRP researchers identify critical public health issues and work to develop solutions, improving our health and the environment while promoting economic development. The NIEHS SRP is a network of university research projects designed to problem solve complex health and environmental issues associated with the nation's hazardous waste sites. It bridges biomedical and engineering fields to tackle environmental,

public health, and scientific challenges. Its robust interdisciplinary training program provides valuable graduate and advanced training opportunities in a wide variety of subjects such as biomedical and environmental health, cleanup technologies, engineering, ecology, and geosciences.

NIEHS SRP research mitigates exposures through innovative cleanup strategies; develops new biomarkers of exposure for public health interventions; identifies clues of early onset of disease due to exposure to environmental hazards; and improves our ability to predict whether a person might come in contact with a contaminant. Presently, NIEHS SRP grantees work at 217 hazardous waste sites, have developed over 98 patented inventions, have contributed over 8,100 publications to peer reviewed journals, and support 1,400 professionals and more than 680 trainees involved in research. NIEHS SRP researchers are currently studying over 20 hazardous substances to understand more than 20 disease endpoints.

In one of the first human epidemiologic studies designed to address exposure to multiple chemicals, NIEHS SRP-supported research at Harvard demonstrated that lead toxicity was greatest when it occurred in the context of high exposure to manganese. These researchers also have demonstrated that urine cadmium predicts potential learning disabilities and the need for special education.

Another Superfund team, in collaboration with industry, led to the development of a biologically based method to degrade a suspected carcinogen, methyl tertiary butyl ether (MTBE). MTBE is a contaminant that can leak into groundwater from underground gas tanks at abandoned gas stations. The method resulted in a 10-fold decrease of MTBE in just two months, and eventually brought treated aquifers into compliance.

Other NIEHS SRP-funded researchers are testing new approaches for treating emerging contaminants that are difficult to remove with existing technologies, such as perfluorooctanoic acid (PFOA). PFOA does not occur naturally in the environment and has been detected in industrial waste, stain resistant carpets, house dust, water, food, and some cookware. PFOA has been associated with altered immune function, adverse developmental effects, and increased risk of chronic kidney disease and liver cancer.

Superfund grantees have received international acceptance of an ovarian cell bioassay for endocrine disrupting chemicals. This recombinant cell bioassay can detect estrogenic/antiestrogenic endocrine disruptors, which may interfere with the endocrine (or hormone system) and cause cancerous tumors, birth defects, and other developmental disorders. In addition to its international use, the assay has been adopted by the U.S. EPA as part of their screening program for estrogenic chemicals.

NIEHS SRP awardees are developing new technologies to make immunoassays faster, cheaper, and more sensitive. These new technologies involve collaboration with researchers and engineers using the latest technologies such as nanoparticles. For example, NIEHS SRP grantees are studying triclosan, a high-production-volume chemical used as a bactericide in personal care products and a pollutant of growing concern to human and environmental health. In response to

this concern this group developed an immunoassay for triclosan that permits rapid detection so that exposures can be reduced.

To address emerging technologies, the NIEHS SRP announced a new initiative: Occupational and Safety Training Education Programs on Emerging Technologies. The intent of the program is to train the next generation of health and safety professionals in the areas of advanced and emerging technologies, persistent and bioaccumulative chemicals, alternative (green) chemistry, and other hazardous substances that pose a risk to human health.

Budget Policy:

The FY 2015 President’s Budget estimate for SRP is \$49.168 million, the same as the FY 2014 Enacted level.

Program Portrait: Protecting Public Health

FY 2014 Level: \$1.5 million

FY 2015 Level: \$1.5 million

Change: \$0.0 million

NIEHS SRP research has resulted in improved techniques for the remediation of contaminated sites, greater knowledge concerning the fate and transport of hazardous materials in the environment, and interventions that have improved health. One theme that crosses each of these research arenas is the concept of “bioavailability,” or the portion of a contaminant that is capable of getting into living systems. Because contaminants in the environment can become tightly bound to particles in soil, sediments, and bedrock, there is a great incentive to prioritize cleanup efforts for the bioavailable portion. In many cases, it is more protective of human health to leave the non-bioavailable portion in place.

