DEPARTMENT OF HEALTH AND HUMAN SERVICES

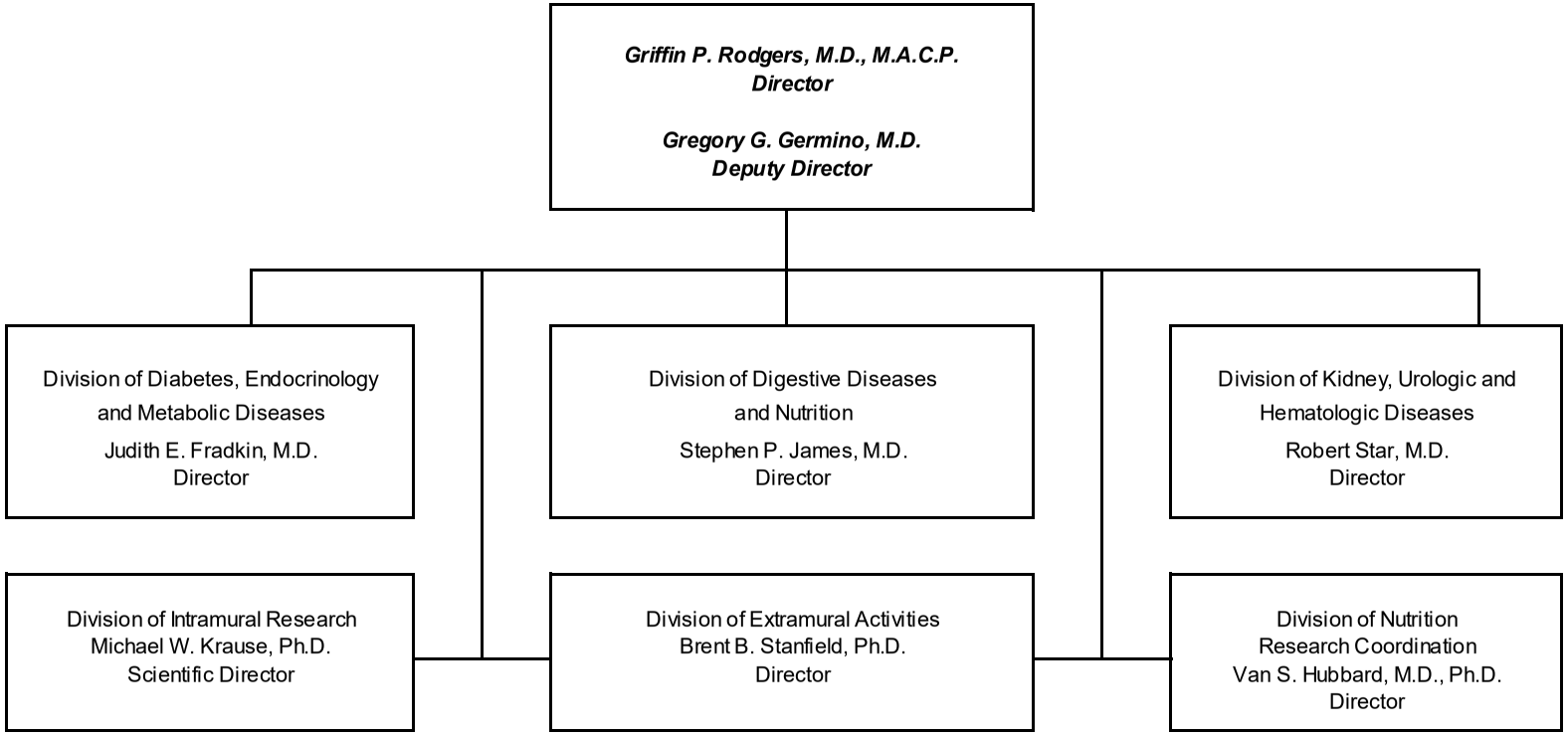
NATIONAL INSTITUTES OF HEALTH

National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)

NATIONAL INSTITUTES OF HEALTH

National Institute of Diabetes and Digestive and Kidney Diseases

Organization Structure



NATIONAL INSTITUTES OF HEALTH

National Institute of Diabetes and Digestive and Kidney Diseases

For carrying out section 301 and title IV of the PHS Act with respect to diabetes and digestive and kidney disease, **[**$1,749,681,000**]** *$1,788,133,000*.

NATIONAL INSTITUTES OF HEALTH
National Institute of Diabetes and Digestive and Kidney Diseases

Amounts Available for Obligation[1]

(Dollars in Thousands)

Source of Funding	FY 2014 Actual	FY 2015 Enacted	FY 2016 President's Budget
Appropriation	$1,744,274	$1,749,681	$1,788,133
FY 2014 First Secretary's Transfer	-4,379	0	0
FY 2014 Second Secretary's Transfer	-342	0	0
Mandatory Appropriation: (non-add) [2]			
Type 1 Diabetes (non-add)	*(150,000)*	*(150,000)*	*(150,000)*
Sequestration (non-add)	*-(10,800)*	*(0)*	*(0)*
Subtotal, adjusted appropriation	$1,739,553	$1,749,681	$1,788,133
OAR HIV/AIDS Transfers	0	-541	0
National Children's Study Transfers	5,733	0	0
Subtotal, adjusted budget authority	$1,745,286	$1,749,140	$1,788,133
Unobligated balance lapsing	-109	0	0
Total obligations	$1,745,177	$1,749,140	$1,788,133

[1] Excludes the following amounts for reimbursable activities carried out by this account:
FY 2014 - $2,993 FY 2015 - $4,000 FY 2016 - $4,000

[2] Mandatory Appropriation for the Special Statutory Authority for Type 1 Diabetes Research in accordance with P.L. 112-240, P.L. 113-93 and proposed reauthorization for FY 2016.

NATIONAL INSTITUTES OF HEALTH
National Institute of Diabetes and Digestive and Kidney Diseases

Budget Mechanism - Total[1]

(Dollars in Thousands)

MECHANISM	FY 2014 Actual		FY 2015 Enacted		FY 2016 President's Budget		FY 2016 +/- FY 2015	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount
Research Projects:								
Noncompeting	1,751	$788,123	1,774	$797,122	1,785	$811,120	11	$13,998
Administrative Supplements	*(113)*	14,964	*(100)*	13,000	*(100)*	13,000	*(0)*	0
Competing:								
Renewal	216	101,910	201	94,713	215	101,435	14	6,722
New	460	171,226	443	164,763	464	172,567	21	7,804
Supplements	4	459	4	424	4	423	0	-1
Subtotal, Competing	680	$273,595	648	$259,900	683	$274,425	35	$14,525
Subtotal, RPGs	2,431	$1,076,682	2,422	$1,070,022	2,468	$1,098,545	46	$28,523
SBIR/STTR	105	47,355	113	50,877	117	52,713	4	1,836
Research Project Grants	2,536	$1,124,037	2,535	$1,120,899	2,585	$1,151,258	50	$30,359
Research Centers:								
Specialized/Comprehensive	93	$106,891	98	$110,704	100	$113,206	2	$2,502
Clinical Research	0	0	0	0	0	0	0	0
Biotechnology	0	6	0	0	0	0	0	0
Comparative Medicine	0	541	0	541	0	541	0	0
Research Centers in Minority Institutions	0	0	0	0	0	0	0	0
Research Centers	93	$107,439	98	$111,245	100	$113,747	2	$2,502
Other Research:								
Research Careers	491	$73,725	491	$73,740	501	$75,240	10	$1,500
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	580	0	580	0	580	0	0
Other	105	49,796	105	50,515	105	50,520	0	5
Other Research	596	$124,101	596	$124,835	606	$126,340	10	$1,505
Total Research Grants	3,225	$1,355,577	3,229	$1,356,979	3,291	$1,391,345	62	$34,366
Ruth L Kirchstein Training Awards:	FTTPs		FTTPs		FTTPs		FTTPs	
Individual Awards	261	$12,319	261	$12,504	284	$13,602	23	$1,098
Institutional Awards	827	44,269	827	44,951	827	44,960	0	9
Total Research Training	1,088	$56,588	1,088	$57,455	1,111	$58,562	23	$1,107
Research & Develop. Contracts	108	$92,103	107	$91,048	108	$92,131	1	$1,083
(SBIR/STTR) (non-add)	*(3)*	*(259)*	*(6)*	*(499)*	*(2)*	*(100)*	*(-4)*	*(-399)*
Intramural Research	339	175,919	341	177,678	341	179,455	0	1,777
Res. Management & Support	289	65,099	291	65,980	291	66,640	0	660
Res. Management & Support (SBIR Admin) (non-add)	*(3)*	*(20)*	*(30)*	*(250)*	*(0)*	*(0)*	*(-30)*	*(-250)*
Total, NIDDK	628	$1,745,286	632	$1,749,140	632	$1,788,133	0	$38,993

