

# *National Institutes of Health*

## *Summary of the FY 2008 President's Budget*



February 5, 2007

## NIH Budget at a Glance

### National Institutes of Health (dollars in millions)

	<b>FY 2006 Actual</b>	<b>FY 2007 President's Budget</b>	<b>FY 2007 Estimate</b>	<b>FY 2008 Estimate</b>	<b>Change from FY 2007 Estimate</b>
<b>Labor/HHS Discretionary Budget Authority (B.A.)</b>	<b>\$28,287</b>	<b>\$28,190</b>	<b>\$28,389</b>	<b>\$28,621</b>	<b>\$233</b>
Interior B.A.	\$79	\$78	\$79	\$78	-\$1
<b>Total Discretionary B.A.</b>	<b>\$28,366</b>	<b>\$28,268</b>	<b>\$28,468</b>	<b>\$28,700</b>	<b>\$232</b>
Type I Diabetes Initiative	\$150	\$150	\$150	\$150	\$0
Total B. A.	\$28,516	\$28,418	\$28,618	\$28,850	\$232
NIH Program Level	\$28,524	\$28,427	\$28,626	\$28,858	\$232
<i>Number of Competing RPGs</i>	<i>9,129</i>	<i>9,144</i>	<i>9,622</i>	<i>10,188</i>	<i>566</i>
<i>Total Number of RPGs</i>	<i>38,313</i>	<i>37,566</i>	<i>38,089</i>	<i>38,063</i>	<i>-26</i>
<i>FTEs</i>	<i>16,880</i>	<i>17,456</i>	<i>17,216</i>	<i>17,459</i>	<i>+243</i>

The Fiscal Year (FY) 2008 President's Budget for NIH is \$28,858 million at the total program level and total budget authority in the FY 2008 Request is \$28,850 million; both levels are +\$232 million over the FY 2007 Estimate. Included in these levels are \$78 million for the Superfund Research Program. The NIH program and total budget authority levels include \$150 million for the Type I Diabetes Initiative.

The NIH Reform Act of 2006 will improve NIH program coordination and operations as well as provide the structure and flexibility demanded by the new era of medical research. NIH is working on the implementation of this new authorization during calendar 2007.

NIH continues to provide an extraordinarily positive long-term return on investment for America. Thirty years ago it was common to suddenly die of a heart attack or stroke between the ages of 50 and 60. Were it not for the NIH-supported research and its further development by industry on the causes and treatment of heart disease, heart attacks would account for 1.3 million deaths per year instead of the actual 515,000 deaths experienced annually. Reducing the toll of heart disease and stroke is just one example of numerous NIH success stories – stories that are the result of decades of basic research and clinical trials which improved the prevention, diagnosis and treatment of many diseases. Another example is the absolute number of cancer deaths has decreased in our country for the second year in a row, a remarkable development given the larger and older population of our country. Survivorship for cancer is at an all time high.

The global AIDS pandemic would be much worse if it were not for NIH research, which led to the development of highly active antiretroviral drugs. It saved over 3 million years of life in the

United States alone and reduced the number of mother to child HIV transmissions by more than 10-fold over the past ten years.

In 2006, research supported by NIH and subsequent development in Industry led to FDA approval of the first vaccine against human papilloma virus--the underlying cause of many cervical cancers. It has the potential to prevent 70 percent of the 10,000 cervical cancers that strike American women and hundreds of thousands of women worldwide each year.

Aging of the population, due in part to our success in reducing early deaths from once acute and lethal diseases, has led to a new set of challenges driven by chronic diseases. Today, over 75 percent of health care expenditures are related to chronic and complex diseases.

Thanks to the broad and recent advances in genomics, proteomics, computational biology and many other fields of science, it is now possible to envision a future and transformative era of medicine and health that will be increasingly predictive, personalized and preemptive. This era will also require more active participation by individuals and communities in their own care. Our increasing ability to explore and understand the fundamental causes of disease at the earliest molecular stages will allow us to **predict** when a disease will develop. Through growing knowledge of individual genetic differences and response to environment we are increasingly able to implement individually targeted or **personalized** treatment. Ultimately, this approach will allow us to **preempt** disease before it occurs. Finally, **participation** of individuals, communities and healthcare institutions in this revolutionary new medicine is a critical component of the 21<sup>st</sup> century paradigm.