The results of NIEHS SRP research have shown improvement in risk assessment and detection as well as changes in policy that affect public health. NIEHS SRP awardees working with a state government to investigate discrepancies in the lead concentrations in soils near water towers (painted with lead-based paint that were not maintained and flaked off) found that if remediation efforts only assess and remove surface contamination then the higher concentrations residing 6 – 12 inches below surface are missed and create the potential for ongoing and significant hazardous environmental exposures.

An NIEHS SRP-funded group, Coastal Marine Mercury Ecosystem Research Collaborative (C-MERC) brought together a group of 50 scientists and stakeholders who worked together to provide information on the fate of mercury from its environmental sources to seafood consumers. Mercury, particularly its organic form (MeHg), is a global contaminant and toxicant of major concern for humans and wildlife. C-MERC stakeholders identified major environmental and health policy issues associated with MeHg, and provided scientists and decision makers with an understanding of the links between environmental processes that affect MeHg levels in aquatic ecosystems and human MeHg exposure and health risks. These links are critical to predicting how local and global changes in environmental mercury levels will ultimately influence MeHg contamination of seafood and human exposure risk.

NIEHS SPR researchers have developed devices that enhance risk assessment and detection of harmful environmental exposures. In one study, researchers have created a tool that allows for improved efficiency and accuracy of bioavailability measurements used to evaluate the effectiveness of remediation operations and predict changes in human exposure. Building on this theme, the NIEHS SRP has announced a new initiative, Biogeochemical Interactions Affecting Bioavailability for in situ Remediation of Hazardous Substances. This initiative will expand upon important bioavailability research and assessing human exposure to hazardous substances.

NIEHS Worker Training Program (WTP): The primary objective of the NIEHS WTP is to fund non-profit organizations with a demonstrated track record of providing occupational safety and health education in developing and delivering high quality training to workers who are involved in handling hazardous waste or in responding to emergency releases of hazardous materials. Since 1987, NIEHS WTP has developed a strong network of non-profit organizations that are committed to protecting workers and their communities by delivering high-quality, peer-reviewed safety and health curriculums to target populations of hazardous waste workers and emergency responders. Last year alone, NIEHS WTP awardees conducted over 8,600 courses for over 142,000 workers and since the inception of NIEHS WTP, over 2,500,000 workers have been trained.

Recently, NIEHS WTP-trained workers in Kentucky were called upon due to a chemical leak caused by an overturned tractor trailer that led to a complete shutdown on a major road, threatening nearby schools and neighborhoods. These NIEHS WTP-trained workers handled the cleanup and the situation was safely resolved for both the responders and the community.

The NIEHS WTP not only saves lives but builds livelihoods. Take the case of Steven B., a graduate of the NIEHS WTP Minority Worker Training Program in Saint Paul, Minnesota. After graduation from the NIEHS WTP program, Steven went to the State of Minnesota and established his own construction business. A short time ago, Steven was awarded several contracts in the environmental remediation industry and has been able to hire other graduates. Steven has said that he owes the NIEHS WTP a great deal of thanks for allowing him this opportunity. In his words, “Without their guidance and mentoring, I would probably still be another unemployed person. Now, I am a business owner, equipped with the tools, skills and certifications to be successful with a bright future. Now I have options.”

NIEHS WTP is an asset that employers utilize when creating jobs, both through direct, targeted training and, as indicated above, through reference to our programs. NIEHS WTP awardees are flexible. Their training is not off-the-shelf, one size fits all. Rather it is modified, indeed tailored, to the needs of the customer – for instance, the cleanup contractor whose site is a complicated mixture of chemical and physical hazards and who needs to expand his workforce and have them trained.

NIEHS WTP-trained workers also assist in hazardous waste remediation. After remediation, the land is revitalized and is available for redevelopment and reuse, which increases local tax bases, facilitates job growth, utilizes existing infrastructure, and both improves and protects the environment. Overall, hazardous waste remediation is an economic and environmental achievement.

NIEHS WTP-funded trainers also assist residents, volunteers, and businesses during natural disasters by providing the latest information on best practices for the protection of volunteers, homeowners, and cleanup workers. NIEHS has developed a Mold Remediation Guidance Document, a PowerPoint presentation, and pocket guide booklets in various languages to provide key health and safety information for workers and volunteers in mucking, gutting, remediating, and rebuilding damaged housing. The educational materials address identification and control of environmental hazards that include mold, asbestos, carbon monoxide, raw sewage, and safety

hazards. These NIEHS WTP materials and web-assets were utilized during the recent Colorado flood recovery efforts.