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

NATIONAL INSTITUTES OF HEALTH
Type 1 Diabetes

Budget Mechanism - Total[1]

(Dollars in Thousands)

MECHANISM	FY 2014 Actual		FY 2015 Enacted		FY 2016 President's Budget		FY 2016 +/- FY 2015	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount
Research Projects:								
Noncompeting	14	$16,187	16	$18,000	18	$19,100	2	$1,100
Administrative Supplements	*(10)*	5,479	*(9)*	5,300	*(7)*	4,800	*(-2)*	-500
Competing:								
Renewal	0	0	0	0	0	0	0	0
New	34	108,076	38	116,793	37	116,521	-1	-272
Supplements	0	0	0	0	0	0	0	0
Subtotal, Competing	34	$108,076	38	$116,793	37	$116,521	-1	-$272
Subtotal, RPGs	48	$129,742	54	$140,093	55	$140,421	1	$328
SBIR/STTR	11	4,495	13	4,939	14	5,164	1	225
Research Project Grants	59	$134,237	67	$145,032	69	$145,585	2	$553
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	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
Other Research:								
Research Careers	6	$2,561	6	$2,561	5	$2,000	-1	-$561
Cancer Education	0	0	0	0	0	0	0	0
Cooperative Clinical Research	0	2,000	0	2,000	0	2,000	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	1	77	1	77	1	80	0	3
Other Research	7	$4,638	7	$4,638	6	$4,080	-1	-$558
Total Research Grants	66	$138,875	74	$149,670	75	$149,665	1	-$5
Ruth L Kirchstein Training Awards:	FTTPs		FTTPs		FTTPs		FTTPs	
Individual Awards	0	$0	0	$0	0	$0	0	$0
Institutional Awards	6	325	6	330	6	335	0	5
Total Research Training	6	$325	6	$330	6	$335	0	$5
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	0	0	0	0	0	0	0
Res. Management & Support (SBIR Admin) (non-add)	*(0)*	*(0)*	*(0)*	*(0)*	*(0)*	*(0)*	*(0)*	*(0)*
Total, T1D	0	$139,200	0	$150,000	0	$150,000	0	$0

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

Major Changes in the Fiscal Year 2016 President's Budget Request

Major changes by budget mechanism and/or budget activity detail are briefly described below. Note that there may be overlap between budget mechanisms and activity detail and these highlights will not sum to the total change for the FY 2016 President's Budget for NIDDK, which is $38.993 million more than the FY 2015 Enacted level, for a total of $1,788.133 million which excludes the Special Statutory Authority for Type 1 Diabetes of $150 million.

Research Project Grants (RPGs; +$28.5 million; total $1.099 billion): NIDDK will continue to support competing RPGs—683 awards in FY 2016. About 1785 noncompeting RPG awards, totaling $1.099 billion, will also be made in FY 2016.

The Mouse Metabolic Phenotyping Centers (MMPC; +$4.82 million; total $4.82 million): These centers provide high quality experimental testing services to U.S. scientists studying diabetes, obesity, diabetic complications, and other metabolic diseases in mice.

Centers for Diabetes Translation Research (CDTR; +$4 million; total $4 million): These centers advance diabetes dissemination and implementation research to close the gap between efficacy and practice. They enhance the efficiency, productivity, and multidisciplinary nature of diabetes translation research through shared access to specialized technical expertise and resources.

Host-Microbiota Interactions Program (+$2.5 million, total $2.5 million): This program will include a set of initiatives that enable the discovery of microbiome-derived factors that affect human health. The initiatives will encourage research to define relationships between humans and the microbiome, and identify and foster opportunities for manipulating the microbiome to treat diseases.

Multidisciplinary Urinary Stone Disease Research Network (+$4 million; total $4 million): This initiative will establish a consortium of interdisciplinary research teams who will conduct clinical studies and basic research to improve treatment, diagnosis, and understanding the cause of urinary stones.

GenitoUrinary Development Molecular Anatomy Project 3 (GUDMAP3; +$3 million, total $3 million): The goals of the ongoing GUDMAP program are to understand urinary tract tissue maturation and aging, disease, and ultimately organ repair and regeneration. In FY 2016, GUDMAP will be expanded to include the analysis of human tissue.

NATIONAL INSTITUTES OF HEALTH
National Institute of Diabetes and Digestive and Kidney Diseases

Summary of Changes
(Dollars in Thousands)

FY 2015 Enacted	$1,749,140
FY 2016 President's Budget	$1,788,133
Net change	$38,993

CHANGES	FY 2016 President's Budget		Change from FY 2015	
	FTEs	Budget Authority	FTEs	Budget Authority
A. Built-in:				
1. Intramural Research:				
a. Annualization of January 2015 pay increase & benefits		$70,277		$142
b. January FY 2016 pay increase & benefits		70,277		425
c. One more day of pay (n/a for 2015)		70,277		154
d. Differences attributable to change in FTE		70,277		0
e. Payment for centrally furnished services		29,896		729
f. Increased cost of laboratory supplies, materials, other expenses, and non-recurring costs		79,282		327
Subtotal				$1,777
2. Research Management and Support:				
a. Annualization of January 2015 pay increase & benefits		$40,940		$100
b. January FY 2016 pay increase & benefits		40,940		301
c. One more day of pay (n/a for 2015)		40,940		114
d. Differences attributable to change in FTE		40,940		0
e. Payment for centrally furnished services		1,478		36
f. Increased cost of laboratory supplies, materials, other		24,222		109
Subtotal				$660
Subtotal, Built-in				$2,437

NATIONAL INSTITUTES OF HEALTH
National Institute of Diabetes and Digestive and Kidney Diseases