The pace of discovery in biomedical sciences has never been as rapid or as promising as in the recent past. Research institutions throughout the country have responded to the call for more research and have invested their own resources in facilities and new research faculty to address the growing scope and costs of health challenges. This has made NIH funding more competitive than ever. NIH continues to think creatively and strategically to sustain the successful research programs of our talented grantees and intramural scientists and to capitalize on the expanded opportunities and intellectual resources that the American public has already invested in the NIH. We face many tough choices and we continue to make the difficult calls necessary to sustain to the greatest extent possible the vitality of our science in an increasingly competitive global environment.

Our immediate focus is to buttress core areas of vulnerability by maintaining an adequate pipeline of new investigators especially in novel and recently emerging areas of opportunity. In FY 2008, NIH will expand the new "Pathway to Independence" program as we maintain support for new investigators at historical levels. At the same time we are focusing resources on funding adequate numbers of established investigators through investigator initiated Research Project Grants (RPGs). The FY 2008 request supports one of the highest levels of RPGs. We will encourage more interdisciplinary research to address the daunting scope and complexity of our health challenges by facilitating and reducing barriers to collaborations across all disciplines of physical, biological and behavioral sciences.

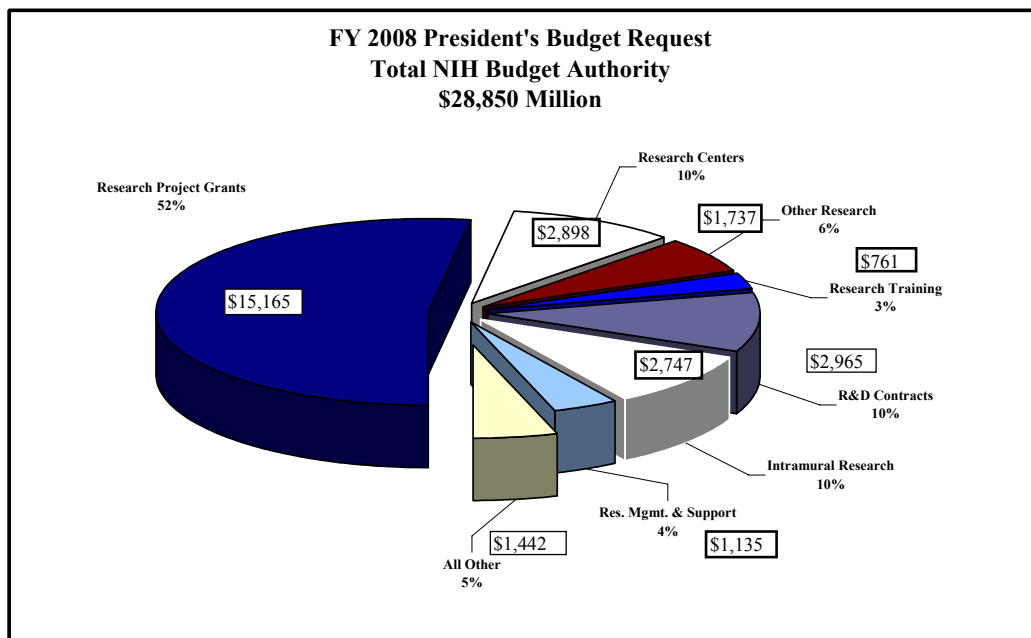
We will continue to support the Roadmap/Common Fund in FY 2008, while at a slightly lower level than originally planned in the previously published multi-year plan. This program

continues to serve as an incubator for new competitively peer reviewed projects and initiatives that can accelerate the pace of discovery across all NIH institutes and centers. Specific research initiatives can be supported by the Common Fund/Roadmap activities for a maximum of 10 years thus insuring a constant renewal of ideas and preserving the ability of the agency to more rapidly seize emerging opportunities. Research requires risk and this program is designed to support high-risk/ high impact trans-NIH research in emerging areas of science or public health priorities. It enhances the ability of our grantees to innovate by providing them with wider access to more powerful research methodologies and tools. These initiatives are catalytic; they foster synergies and lead to internal transforming change, a feature of successful organizations.