NIEHS WTP, with its links to the chemical industry, is also preparing for new cybersecurity threats to our chemical manufacturing facilities. The United Steelworkers Union, for example, is developing preparedness training for workers in these high-hazard facilities and for telecommunications workers who are called upon to restore communications during and immediately after such disasters. In addition, WTP staff work in conjunction with the National Response Team under the National Contingency Plan and coordinate activities through the Worker Safety and Health Committee under the National Response and Recovery Frameworks. Disaster response and hazardous waste training provided by NIEHS WTP grants have been used in many instances of emergency need across the U.S., including responses to Hurricanes Katrina and Rita, Midwest and New England floods, western wildfires, the Gulf oil spill, and the 2001 World Trade Center attack.

Program Portrait: Global Harmonized System

FY 2014 Level: \$0.2 million

FY 2015 Level: \$0.2 million

Change: \$0.0 million

If a picture is worth a thousand words, then for American businesses that regularly handle, store, and use hazardous chemicals, particularly those with international operations and trade, the past mixture of warning labels, plaques, and pictograms was a language with which no one was comfortable. Today, with participation from American business, the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard is now aligned with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). This update provides a common and coherent approach to classifying chemicals and communicating hazard information on labels and safety data sheets; it improves the quality and consistency of hazard information in the workplace, making it safer for workers. In addition, this update will help reduce trade barriers and result in productivity improvements for American businesses. Yet for this standard to be effective, worker training is required.

As of December 1, 2013, employers covered by OSHA are required to have trained all employees on the new label elements, pictograms, and safety data sheet. For over a year, NIEHS WTP awardees have met this challenge: developing curricula and training materials, including on-line courses; conducting classes; and working with their customers and partners to successfully meet this challenge. Thus, GHS updates and materials were provided within a range of courses and reached over 34,000 workers in this year alone. The NIEHS WTP is a model that steps up to a challenge. GHS-specific training will continue to be an important part of training during the next several years.

Budget Policy:

The FY 2015 President's Budget estimate for WTP is \$28.181 million, the same as the FY 2014 Enacted level. In keeping with its five year competitive award cycle, NIEHS WTP will be releasing a new Funding Opportunity Announcement (FOA) during 2014 and expects to make approximately 20 awards in July 2015.

**NATIONAL INSTITUTES OF HEALTH
Superfund**

Budget Authority by Object Class¹
(Dollars in Thousands)

	FY 2014 Enacted	FY 2015 President's Budget	FY 2015 +/- FY 2014
Total compensable workyears:			
Full-time employment	0	0	0
Full-time equivalent of overtime and holiday hours	0	0	0
Average ES salary	\$0	\$0	\$0
Average GM/GS grade	0.0	0.0	0.0
Average GM/GS salary	\$0	\$0	\$0
Average salary, grade established by act of July 1, 1944 (42 U.S.C. 207)	\$0	\$0	\$0
Average salary of ungraded positions	\$0	\$0	\$0
OBJECT CLASSES	FY 2014	FY 2015	FY 2015
Personnel Compensation			
11.1 Full-Time Permanent	\$966	\$975	\$9
11.3 Other Than Full-Time Permanent	230	233	3
11.5 Other Personnel Compensation	12	12	0
11.7 Military Personnel	0	0	0
11.8 Special Personnel Services Payments	0	0	0
11.9 Subtotal Personnel Compensation	\$1,208	\$1,220	\$12
12.1 Civilian Personnel Benefits	\$349	\$361	\$12
12.2 Military Personnel Benefits	0	0	0
13.0 Benefits to Former Personnel	0	0	0
Subtotal Pay Costs	\$1,557	\$1,581	\$24
21.0 Travel & Transportation of Persons	\$139	\$140	\$1
22.0 Transportation of Things	0	0	0
23.1 Rental Payments to GSA	0	0	0
23.2 Rental Payments to Others	0	0	0
23.3 Communications, Utilities & Misc. Charges	0	0	0
24.0 Printing & Reproduction	0	0	0
25.1 Consulting Services	\$31	\$32	\$1
25.2 Other Services	200	204	4
25.3 Purchase of goods and services from government accounts	2,026	2,035	9
25.4 Operation & Maintenance of Facilities	\$0	\$0	\$0
25.5 R&D Contracts	0	0	0
25.6 Medical Care	0	0	0
25.7 Operation & Maintenance of Equipment	0	0	0
25.8 Subsistence & Support of Persons	0	0	0
25.0 Subtotal Other Contractual Services	\$2,257	\$2,271	\$14
26.0 Supplies & Materials	\$2	\$2	\$0
31.0 Equipment	4	4	0
32.0 Land and Structures	0	0	0
33.0 Investments & Loans	0	0	0
41.0 Grants, Subsidies & Contributions	73,389	73,350	-39
42.0 Insurance Claims & Indemnities	0	0	0
43.0 Interest & Dividends	0	0	0
44.0 Refunds	0	0	0
Subtotal Non-Pay Costs	\$75,792	\$75,768	-\$24
Total Budget Authority by Object Class	\$77,349	\$77,349	\$0