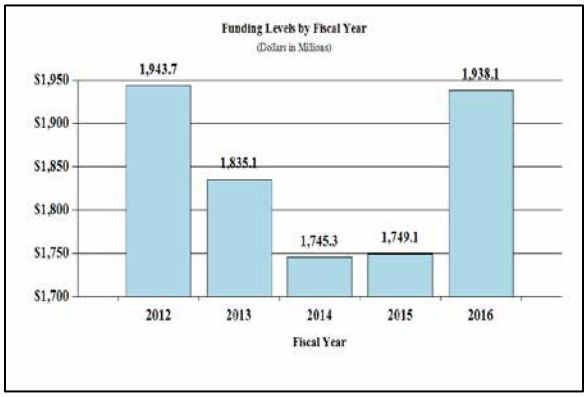
Summary of Changes - Continued

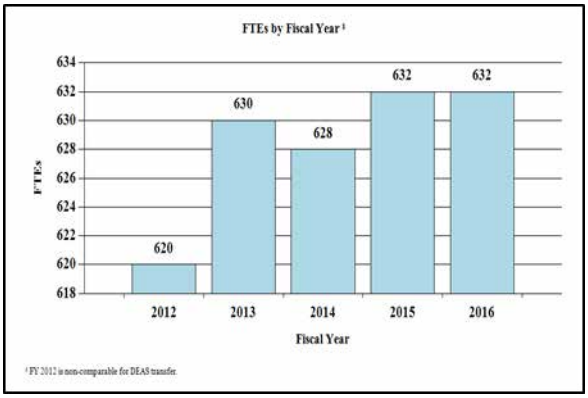
(Dollars in Thousands)

CHANGES	FY 2016 President's Budget		Change from FY 2015	
	No.	Amount	No.	Amount
B. Program:				
1. Research Project Grants:				
a. Noncompeting	1,785	$824,120	11	
b. Competing	683	274,425	35	14,525
c. SBIR/STTR	117	52,713	4	1,836
Subtotal, RPGs	2,585	$1,151,258	50	$30,359
2. Research Centers	100	$113,747	2	$2,502
3. Other Research	606	126,340	10	1,505
4. Research Training	1,111	58,562	23	1,107
5. Research and development contracts	108	92,131	1	1,083
Subtotal, Extramural		$1,542,038		$36,556
	FTEs		FTEs	
6. Intramural Research	341	$179,455	0	$0
7. Research Management and Support	291	66,640	0	0
Subtotal, Program	632	$1,788,133	0	$36,556
Total changes				$38,993

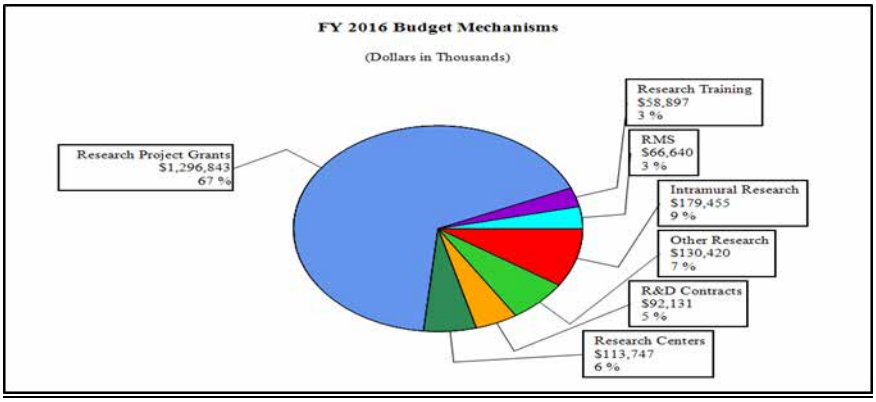
Fiscal Year 2016 Budget Graphs

History of Budget Authority and FTEs:

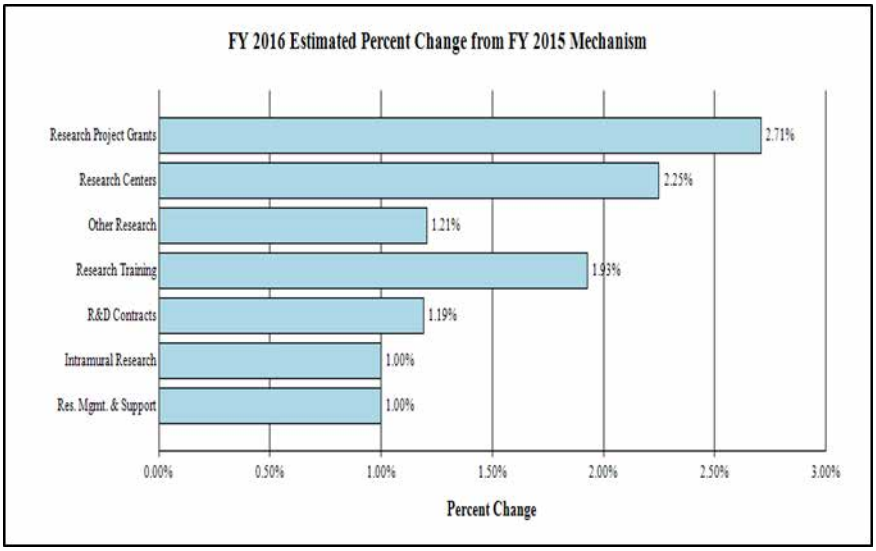




Distribution by Mechanism:



Change by Mechanism:



NATIONAL INSTITUTES OF HEALTH
National Institute of Diabetes and Digestive and Kidney Diseases

Budget Authority by Activity[1]
(Dollars in Thousands)

	FY 2014 Actual		FY 2015 Enacted		FY 2016 President's Budget		FY 2016 +/- FY2015	
Extramural Research	**FTE**	**Amount**	**FTE**	**Amount**	**FTE**	**Amount**	**FTE**	**Amount**
Detail								
Diabetes, Endocrinology, and Metabolic Diseases		$617,178		$617,720		$632,235		$14,515
Digestive Diseases and Nutrition		464,251		464,662		478,032		13,370
Kidney, Urologic, and Hematologic Diseases		422,730		423,100		431,771		8,671
Subtotal, Extramural		**$1,504,159**		**$1,505,482**		**$1,542,038**		**$36,556**
Type 1 Diabetes (non-add) [2]		*(139,200)*		*(150,000)*		*(150,000)*		*(0)*
Intramural Research	**339**	**$175,919**	**341**	**$177,678**	**341**	**$179,455**	**0**	**$1,777**
Research Management & Support	**289**	**$65,099**	**291**	**$65,980**	**291**	**$66,640**	**0**	**$660**
TOTAL	**628**	**$1,745,177**	**632**	**$1,749,140**	**632**	**$1,788,133**	**0**	**$38,993**

[1] Includes FTEs whose payroll obligations are supported by the NIH Common Fund.
[2] Mandatory Appropriation for the Special Statutory Authority for Type 1 Diabetes Research in accordance with P.L. 112-240, P.L. 113-93 and proposed reauthorization for FY 2016.