As buildings age and health and safety guidelines change, facilities once considered “modern” become outmoded, non-compliant, and in some cases hazardous. There is a continuing need to upgrade many of the older NIH facilities for safe use so that valuable research capacity, laboratories, animal facilities, and research activity can be continued efficiently and effectively without disruption. To ensure an appropriate level of NIH stewardship of our extensive buildings and facilities, in FY 2008 we will take the steps necessary to extend the life of some of our current facilities, provide necessary improvements to meet staffing and regulatory requirements, plus increase our overall building condition index ratings.

The budget request supports the President’s commitment to the Global Fund for HIV/AIDS, Tuberculosis and Malaria with \$300 million in FY 2008.

The FY 2008 budget continues to support studies of the Genes, Environment and Health Initiative to accelerate discovery of the major genetic factors for diseases that have a substantial public health impact.



## **Mechanism Discussion**

The workhorse of basic biomedical research is the Research Project Grant (RPG), and the funding of basic biomedical research through RPGs, thereby ensuring an adequate number of new researchers with new ideas, remains a high priority. The FY 2008 President's Budget supports 10,188 competing RPGs (one of the highest numbers ever), for \$3.6 billion, an increase of 566 competing RPGs over the FY 2007 Estimate and 1,060 more than the 2006 actual level. No inflationary increases are provided for direct, recurring costs in non-competing RPG's in the FY 2008 President's Budget, but where the NIH has committed to a programmatic increase in an award, such increases are provided. The average cost of competing RPGs remains at the FY 2007 Estimate level. The apparent decrease of 3 percent in average cost is due to the cycling of extremely large AIDS clinical trial grants and the NIDA "Monitoring the Future" studies into noncompeting status in FY 2008.

The FY 2008 President's Budget increases support for Research Centers by \$35 million, or 1 percent. This is largely a result of Roadmap/Common Fund programs.

Other Research programs increase by a total of \$24 million or 1.4 percent over the FY 2007 Estimate. The Pathway to Independence Award program funded in Research Careers will increase by \$16 million, for a total of \$31 million, to continue the investment begun in FY 2007 for this new program. The Other Other Research mechanism increases by +\$11 million, mainly due to Roadmap/Common Fund programs.

In order to achieve the NIH's research objectives, it is essential to ensure highly trained scientists are available to address the nation's biomedical, behavioral and clinical research needs. The FY 2008 President's Budget level maintains stipends at the FY 2007 Estimate levels and provides no increases for other components of the NRSA training programs. The President's Budget supports 17,520 Full-Time Training Positions (FTTPs), a decrease of 56 FTTPs from the FY 2007 Estimate of 17,576 FTTPs. Training funds decrease by -\$3 million or -0.5 percent, although training initiatives in the Roadmap/Common Fund increase in FY 2008.

Research and Development (R&D) contracts increase by \$242 million or 9 percent compared to the FY 2007 Estimate. It reflects the increase of \$201 million, for a total of \$300 million of funds to be transferred to the Global Fund for HIV/AIDS, Tuberculosis and Malaria, plus it reflects increased support for HHS programs supported through the program evaluation set-aside.

Intramural Research decreases by -\$18 million or -0.6 percent below the FY 2007 Estimate. The Research Management and Support mechanism increases by \$10 million or 1 percent above the FY 2007 Estimate.

Consistent with the FY 2007 President's Budget request, no funds are provided for non-biodefense extramural construction. Biodefense extramural construction funds were redirected to higher-priority research activities.