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

**NATIONAL INSTITUTES OF HEALTH
Superfund**

**Salaries and Expenses
(Dollars in Thousands)**

OBJECT CLASSES	FY 2014 Enacted	FY 2015 President's Budget	FY 2015 +/- FY 2014
Personnel Compensation			
Full-Time Permanent (11.1)	\$966	\$975	\$9
Other Than Full-Time Permanent (11.3)	230	233	3
Other Personnel Compensation (11.5)	12	12	0
Military Personnel (11.7)	0	0	0
Special Personnel Services Payments (11.8)	0	0	0
Subtotal Personnel Compensation (11.9)	\$1,208	\$1,220	\$12
Civilian Personnel Benefits (12.1)	\$349	\$361	\$12
Military Personnel Benefits (12.2)	0	0	0
Benefits to Former Personnel (13.0)	0	0	0
Subtotal Pay Costs	\$1,557	\$1,581	\$24
Travel & Transportation of Persons (21.0)	\$139	\$140	\$1
Transportation of Things (22.0)	0	0	0
Rental Payments to Others (23.2)	0	0	0
Communications, Utilities & Misc. Charges (23.3)	0	0	0
Printing & Reproduction (24.0)	0	0	0
Other Contractual Services:			
Consultant Services (25.1)	31	32	1
Other Services (25.2)	200	204	4
Purchases from government accounts (25.3)	2,026	2,035	9
Operation & Maintenance of Facilities (25.4)	0	0	0
Operation & Maintenance of Equipment (25.7)	0	0	0
Subsistence & Support of Persons (25.8)	0	0	0
Subtotal Other Contractual Services	\$2,257	\$2,271	\$14
Supplies & Materials (26.0)	\$2	\$2	\$0
Subtotal Non-Pay Costs	\$2,399	\$2,413	\$15
Total Administrative Costs	\$3,956	\$3,995	\$39

NATIONAL INSTITUTES OF HEALTH
FY 2015 Congressional Justification
Budget Request by Institute/Center
(Dollars in Thousands)

Institute/Center	FY 2013 Actual ^{1, 2}	FY 2014 Enacted ²	FY 2015 President's Budget
NCI.....	\$4,783,442	\$4,922,771	\$4,930,715
NHLBI.....	2,900,321	2,982,737	2,987,685
NIDCR.....	386,874	397,102	397,131
NIDDK ³	1,692,748	1,741,874	1,743,336
NINDS.....	1,531,975	1,585,797	1,608,461
NIAID.....	4,230,080	4,392,670	4,423,357
NIGMS.....	2,290,525	2,361,894	2,368,877
NICHHD.....	1,244,707	1,280,830	1,283,487
NEL.....	656,291	674,249	675,168
NIEHS ⁴	645,782	664,524	665,080
NIA.....	1,039,399	1,169,427	1,170,880
NIAMS.....	504,691	519,338	520,189
NIDCD.....	392,113	403,493	403,933
NIMH.....	1,394,354	1,416,825	1,440,076
NIDA.....	992,232	1,015,754	1,023,268
NIAAA.....	432,849	445,411	446,017
NINR.....	136,367	140,324	140,452
NHGRI.....	483,107	497,128	498,451
NIBIB.....	318,720	326,359	328,532
NIMHD.....	260,396	267,953	267,953
NCCAM.....	120,624	124,125	124,509
NCATS.....	541,973	632,396	657,471
FIC.....	65,581	67,484	67,776
NLM.....	352,268	367,223	372,851
OD.....	1,410,515	1,399,753	1,451,786
B&F.....	118,109	128,663	128,663
Subtotal, Labor/HHS Discretionary Budget Authority	\$28,926,041	\$29,926,104	\$30,126,104
Superfund (Interior).....	74,871	77,349	77,349
Total, Discretionary Budget Authority.....	\$29,000,912	\$30,003,453	\$30,203,453
Type 1 Diabetes.....	142,350	139,200	150,000
Total, Budget Authority.....	\$29,143,262	\$30,142,653	\$30,353,453
NLM Program Evaluation.....	8,200	8,200	8,200
Total, Program Level.....	\$29,151,462	\$30,150,853	\$30,361,653