NATIONAL INSTITUTES OF HEALTH
National Institute of Diabetes and Digestive and Kidney Diseases

Authorizing Legislation

	PHS Act/ Other Citation	U.S. Code Citation	2015 Amount Authorized	FY 2015 Enacted	2016 Amount Authorized	FY 2016 President's Budget
Research and Investigation	Section 301	42§241	Indefinite	$1,749,140,000	Indefinite	$1,788,133,000
National Institute of Diabetes and Digestive and Kidney Diseases	Section 401(a)	42§281	Indefinite		Indefinite	
Total, Budget Authority				$1,749,140,000		$1,788,133,000

NATIONAL INSTITUTES OF HEALTH
National Institute of Diabetes and Digestive and Kidney Diseases

Appropriations History

Fiscal Year	Budget Estimate to Congress	House Allowance	Senate Allowance	Appropriation
2006	$1,872,146,000	$1,872,146,000	$1,917,919,000	$1,854,925,000
Rescission				($17,221,000)
2007	$1,844,298,000	$1,844,298,000	$1,857,753,000	$1,855,868,000
Rescission				$0
2008	$1,858,045,000	$1,881,893,000	$1,897,784,000	$1,855,868,000
Rescission				$0
Supplemental				$9,077,000
2009	$1,858,487,000	$1,767,071,000	$1,755,881,000	$1,911,338,000
Rescission				$0
2010	$1,931,494,000	$1,974,251,000	$1,940,518,000	$1,958,100,000
Rescission				$0
2011	$2,007,589,000		$2,004,674,000	$1,958,100,000
Rescission				($15,876,196)
2012	$1,987,957,000	$1,987,957,000	$1,922,045,000	$1,950,447,000
Rescission				($3,402,845)
2013	$1,942,107,000		$1,947,539,000	$1,947,044,155
Rescission				($3,594,088)
Sequestration				($97,849,260)
2014	$1,961,786,000		$1,799,745,000	$1,894,274,000
Rescission				$0
Sequestration				($10,800,000)
2015	$1,893,336,000			$1,899,681,000
Rescission				$0
2016	$1,938,133,000			

Justification of Budget Request

National Institute of Diabetes and Digestive and Kidney Diseases

Authorizing Legislation: Section 301 and title IV of the Public Health Service Act, as amended.

Budget Authority (BA):

	FY 2014 Actual	FY 2015 Enacted	FY 2016 President's Budget	FY 2016 +/- FY 2015
BA	$1,884,485,674	$1,899,140,000	$1,938,133,000	+$38,993,000
Type 1 Diabetes	-$139,200,000	-$150,000,000	-$150,000,000	0
Labor/HHS:	$1,745,285,674	$1,749,140,000	$1,788,133,000	+$38,993,000
FTEs	628	632	632	

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

Director's Overview

The mission of the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) is to support and conduct research to combat diabetes and other endocrine and metabolic diseases, liver and other digestive diseases, nutritional disorders, obesity, and kidney, urologic, and hematologic diseases. These diseases are chronic, common, costly, and consequential for patients, their families, and the Nation. Diabetes afflicts an estimated 29.1 million people in the United States, greatly increasing the risk for many serious complications, such as heart disease and kidney failure.[1] Estimates of chronic kidney disease (CKD) show that more than 23 million Americans are affected, and over 590,000 have irreversible kidney failure.[2] Many urologic diseases are also highly prevalent.[3] Digestive diseases account for an estimated 48 million visits to doctor's offices, outpatient hospital clinics, and emergency departments, as well as 21 million hospitalizations.[4] Obesity affects approximately one-third of U.S. adults and about 17 percent of children and adolescents,[5] and is a strong risk factor for type 2 diabetes, nonalcoholic steatohepatitis (NASH), and many other diseases. Cystic fibrosis and other

[1] Centers for Disease Control and Prevention. National Diabetes Statistics Report: Estimates of Diabetes and Its Burden in the United States, 2014. Atlanta, GA: U.S. Department of Health and Human Services; 2014.
[2] Levey AS, et al. Ann Intern Med 150: 604-612, 2009.; U.S. Renal Data System, USRDS 2011 Annual Data Report: Atlas of Chronic Kidney Disease and End-Stage Renal Disease in the United States, National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases, Bethesda, MD, 2011.
[3] NIDDK, NIH/DHHS. Kidney and urologic diseases statistics *(http://kidney.niddk.nih.gov/statistics/),* 2010.
[4] National ambulatory medical care survey. Centers for Disease Control and Prevention website. www.cdc.gov/nchs/ahcd/web_tables.htm#2010. Updated March 29, 2012. Accessed May 2, 2013; CDC/NCHS national hospital discharge survey: United States, 2010. Centers for Disease Control and Prevention website. www.cdc.gov/nchs/data/nhds/10Detaileddiagnosesprocedures/2010det10_numberalldiagnoses.pdf. Accessed May 2, 2013.
[5] Ogden CL, et al. JAMA 311: 806-14, 2014.

genetic diseases within NIDDK's purview are less widespread, but still devastating in their impact. Building on emerging opportunities from past research investments, NIDDK will continue to pursue discovery, clinical, and translational research; research training and career development; and health information dissemination, with continued focus on preserving a robust investigator-initiated research portfolio.

Theme 1: Unraveling Life's Mysteries through Basic Research

In FY 2016, NIDDK will continue supporting multidisciplinary projects studying the gut microbiome, broadly addressing autoimmune diseases such as type 1 diabetes, celiac disease, inflammatory bowel diseases, autoimmune liver diseases, and some forms of CKD and metabolic conditions including obesity, type 2 diabetes, and NASH. NIDDK-supported scientists discovered that children who are malnourished do not harbor gut bacteria typical for their age, even several months after receiving a nutritional intervention.[6] Another study identified a group of bacterial genes that allow a species of bacteria to take up residence in a specific area of a mouse's gut, providing insight into how bacteria grow and survive in the turbulent environment of the gastrointestinal tract.[7] Researchers linked a gene to obesity by finding that its activity is enhanced by regions of DNA near another gene previously implicated in obesity.[8] Scientists also have identified a new bodily defense mechanism deployed by a type of kidney cell in the fight against urinary tract infections.[9] The multiethnic type 2 diabetes GENES Consortium is aggregating results from 27 large genetic data sets to allow researchers and the general public to explore the genomic data. This may serve as a prototype for a trans-NIH Accelerating Medicines Partnership (AMP) Type 2 Diabetes Knowledge Portal.

Theme 2: Translating Discovery into Health

In FY 2016, NIDDK will continue to support research into the causes of and treatments for human diseases. Analysis of data from The Environmental Determinants of Diabetes in the Young (TEDDY) Consortium found that more than one quarter of children with two copies of a specific genetic variant develop an early sign of celiac disease by age five.[10] Another study has found that adults with severe obesity had substantial weight loss three years after bariatric surgery, with significant improvements in diabetes, high blood pressure, and blood cholesterol.[11] In a recent study in adolescents with severe obesity and weight-related health issues who underwent bariatric surgery, researchers found few incidences of major complications in the first 30 days after the surgery.[12] In a clinical trial to examine sphincterotomy with the intent of relieving pain after gallbladder removal, researchers have found that this procedure, which carries considerable risk of major complications, may not be effective.[13] Results from a pediatric study have shown that long-term use of a drug combination can reduce the risk of recurrent urinary tract infection by up to 80 percent in children with vesicoureteral reflux, a condition where urine flows back from the bladder into the ureters, and sometimes into the kidneys.[14]

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[6] Subramanian S, et al. Nature 509: 417-421, 2014.
[7] Lee SM, et al. Nature 501: 426-9, 2013.
[8] Smemo S, et al. Nature 507:371-5, 2014.
[9] Paragas N, et al. J Clin Invest 124:2963-76, 2014.
[10] Liu E, et al. N Engl J Med 371:42-9, 2014
[11] Courcoulas AP, et al. JAMA 310: 2416-25, 2013.
[12] Inge TH, et al. JAMA Pediatr 168: 47-53, 2014.
[13] Cotton PB et al. JAMA 311: 2101-9, 2014.
[14] RIVUR Trial Investigators, et al. N Engl J Med 370:2367-76, 2014.