In order to sustain our Intramural Research enterprise, we must also exercise responsible stewardship and protect the physical infrastructure needed for the conduct of biomedical research. In FY 2008, \$144 million is requested for the B&F Program. Of this amount, \$8 million would be provided to the National Cancer Institute (NCI) for repairs and improvements at the NCI-Frederick campus. The \$136 million in the B&F appropriation will optimize support to the NIH mission by investing \$22 million in a balance of key projects: Positron Electronic Transmissions (PET) and Radio-Chemistry Laboratory (\$7 million); Fit-Out of the NIMH Molecular Imaging Laboratory (\$2 million); and to provide Continuous and Backup Power for the NIH Data Center (\$13 million).

The remaining \$114 million allows NIH to conduct concept development studies and fund ongoing programs for essential safety and regulatory compliance, as well as Repairs and Improvements (R&I) to maintain valuable research capacity and ensure the safety of NIH facilities and their occupants. At this level, NIH will begin to reduce the backlog of R&I projects and maintain our condition index (the cost of repair to replacement value) at a level that will provide responsible stewardship of NIH's real property assets.

The Office of the Director (OD) increases by \$38 million, or 8 percent, for a total of \$517 million. Of this amount, \$122 million is reserved for the OD contribution to the NIH Roadmap /Common Fund, an increase of +\$39 million over the FY 2007 Estimate.

## NATIONAL INSTITUTES OF HEALTH

## Summary of Appropriations

(Dollars in millions)

Appropriation	FY 2006 Budget Authority 1/	FY 2007 Estimate 1/ 2/	FY 2008 Estimate 1/	2008/2007
	Includes AIDS	Includes AIDS	Includes AIDS	\$ Change
NCI	4,795	4,791	4,782	-9
NHLBI	2,916	2,919	2,925	7
NIDCR	389	389	390	1
NIDDK 2/	1,853	1,854	1,858	4
NINDS	1,533	1,534	1,537	3
NIAID 3/	4,379	4,382	4,592	210
NIGMS	1,934	1,935	1,941	6
NICHHD	1,264	1,264	1,265	1
NEI	666	666	668	2
NIHHS	636	641	637	-3
NIA	1,045	1,046	1,047	1
NIAMS	507	508	508	0
NIDCD	393	393	394	0
NIMH	1,402	1,403	1,405	3
NIDA	999	999	1,000	1
NIAAA	435	436	437	1
NINR	137	137	138	1
NHGRI	486	486	484	-2
NIBIB	298	298	300	2
NCRR	1,109	1,110	1,112	3
NCCAM	121	121	122	0
NCMHD	195	195	194	-1
FIC	66	66	67	0
NLM	314	314	313	-2
OD	478	479	517	38
B&F	86	171	136	-35
Type 1 Diabetes	-150	-150	-150	0
<b>Subtotal, Labor/HHS</b>	<b>28,287</b>	<b>28,389</b>	<b>28,621</b>	<b>233</b>
Interior Approp. for Superfund Res.	79	79	78	-1
<b>Total, NIH Discretionary B.A.</b>	<b>28,366</b>	<b>28,468</b>	<b>28,700</b>	<b>232</b>
Type 1 Diabetes	150	150	150	0
<b>Total, NIH Budget Authority</b>	<b>28,516</b>	<b>28,618</b>	<b>28,850</b>	<b>232</b>
NLM Program Evaluation	8	8	8	0
<b>Total, Prog. Level</b>	<b>28,524</b>	<b>28,626</b>	<b>28,858</b>	<b>232</b>

Totals may not add due to rounding

1/ Includes comparable program transfers

2/ Includes funds for the Type 1 Diabetes Initiative.

3/ Includes funds to be transferred to the Global Fund for HIV/AIDS, Malaria, and Tuberculosis.