¹ Includes effect of sequestration and transfers.

² FY 2013 and FY 2014 figures are shown on a comparable basis to FY 2015, reflecting the NCBI and PA proposal.

³ Excludes amount for Type 1 Diabetes.

⁴ Excludes amount allocated for Superfund Research activities from Interior, Environment, and Related Agencies appropriation.

**NATIONAL INSTITUTES OF HEALTH
FY 2015 Congressional Justification
Budget Mechanism - Total**

(Dollars in Thousands)

MECHANISM	FY 2013 Actual ²		FY 2014 Enacted ^{2,3}		FY 2015 President's Budget		FY 2015 +/- FY 2014	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount
Research Projects:								
Noncompeting	25,140	\$11,119,346	23,632	\$10,959,764	23,236	\$11,198,737	-396	\$238,973
Administrative Supplements	(1,315)	248,370	(1,215)	154,272	(1,204)	149,179	(-11)	-5,093
Competing:								
Renewal	1,766	904,567	2,006	1,280,732	1,960	956,371	-46	-324,361
New	6,419	2,525,738	6,950	2,977,247	7,322	3,167,151	372	189,904
Supplements	49	8,926	41	8,231	44	8,788	3	557
Subtotal, Competing	8,234	\$3,439,230	8,997	\$4,266,210	9,326	\$4,132,310	329	-\$133,900
Subtotal, RPGs	33,374	\$14,806,946	32,629	\$15,380,246	32,562	\$15,480,226	-67	\$99,980
SBIR/STTR	1,466	638,517	1,584	697,086	1,635	716,621	51	19,535
Research Project Grants	34,840	\$15,445,463	34,213	\$16,077,332	34,197	\$16,196,847	-16	\$119,515
Research Centers:								
Specialized/Comprehensive	1,177	\$1,994,721	1,128	\$1,960,307	1,149	\$1,962,737	21	\$2,430
Clinical Research	58	370,187	58	407,107	58	402,021	0	-5,086
Biotechnology	89	156,159	88	157,710	90	170,682	2	12,972
Comparative Medicine	52	132,623	52	132,864	52	132,327	0	-537
Research Centers in Minority Institutions	21	55,055	21	55,067	21	55,067	0	0
Research Centers	1,397	\$2,708,745	1,347	\$2,713,055	1,370	\$2,722,834	23	\$9,779
Other Research:								
Research Careers	3,677	\$614,651	3,715	\$625,157	3,710	\$626,778	-5	\$1,621
Cancer Education	96	34,466	96	35,500	96	36,561	0	1,061
Cooperative Clinical Research	431	434,870	492	456,827	492	463,979	0	7,152
Biomedical Research Support	122	69,214	88	64,588	88	64,432	0	-156
Minority Biomedical Research Support	310	104,656	313	104,927	316	105,146	3	219
Other	1,748	525,628	1,778	537,799	1,804	571,083	26	33,284
Other Research	6,384	\$1,783,484	6,482	\$1,824,798	6,506	\$1,867,979	24	\$43,181
Total Research Grants	42,621	\$19,937,692	42,042	\$20,615,185	42,073	\$20,787,660	31	\$172,475
Ruth L. Kirchstein Training Awards:								
Individual Awards	3,071	\$132,034	3,126	\$138,879	3,195	\$141,865	69	\$2,986
Institutional Awards	12,468	601,489	12,481	613,998	12,520	625,267	39	11,269
Total Research Training	15,539	\$733,524	15,607	\$752,877	15,715	\$767,132	108	\$14,255
Research & Develop. Contracts	2,339	\$2,895,302	2,210	\$2,990,346	2,186	\$3,030,746	-24	\$40,400
(SBIR/STTR) (non-add) ¹	(120)	(59,137)	(127)	(64,982)	(127)	(70,995)	(0)	(6,013)
Intramural Research	7,126	\$3,282,734	7,137	\$3,395,910	7,137	\$3,435,324	0	\$39,414
Res. Management & Support	5,580	1,485,463	5,697	1,528,653	5,697	1,544,027	0	15,374
Res. Management & Support (SBIR Admin) (non-add) ¹	(2)	(3,185)	(10)	(6,084)	(10)	(5,934)	0	(-150)
Office of the Director								
OD - Other		607,663		572,519		574,552		2,033
OD Common Fund (non-add) ^{1,4}		(513,476)		(533,039)		(583,039)		(50,000)
ORIP/SEPA (non-add) ^{1,4}		(289,376)		(294,195)		(294,195)		(0)
OD Appropriation (non-add) ^{1,4}		(1,410,515)		(1,399,753)		(1,451,786)		(52,033)
Buildings and Facilities ⁵		126,013		136,341		136,663		322
Appropriation ¹		(118,109)		(128,663)		(128,663)		0
Type 1 Diabetes ⁶		-142,350		-139,200		-150,000		-10,800
Subtotal, Labor/HHS Budget Authority		\$28,926,041		\$29,926,104		\$30,126,104		\$200,000
Interior Appropriation for Superfund Res.		74,871		77,349		77,349		0
Total, NIH Discretionary B.A.		\$29,000,912		\$30,003,453		\$30,203,453		\$200,000
Type 1 Diabetes		142,350		139,200		150,000		10,800
Total, NIH Budget Authority		\$29,143,262		\$30,142,653		\$30,353,453		\$210,800
NLM Program Evaluation		8,200		8,200		8,200		0
Total, Program Level		\$29,151,462		\$30,150,853		\$30,361,653		\$210,800

