

DEPARTMENT OF HEALTH AND HUMAN SERVICES

NATIONAL INSTITUTES OF HEALTH

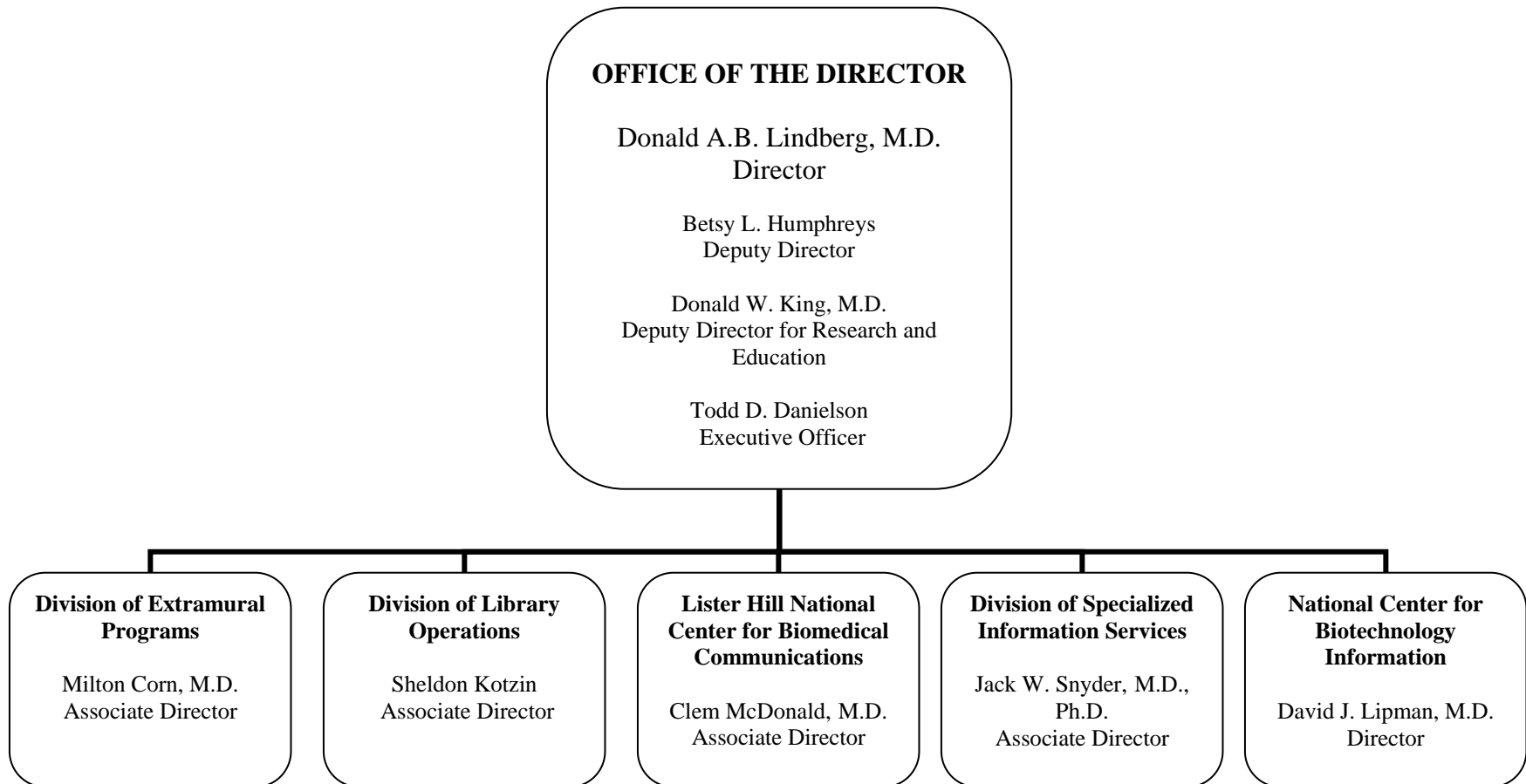
National Library of Medicine

<u>FY 2008 Budget</u>	<u>Page No.</u>
Organization chart.....	2
Appropriation language.....	3
Amounts available for obligation .....	4
Budget mechanism table.....	5
Budget authority by program.....	6
Major Changes in Budget Request.....	7
Summary of changes.....	8
Budget Graphs .....	10
Justification narrative.....	11
Budget authority by object.....	18
Salaries and expenses.....	19
Authorizing legislation.....	20
Appropriations history.....	21
Detail of full-time equivalent employment (FTE).....	22
Detail of positions.....	23
New positions requested.....	24