Theme 3: Harnessing Data and Technology to Improve Health
In FY 2016, NIDDK will address questions related to the cause and progression of pancreatic islet autoimmunity and type 1 diabetes by focusing on the population of bacteria and viruses (microbiome, virome) inhabiting the human body, gene expression markers, and the network of small molecules (metabolome) and proteins (proteomics) produced by the body. The NIDDK Central Repository collects biological samples and data from significant NIDDK clinical studies, ensures that the samples are stored under uniform conditions, and provides researchers easy access to the samples. This allows for additional studies to be conducted by the wider scientific community, thereby enhancing the value of the research. Similarly, the Hepatitis B Research Network has developed a biospecimen repository consisting of over 188,000 adult and 7,300 pediatric plasma and sera samples, and 1,350 adult and 168 pediatric DNA specimens, along with a detailed clinical database. The Network plans to pursue translational research opportunities for developing novel treatments for chronic hepatitis B using the biospecimen repository.

Theme 4: Preparing a Diverse and Talented Biomedical Research Workforce
In FY 2016, NIDDK will continue to fund research centers, which support long-term multidisciplinary research programs. The goals of these programs include recruiting new talent, promoting the development of skills necessary to initiate and sustain an independent and innovative research career, and establishing educational enrichment programs to train researchers to more effectively utilize available resources. To attract new investigators to type 1 diabetes research, NIDDK will continue to offer diabetes-related training and career development programs to pediatric endocrinologists, behavioral scientists, and bioengineers. NIDDK also will continue to support awards that enable mid-career health-professionals to devote effort to discovery, epidemiologic, or outcomes research, and to act as research mentors to early-stage investigators from diverse backgrounds underrepresented in biomedical and behavioral research.

Program Descriptions and Accomplishments

Diabetes, Endocrinology, and Metabolic Diseases: The objectives of this program are to enhance the understanding of diabetes and other endocrine and metabolic disorders, and to develop and test prevention and treatment strategies. The program supports basic, clinical, and translational research, as well as research training, in areas that include type 1 and type 2 diabetes, cystic fibrosis, obesity, energy balance, and endocrinology. Knowledge from diabetes research is communicated to patients, health professionals, and the public through the National Diabetes Information Clearinghouse and the National Diabetes Education Program.

Recent NIDDK-supported research has made important contributions to the treatment and prevention of diseases such as diabetes, as well as those associated with the endocrine system and metabolism. NIDDK-supported discovery research efforts shed light on the molecules and pathways that regulate the production of beige fat, a type of fat that burns calories and is induced by cold and exercise. In one study, researchers found that beige fat contributes to the overall metabolic health of mice, and a certain protein in fat tissue is required for the induction of beige fat cells in these animals.[15] In other studies, researchers identified molecules produced in muscle in response to exercise that induce the production of beige fat cells in

[15] Cohen P, et al. Cell 156: 304-316, 2014.

mice.[16,17] Another study in mice showed that lung tumors appear to trigger the induction of beige fat, which contributes to the muscle atrophy and weight loss associated with cancer.[18] Researchers are currently exerting efforts to determine if beige fat is present and can be induced in humans. To advance treatments for diabetes, clinical trials were conducted to evaluate the efficacy of an artificial, or bionic, pancreas—a device that can fully automate blood glucose sensing and insulin administration. The trials showed that nearly all participants using the bionic pancreas were able to achieve recommended levels of blood glucose control while carrying out their typical daytime activities.

Program Portrait: The Beta Cell Biology Consortium (BCBC) and the Human Islet Research Network (HIRN)

FY 2015 Level:	$9.500 million[19]
FY 2016 Level:	$9.500 million
Change:	$0.0 million

The Human Islet Research Network (HIRN) was recently established to build on the successful research of the Beta Cell Biology Consortium (BCBC), which is nearing completion. BCBC is an international group of researchers collaboratively studying how insulin-producing beta cells develop and function, with an ultimate goal of developing cell-based or regenerative therapies for replacing damaged or destroyed beta cells in people with type 1 diabetes (T1D) or severe type 2 diabetes. Additionally, BCBC generates key research resources, such as mouse models and antibodies, for use by the Consortium and the broader scientific community. BCBC made significant contributions to understanding pancreas development and regeneration and advanced the field toward a cell-based therapy. For example, BCBC advances include the finding that when the pancreatic beta cell mass is severely depleted in the mouse to a degree similar to what is observed in patients with long-term T1D, other cells from the pancreatic islet such as glucagon- or somatastatin-producing cells can spontaneously give rise to new insulin-producing beta cells. Another BCBC study described a process to generate large quantities of insulin-producing beta cells from human stem cells, an important step towards a cell-based therapy and key resource for drug screening and disease modeling.

In 2014, in an effort to transition findings from BCBC into human therapies for diabetes, NIDDK established the Human Islet Research Network (HIRN). The objective of HIRN is to help organize and support collaborative translational research related to the loss of functional beta cell mass in T1D. This will broaden the understanding of how human beta cells are lost in T1D and help develop innovative strategies for the treatment, prevention, and monitoring of T1D. HIRN was initiated through issuance of six related funding opportunity announcements, including a Coordinating Center and a Bioinformatics Center, and four independent research initiatives in the following areas: Targeting and Regeneration, Human Islet Biomimetics, Modeling Autoimmune Interactions, and Beta Cell Death and Survival. All HIRN research initiatives place strong emphasis on human disease biology, the use of human cells and tissues, and the development of reagents, methods, and disease-modeling platforms that can help further understanding of the human disease process, or lead to innovative treatment strategies for patients with severely depleted beta cell mass. Beyond the set of six initial funding announcements issued in 2014, it is anticipated that additional HIRN efforts may be initiated in future years to leverage emerging scientific and technological advances.

Budget Policy: The FY 2016 President's Budget estimate for this program is $632.235 million, an increase of $14.515 million or 2.3 percent above the FY 2015 enacted level. With FY 2016 resources, NIDDK will continue major diabetes clinical trials and encourage and support development of major new investigator-initiated clinical studies. FY 2016 funds will also support research capitalizing on new opportunities to identify diabetes risk genes in minority

[16] Rao RR, et al. Cell 157: 1279-1291, 2014.
[17] Roberts LD, et al. Cell Metab 19: 96-108, 2014.
[18] Kir S, et al. Nature 513: 100-104, 2014
[19] Because BCBC is nearing completion, all FY 2015 and FY 2016 funds will be applied to HIRN.

populations, to advance progress toward developing new therapeutic approaches, and to support comparative effectiveness research. NIDDK will also continue to fund translational research in FY 2016 and support health information dissemination activities to bring scientific discoveries in diabetes and obesity to real-world medical practice and other community settings. In FY 2016, NIDDK will continue an initiative encouraging collaborative, multidisciplinary research teams to work on complex biomedical problems in diabetes, endocrinology, and metabolic diseases. NIDDK will also continue funding for research centers to advance research relevant to diabetes and to cystic fibrosis and other genetic metabolic diseases. NIDDK plans for FY 2016 include capitalizing on new findings relevant to brown fat and gestational diabetes and pursuing other efforts as part of an overall balanced research program.