¹ All items in italics and brackets are non-add.

² FY 2013 and FY 2014 figures are shown on a comparable basis to FY 2015, reflecting the NCBI and PA proposal.

³ The amounts in the FY 2014 column take into account funding reallocations, and therefore may not add to the total budget authority reflected herein.

⁴ Number of grants and dollar amounts for the Common Fund, ORIP and SEPA components of OD are distributed by mechanism and are noted here as a non-add. The Office of the Director - Appropriations also is noted as a non-add since these funds are accounted for under OD-Other.

⁵ Includes B&F appropriation plus building repair and improvement (R&I) dollars appropriated to NCI for the Frederick MD facility.

⁶ Number of grants and dollars for mandatory Type 1 Diabetes are distributed by mechanism above; therefore, Type 1 Diabetes amount is deducted to provide subtotals only for the Labor/ HHS Budget Authority.

National Institutes of Health

Detail of Full-Time Equivalent Employment (FTE)

Institutes and Centers (ICs)	FY 2013 Actual	FY 2014 Enacted	FY 2015 PB
NCI	3,103	3,103	3,103
NHLBI	942	942	942
NIDCR	253	253	253
NIDDK	630	630	630
NINDS	525	525	525
NIAID	1,977	1,977	1,977
NIGMS	183	183	183
NICHD	603	603	603
NEI	267	267	267
NIEHS	672	672	672
NIA	395	395	395
NIAMS	246	246	246
NIDCD	140	140	140
NIMH	575	575	575
NIDA	394	394	394
NIAAA	243	243	243
NINR	93	93	93
NHGRI	333	333	333
NIBIB	106	106	106
NIMHD	63	63	63
NCCAM	74	74	74
NCATS	127	127	127
FIC	62	62	62
NLM	799	799	799
OD	649	664	664
Central Services ¹	4,776	4,761	4,761
Subtotal	18,230	18,230	18,230
PHS Trust Fund ²	4	4	4
CRADA (non-add) ³	11	11	11
Grand Total	18,234	18,234	18,234

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

² PHS Trust Fund positions are identified separately in Direct-funded civilian FTE category.

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