**NATIONAL INSTITUTES OF HEALTH**  
**Budget Mechanism - Total**  
(Dollars in millions)

MECHANISM	FY 2006 Actual 1/		FY 2007 Estimate		FY 2008 Estimate		Change	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount
Research Grants:								
<u>Research Projects:</u>								
Noncompeting	27,366	\$11,070	26,668	\$10,897	26,098	\$10,793	-570	-\$104
Administrative supplements	(1,678)	284	(1,435)	172	(1,582)	200	(147)	28
Competing	9,129	3,362	9,622	3,489	10,188	3,569	566	80
Subtotal, RPGs	36,495	14,716	36,290	14,558	36,286	14,562	-4	4
SBIR/STTR	1,822	617	1,799	608	1,777	603	-22	-5
Subtotal, RPGs	38,317	15,333	38,089	15,166	38,063	15,165	-26	-1
<u>Research Centers:</u>								
Specialized/comprehensive	1,190	2,144	1,104	2,174	1,094	2,183	-10	9
Clinical research	93	348	94	380	91	413	-3	33
Biotechnology	103	135	113	134	114	131	1	-3
Comparative medicine	51	123	49	122	49	119	0	-3
Research Centers in Minority Institutions	28	54	28	53	28	52	0	-1
Subtotal, Centers	1,465	2,804	1,388	2,863	1,376	2,898	-12	35
<u>Other Research:</u>								
Research careers	4,192	645	4,374	683	4,500	696	126	13
Cancer education	99	35	102	35	103	36	1	1
Cooperative clinical research	353	345	368	349	364	350	-4	1
Biomedical research support	140	65	139	64	139	63	0	-1
Minority biomedical research support	155	115	149	114	158	113	9	-1
Other	1,685	465	1,715	468	1,677	479	-38	11
Subtotal, Other Research	6,624	1,670	6,847	1,713	6,941	1,737	94	24
Total Research Grants	46,406	19,807	46,324	19,742	46,380	19,800	56	58
<u>Ruth L. Kirschstein Training Awards:</u>								
Individual awards	2,976	123	3,030	126	3,027	126	-3	0
Institutional awards	14,349	626	14,546	638	14,493	635	-53	-3
Total, Training	17,325	749	17,576	764	17,520	761	-56	-3
Research & development contracts (SBIR/STTR)	3,423 (92)	2,667 (24)	3,503 (110)	2,722 (30)	3,537 (110)	2,965 (30)	34 (0)	243 (0)
Intramural research		2,772		2,765		2,747		-18
Research management and support		1,109		1,125		1,135		10
Cancer prevention & control		506		510		515		5
Extramural Construction		30		25		0		-25
								0
Library of Medicine (Appropriation)		311 (314)		311 (314)		308 (313)		-3 (-1)
Office of the Director (Appropriation)		393 (478)		396 (479)		396 (517)		0 (38)
Buildings and Facilities 2/ (Appropriation)		93 (85)		178 (171)		144 (136)		-34 (-35)
NIH Roadmap for Medical Research* Type 1 Diabetes 3/		(333) -150		(414) -150		(486) -150		(72) 0
<b>Subtotal, Labor/HHS Budget Authority</b>		<b>28,287</b>		<b>28,389</b>		<b>28,621</b>		<b>233</b>
Interior Appropriation for Superfund Res.		79		79		78		-1
<b>Total, NIH Discretionary B.A.</b>		<b>28,366</b>		<b>28,468</b>		<b>28,700</b>		<b>232</b>
Type 1 Diabetes 3/		150		150		150		0
<b>Total, NIH Budget Authority</b>		<b>28,516</b>		<b>28,618</b>		<b>28,850</b>		<b>232</b>
NLM Program Evaluation		8		8		8		0
<b>Total, Program Level</b>		<b>28,524</b>		<b>28,626</b>		<b>28,858</b>		<b>232</b>

**May not add due to rounding**

\*Included in above mechanisms. Roadmap contributions from the NLM and OD are reflected in the mechanisms of award.

1/ Budget Authority 2006 total includes mechanism distribution of NCI breast cancer stamp funds of \$6,896.

2/ Includes the B&amp;F appropriation plus the following included in NCI -- FY 06: \$7.9M; FY 07: \$7.9M; FY 08: \$7.8M.

3/ Included in NIDDK -- FY 06: \$150M; FY 07: \$150M; FY 08: \$150M for Type I Diabetes Initiative.

**Numbers of grants identified in FY 2007 and FY 2008 are estimates, and WILL change as applications are received and selected for funding.**