Digestive Diseases and Nutrition: The objectives of this program are to enhance understanding of digestive diseases, nutrition, and obesity, and to develop and test strategies for disease prevention and treatment. This program supports discovery, clinical, and translational research, as well as research training, encompassing fundamental studies of the digestive system; disease-targeted research involving the esophagus, stomach, small intestine, large intestine and anorectum, liver and biliary system, and pancreas; studies relevant to nutrition; and research on obesity. Insights gleaned from scientific efforts are communicated to patients, health professionals, and the public through NIDDK's National Digestive Diseases Information Clearinghouse and Weight-control Information Network.

In FY 2016, NIDDK will continue to support a number of programs aimed at improving the treatment and prevention of diseases associated with the digestive system. In September 2014, NIDDK hosted a workshop to advance the understanding of how host physiology and disease pathophysiology are affected by the gut microbiota. The workshop also defined research needs and opportunities for interrogating host-microbiota interactions and their role in modulating disease. NIDDK will support research to define interactions between the host and the gut microbiota that regulate normal physiology and pathophysiology of diseases. The goal of these projects is to discover specific human gut microbiota-derived factors that affect or are affected by host physiology and disease. Proposed projects will also define the specific interactions and pathways by which microbiota-derived factors affect host processes within the gut and/or at distant organ sites. NIDDK will also continue to support the Hepatitis B Research Network, which is testing treatments in at-risk populations of both children and adults, such as Asian Americans and Pacific Islanders, as well as conducting ancillary studies and assembling a large biospecimen repository and clinical database for future studies. A free source of evidence-based information for health care professionals and for researchers studying liver injury associated with prescription and over-the-counter drugs, herbals, and dietary supplements is available from NIH (www.livertox.nih.gov). Through collaborative interactions among nutrition researchers, NIDDK will promote the exploration of the genetic susceptibility to nutritional diseases and the effects of nutrition on gene activation.

Program Portrait: Childhood Liver Disease Research Network (ChiLDReN)

FY 2015 Level: $6.5 million
FY 2016 Level: $6.5 million
Change: $0.0 million

The NIDDK-sponsored ChiLDReN Network is a collaborative team of doctors, nurses, research coordinators, medical facilities and patient support organizations. The Network has clinical sites and research labs in the U.S. and Canada, and also includes a research lab in London. These sites are working together to improve the lives of children and families dealing with rare liver diseases. ChiLDReN continues, expands, and merges the Biliary Atresia Research Consortium (BARC) and the Cholestatic Liver Disease Consortium (CLiC), and incorporates new studies on cystic fibrosis liver disease.

The ChiLDReN Network was developed to support the discovery of new diagnostic, etiologic, and treatment options for children with liver disease, and those who undergo liver transplantation. A primary goal of the Network is to provide a way for patients to join with doctors and researchers by participating in research studies. Most studies are run at 13 clinical sites in the United States and Canada. The Network also supports training for the next generation of investigators in rare pediatric liver diseases. Recently, scientists participating in ChiLDReN used patient samples and an animal model to identify a genetic deletion that may play a role in the development of biliary atresia, a disorder in which the bile ducts become blocked and destroyed, leading to a back-up of bile and liver damage. This discovery sheds light on the mechanism underlying this life-threatening condition affecting newborn infants. Another ChiLDReN study examined the effects of corticosteroids in 140 infants who underwent surgery (hepatoportoenterostomy) to correct biliary atresia by attaching part of the small intestine directly to the liver. While corticosteroids are commonly given in an attempt to maintain biliary drainage following this surgery, they did not significantly aid the outcome of the surgery after six months, and infants who receive corticosteroids experienced adverse effects more rapidly than the infants receiving the placebo. This evidence suggests that corticosteroids may be unnecessary following surgery to correct biliary atresia, and it could save infants from the burden of unneeded medication and potential attendant adverse side effects.

Budget Policy: The FY 2016 President's Budget estimate for this program is $478.032 million, an increase of $13.370 million or 2.9 percent above the FY 2015 enacted level. In FY 2016, NIDDK will continue major clinical research networks to help understand and treat liver diseases, including hepatitis B and nonalcoholic steatohepatitis. Among its obesity-related efforts in FY 2016, NIDDK will support major ongoing studies to assess the health risks and benefits of weight-loss surgery in extremely obese adolescents and the impact of lifestyle interventions to reduce excessive weight gain in overweight and obese pregnant women. NIDDK will also use FY 2016 funds to support Digestive Diseases Research Core Centers, and to sustain a consortium that is conducting cutting-edge genetic research on inflammatory bowel diseases. Research on intestinal stem cells that can benefit a variety of digestive diseases will continue in FY 2016, along with other efforts as part of an overall balanced research program.

Kidney, Urologic, and Hematologic Diseases: The objectives of this program are to increase the understanding of diseases and disorders of the kidneys, urinary tract, and blood (hematologic), and to develop and test prevention and treatment strategies. Discovery, clinical, and translational research, as well as research training, are supported in the areas of chronic kidney disease (CKD), diabetic kidney disease, end-stage renal disease (ESRD or kidney failure), polycystic kidney disease, and many other kidney diseases; urinary incontinence, benign prostatic hyperplasia, interstitial cystitis/painful bladder syndrome, stones, impotence, congenital urologic disorders, and urinary tract infections; and disorders of the blood and blood-forming organs, including sickle cell disease, Cooley's anemia, hemochromatosis, and the anemia of inflammation and of chronic disease.

In FY 2016, NIDDK will support a research network focused on the expansion of tools, resources, and knowledge that will guide studies on the *in vivo* regeneration of functional kidney cells or *in vitro* generation of kidney cells for transplant. NIDDK will also support a multi-center, multi-disciplinary consortium to be known as the Prevention of Lower Urinary tract Symptoms (PLUS) Research Consortium. The primary objective of this consortium will be to plan, perform, and analyze the research studies necessary to establish the scientific basis for future prevention intervention studies for lower urinary tract symptoms and conditions in women, such as bladder infections, urinary incontinence, voiding dysfunction, overactive bladder, and interstitial cystitis/bladder pain syndrome. NIDDK will also support a consortium to carry out research on novel methods for detection and measurement of organ fibrosis after acute or chronic injury in the kidney, bone marrow, prostate, or urinary tract. Recent studies by the Chronic Renal Insufficiency Cohort (CRIC) Study and the African American Study of Kidney Disease and Hypertension (AASK) found that African Americans who have chronic kidney disease and two copies of common variants in a certain gene are twice as likely to progress to kidney failure as those without these high-risk variants.[20] A new study by the Multidisciplinary Approach to the Study of Chronic Pelvic Pain (MAPP) Research Network suggests that the enlargement of certain brain regions is associated with symptoms in women with interstitial cystitis, a urologic chronic pelvic pain syndrome whose symptoms include urinary urgency, frequency, and pelvic pain.[21]

Program Portrait: Customized Stem Cells for Clinical Application in Blood Disorders

FY 2015 Level:	$1.361 million
FY 2016 Level:	$1.369 million
Change:	$0.008 million

The hematopoietic (blood) stem cell (HSC), a type of adult stem cell, holds great promise for therapy because of its ability to self-renew and develop into any kind of blood cell. This research project merges developmental and chemical biology, computational analysis, and bioengineering to explore the *in vitro* production of long-term hematopoietic stem cells from pluripotent stem cells – cells such as embryonic stem cells and induced (adult) pluripotent stem cells that can develop into many different kinds of other cells. To date, considerable efforts to produce HSCs from pluripotent stem cells have proven only partially successful in mice and largely unsuccessful in humans. This research is examining the developmental pathways that drive the formation of HSCs in embryos, and applying this knowledge to direct the production of HSCs from of pluripotent stem cells. It is building on previous progress, such as the finding that embryonic HSCs from younger mouse embryos performed better when transplanted into newborn mice, whereas developmentally mature, definitive HSCs from older embryos or adult bone marrow more robustly engrafted adults. This research also spawned the development of a publicly accessible network biology platform that determines the quality of engineered stem cells. These efforts at defining the pathways in hematopoietic development could open the door to future stem cell-based therapies for treatment of diseases such as cancer and immune disorders.

Budget Policy: The FY 2016 President's Budget estimate for this program is $431.771 million, an increase of $8.671 million or 2.1 percent above the FY 2015 enacted level. In FY 2016, NIDDK will continue support for ongoing major clinical studies of CKD in adults and children and fund new research to identify and validate biomarkers and risk assessment tools for patients with this condition. NIDDK also plans to continue to sponsor planning grants to conduct translational research on the effectiveness of interventions shown in clinical trials to prevent,

[20] Parsa A, et al. N Engl J Med 369:2183-96, 2013.
[21] Kairys AE, et al. J Urol doi: 10.1016/j.juro.2014.08.04, 2014.

treat, and manage CKD, and will continue to sponsor studies to improve adherence to medical therapy in adolescents with CKD. In FY 2016, NIDDK will continue studies to improve measurements of outcomes in lower urinary tract disorders of the prostate and urinary bladder. NIDDK will continue support for the Consortium for Radiologic Imaging Studies of polycystic kidney disease (PKD); results of these studies will help to define measures of kidney disease progression. Centers focused on kidney, urologic, and hematologic research will receive continued funding, as will research on acute kidney injury. NIDDK will also continue support for the Systolic Blood Pressure Intervention Trial (led by NHLBI) and for other efforts as part of an overall balanced research portfolio.

Special Statutory Funding Program for Type 1 Diabetes Research: Complementing efforts of the Diabetes, Endocrinology, and Metabolic Disease program, the Special Program's goal is to foster improved treatment, prevention, and cure of type 1 diabetes, and its complications through basic, clinical, and translational research around six scientific goals: 1) identifying genetic and environmental causes of type 1 diabetes ($40 million); 2) preventing or reversing the disease ($40 million); 3) developing cell replacement therapy ($10 million); 4) improving management and care ($30 million); 5) preventing or reducing diabetes complications ($15 million); and 6) attracting new talent and applying new technologies to research ($15 million) (FY 2016 estimate dollars). Although focused on type 1 diabetes, aspects of this research are relevant to other autoimmune disorders, as well as type 2 diabetes. Both type 1 and type 2 diabetes share impaired function of insulin-producing beta cells of the pancreas along with potential complications, such as heart disease, stroke, blindness, kidney failure, nerve damage, and lower limb amputations. In 2015, NIDDK expanded a team science program to identify innovative strategies to protect or replace beta cells in people with type 1 diabetes, and research projects toward improving management of the disease in young children and in adults. NIDDK continued to fund clinical trials networks to test agents to prevent or reverse type 1 diabetes. NIDDK supported academic and small business research to advance progress in development and testing of artificial pancreas technologies. NIDDK also continued to support ancillary studies using archived clinical samples to maximize past investments in clinical research.

Budget Policy: The FY 2016 President's Budget request for the Special Statutory Funding Program for Type 1 Diabetes Research is proposed for reauthorization at $150.000 million.

Intramural Research: The objective of the Institute's Intramural Research Program (IRP) is to conduct basic, translational, and clinical biomedical research related to diabetes and other endocrine and metabolic diseases; digestive diseases, including liver diseases and nutritional disorders; obesity; kidney diseases; and hematologic diseases. Intramural research is conducted in the Institute's laboratories and clinical facilities in Bethesda, Maryland, as well as in Phoenix, Arizona, where a long-standing research relationship with the Pima Indians in the region, who have the highest rate of diabetes in the world, has led to important scientific advances in type 2 diabetes and obesity. For example, NIDDK's IRP is using genome-wide association studies on large cohorts of Americans Indians to identify genes linked to increased risk for obesity and diabetes, including two new genes this past year.[22,23] IRP research on sickle cell disease developed an improved method of transplantation to cure severe disease in 87 percent of patients

[22] Del Rosario MC, et al. Metabolism 63: 654-660, 2014.
[23] Hanson RL, et al. Diabetes 63: 369-376, 2014.

with minimal graft-versus-host complications.[24] Other IRP research determined how a cell surface receptor is stimulated at the molecular level to aid anti-blood clotting drug development,[25,26] used structural and computational methods to describe the mechanism of HIV fusion to cell membranes during infection,[27] revealed new insights into how the gene underlying a common cause of inherited intellectual disability and autism spectrum disorders is suppressed in affected patients,[28] and demonstrated that low-level exposure to hepatitis C virus weakens the immune system response to subsequent infection by the virus.[29] Research training is also an integral component of the IRP. This training occurs in both clinical and basic laboratory research at the high school, postbaccalaureate, postdoctoral, and clinical fellow level, including summer programs specifically targeting under-represented minorities.

Budget Policy: The FY 2016 President's Budget estimate for this program is $179.455 million or 1.0 percent above the FY 2015 Enacted level.

Research Management and Support (RMS): RMS activities provide administrative, budgetary, logistical, and scientific support in the review, award, and monitoring of research grants, training awards, and research and development contracts. RMS functions also encompass strategic planning, coordination, and evaluation of the Institute's programs, regulatory compliance, international coordination, and liaison with other federal agencies, Congress, and the public. Through RMS activities, NIDDK continues to administratively support meritorious discovery, clinical, and translational research and research training efforts, and also continues its health information dissemination and education/outreach activities. Additionally, NIDDK continues its strategic planning, program evaluation, and other necessary related activities.

Budget Policy: The FY 2016 President's Budget estimate for this program is $66.640 million or 1.0 percent above the FY 2015 Enacted level.

[24] Hsieh MM, et al. JAMA 312, 48-56, 2014.
[25] Zhang K, et al., Nature 509, 115-118, 2014.
[26] Zhang J, et al., Nature 509, 119-122, 2014.
[27] Roche J, et al., PNAS 111, 3425-3430, 2014.
[28] Kumari D and Usdin K, Hum Mol Genet pii: ddu378, 2014.
[29] Park SH et al., Nature Med 19, 1638-1642, 2014.

NATIONAL INSTITUTES OF HEALTH
National Institute of Diabetes and Digestive and Kidney Diseases

Budget Authority by Object Class[1]
(Dollars in Thousands)

	FY 2015 Enacted	FY 2016 President's Budget	FY 2016 +/- FY 2015
Total compensable workyears:			
Full-time employment	632	632	0
Full-time equivalent of overtime and holiday hours	1	1	0
Average ES salary	$175	$177	$2
Average GM/GS grade	12.0	12.0	0.0
Average GM/GS salary	$100	$101	$1
Average salary, grade established by act of July 1, 1944 (42 U.S.C. 207)	$107	$108	$1
Average salary of ungraded positions	$136	$137	$1

	OBJECT CLASSES	FY 2015 Enacted	FY 2016 President's Budget	FY 2016 +/- FY 2015
	Personnel Compensation			
11.1	Full-Time Permanent	$37,463	$37,981	$518
11.3	Other Than Full-Time Permanent	32,659	33,110	451
11.5	Other Personnel Compensation	1,382	1,401	19
11.7	Military Personnel	1,635	1,652	17
11.8	Special Personnel Services Payments	12,428	12,549	121
11.9	**Subtotal Personnel Compensation**	**$85,567**	**$86,693**	**$1,126**
12.1	Civilian Personnel Benefits	$22,460	$23,268	$808
12.2	Military Personnel Benefits	1,243	1,256	13
13.0	Benefits to Former Personnel	0	0	0
	Subtotal Pay Costs	**$109,270**	**$111,217**	**$1,947**
21.0	Travel & Transportation of Persons	$1,787	$1,787	$0
22.0	Transportation of Things	182	182	0
23.1	Rental Payments to GSA	3	3	0
23.2	Rental Payments to Others	0	0	0
23.3	Communications, Utilities & Misc. Charges	1,670	1,670	0
24.0	Printing & Reproduction	82	87	5
25.1	Consulting Services	$2,229	$2,221	-$8
25.2	Other Services	10,110	9,752	-358
25.3	Purchase of goods and services from government accounts	173,709	182,816	9,107
25.4	Operation & Maintenance of Facilities	$584	$542	-$42
25.5	R&D Contracts	18,304	15,454	-2,850
25.6	Medical Care	1,224	1,224	0
25.7	Operation & Maintenance of Equipment	5,333	5,273	-60
25.8	Subsistence & Support of Persons	0	0	0
25.0	**Subtotal Other Contractual Services**	**$211,493**	**$217,282**	**$5,789**
26.0	Supplies & Materials	$11,899	$11,897	-$2
31.0	Equipment	8,900	8,300	-600
32.0	Land and Structures	0	0	0
33.0	Investments & Loans	0	0	0
41.0	Grants, Subsidies & Contributions	1,403,854	1,435,708	31,854
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	**$1,639,870**	**$1,676,916**	**$37,046**
	Total Budget Authority by Object Class	**$1,749,140**	**$1,788,133**	**$38,993**

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

NATIONAL INSTITUTES OF HEALTH
National Institute of Diabetes and Digestive and Kidney Diseases

Salaries and Expenses
(Dollars in Thousands)

OBJECT CLASSES	FY 2015 Enacted	FY 2016 President's Budget	FY 2016 +/- FY 2015
Personnel Compensation			
Full-Time Permanent (11.1)	$37,463	$37,981	$518
Other Than Full-Time Permanent (11.3)	32,659	33,110	451
Other Personnel Compensation (11.5)	1,382	1,401	19
Military Personnel (11.7)	1,635	1,652	17
Special Personnel Services Payments (11.8)	12,428	12,549	121
Subtotal Personnel Compensation (11.9)	**$85,567**	**$86,693**	**$1,126**
Civilian Personnel Benefits (12.1)	$22,460	$23,268	$808
Military Personnel Benefits (12.2)	1,243	1,256	13
Benefits to Former Personnel (13.0)	0	0	0
Subtotal Pay Costs	**$109,270**	**$111,217**	**$1,947**
Travel & Transportation of Persons (21.0)	$1,787	$1,787	$0
Transportation of Things (22.0)	182	182	0
Rental Payments to Others (23.2)	0	0	0
Communications, Utilities & Misc. Charges	1,670	1,670	0
Printing & Reproduction (24.0)	82	87	5
Other Contractual Services:			
Consultant Services (25.1)	908	890	-18
Other Services (25.2)	10,110	9,752	-358
Purchases from government accounts (25.3)	112,427	111,681	-746
Operation & Maintenance of Facilities (25.4)	584	542	-42
Operation & Maintenance of Equipment (25.7)	5,333	5,273	-60
Subsistence & Support of Persons (25.8)	0	0	0
Subtotal Other Contractual Services	**$129,362**	**$128,138**	**-$1,224**
Supplies & Materials (26.0)	$11,899	$11,897	-$2
Subtotal Non-Pay Costs	**$144,982**	**$143,761**	**-$1,221**
Total Administrative Costs	**$254,252**	**$254,978**	**$726**

NATIONAL INSTITUTES OF HEALTH
National Institute of Diabetes and Digestive and Kidney Diseases

Detail of Full-Time Equivalent Employment (FTE)

OFFICE/DIVISION	FY 2014 Actual			FY 2015 Enacted			FY 2016 President's Budget		
	Civilian	Military	Total	Civilian	Military	Total	Civilian	Military	Total
Division of Diabetes, Endocrinology, and Metabolic Diseases									
Direct:	27	2	29	27	2	29	27	2	29
Reimbursable:	2	-	2	2	-	2	2	-	2
Total:	29	2	31	29	2	31	29	2	31
Division of Digestive Diseases and Nutrition									
Direct:	21	3	24	22	2	24	22	2	24
Reimbursable:	-	-	-	-	-	-	-	-	-
Total:	21	3	24	22	2	24	22	2	24
Division of Extramural Activities									
Direct:	66	1	67	66	1	67	66	1	67
Reimbursable:	-	-	-	-	-	-	-	-	-
Total:	66	1	67	66	1	67	66	1	67
Division of Intramural Research Programs									
Direct:	322	9	331	324	9	333	324	9	333
Reimbursable:	8	-	8	8	-	8	8	-	8
Total:	330	9	339	332	9	341	332	9	341
Division of Kidney, Urologic, and Hematologic Diseases									
Direct:	22	-	22	22	-	22	22	-	22
Reimbursable:	-	-	-	-	-	-	-	-	-
Total:	22	-	22	22	-	22	22	-	22
Division of Nutrition Research Coordination									
Direct:	8	-	8	8	-	8	8	-	8
Reimbursable:	-	-	-	-	-	-	-	-	-
Total:	8	-	8	8	-	8	8	-	8
Office of the Director									
Direct:	137	-	137	139	-	139	139	-	139
Reimbursable:	-	-	-	-	-	-	-	-	-
Total:	137	-	137	139	-	139	139	-	139
Total	613	15	628	618	14	632	618	14	632

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

FISCAL YEAR	Average GS Grade
2012	12.0
2013	12.0
2014	12.0
2015	12.0
2016	12.0

NATIONAL INSTITUTES OF HEALTH
National Institute of Diabetes and Digestive and Kidney Diseases

Detail of Positions[1]

GRADE	FY 2014 Actual	FY 2015 Enacted	FY 2016 President's Budget
Total, ES Positions	1	1	1
Total, ES Salary	173,072	174,803	176,551
GM/GS-15	47	47	47
GM/GS-14	66	66	66
GM/GS-13	92	93	93
GS-12	57	57	58
GS-11	43	44	43
GS-10	0	0	0
GS-9	26	25	24
GS-8	22	23	24
GS-7	23	24	24
GS-6	2	2	2
GS-5	3	4	4
GS-4	1	2	2
GS-3	1	1	1
GS-2	0	0	0
GS-1	0	0	0
Subtotal	383	388	388
Grades established by Act of July 1, 1944 (42 U.S.C. 207)	0	0	0
Assistant Surgeon General	0	0	0
Director Grade	9	9	9
Senior Grade	5	4	4
Full Grade	0	0	0
Senior Assistant Grade	1	1	1
Assistant Grade	0	0	0
Subtotal	15	14	14
Ungraded	247	247	247
Total permanent positions	388	388	388
Total positions, end of year	646	650	650
Total full-time equivalent (FTE) employment, end of year	628	632	632
Average ES salary	173,072	174,803	176,551
Average GM/GS grade	12.0	12.0	12.0
Average GM/GS salary	98,547	99,532	100,527

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