**NATIONAL INSTITUTES OF HEALTH**

**NATIONAL LIBRARY OF MEDICINE**

**ORGANIZATION STRUCTURE**



## **FY 2008 Proposed Appropriation Language**

### **NATIONAL INSTITUTES OF HEALTH**

#### National Library of Medicine

*For carrying out section 301 and title IV of the Public Health Service Act with respect to health information communications, \$312,562,000 of which \$4,000,000 shall be available until expended for improvement of information systems: Provided, that in fiscal year 2008, the Library may enter into personal services contracts for the provision of services in facilities owned, operated, or constructed under the jurisdiction of the National Institutes of Health: Provided further, that in addition to amounts provided herein, \$8,200,000 shall be available from amounts available under section 241 of the Public Health Service Act to carry out National Information Center on Health Services Research and health Care Technology and related health services.*

#### **Supplementary Exhibit**

### **Comparison of Proposed FY 2008 Appropriation Language to Most Recently Enacted Full-Year Appropriations**

### **NATIONAL INSTITUTES OF HEALTH**

#### National Library of Medicine

For carrying out section 301 and title IV of the Public Health Service Act with respect to health information communications, \$312,562,000 of which \$4,000,000 shall be available until expended for improvement of information systems: Provided, that in fiscal year 2008, the Library may enter into personal services contracts for the provision of services in facilities owned, operated, or constructed under the jurisdiction of the National Institutes of Health: Provided further, that in addition to amounts provided herein, \$8,200,000 shall be available from amounts available under section 241 of the Public Health Service Act to carry out National Information Center on Health Services Research and health Care Technology and related health services.

**National Institutes of Health  
National Library of Medicine  
Amounts Available for Obligation 1/**

Source of Funding	FY 2006 Actual	FY 2007 Continuing Resolution	FY 2008 Estimate
Appropriation	\$318,091,000	\$314,911,000	\$312,562,000
Enacted Rescissions	-3,181,000	0	0
Subtotal, Adjusted Appropriation	314,910,000	314,911,000	312,562,000
Real Transfer under Roadmap Authority	-2,814,000		
Real Transfer under Secretary's One-percent transfer authority	-216,000		
Comparative transfer from OD for NIH Roadmap	2,814,000		
Comparative Transfer to NIBIB	-92,000	-94,000	
Comparative transfer to OD	-41,000	-43,000	
Comparative Transfers to the Office of the Assistant Secretary for Admin. And Mgmt. and to the Office of the Assistant Secretary for Public Affairs	-4,000	-4,000	
Comparative Transfer to DHHS for PHS Historian	-480,000	-480,000	
Subtotal, adjusted budget authority	314,077,000	314,290,000	312,562,000
Unobligated Balance, start of year	1,000	1,000	0
Unobligated Balance, end of year	0	-1,000	0
Subtotal, adjusted budget authority	314,078,000	314,290,000	312,562,000
Unobligated balance lapsing	-159,000	0	0
Total obligations	313,919,000	314,290,000	312,562,000

1/ Excludes the following amounts for reimbursable activities carried out by this account:  
FY 2006 - \$17,811,857    FY 2007 - \$18,478,000    FY 2008 - \$18,676,000

**NATIONAL INSTITUTES OF HEALTH**

National Library of Medicine

Budget Mechanism - Total

(Dollars in Thousands)

MECHANISM	FY 2006		FY 2007		FY 2008		Change	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount
Grants: <u>1/</u>								
Noncompeting	129	\$43,296	129	\$43,296	125	\$43,316	-4	\$20
Competing	61	12,044	61	12,044	62	12,227	1	183
SBIR/STTR	3	784	3	784	5	778	2	-6
Subtotal, Grants	193	56,124	193	56,124	192	56,321	-1	197
Contracts:								
Noncompeting	0	0	8	12,701	8	12,532	0	-169
Competing	13	13,123	5	422	4	417	-1	-5
Subtotal, Contracts	13	13,123	13	13,123	12	12,949	-1	-174
<b>Total, Extramural</b>	<b>206</b>	<b>69,247</b>	<b>206</b>	<b>69,247</b>	<b>204</b>	<b>69,270</b>	<b>-2</b>	<b>23</b>
Intramural Programs:	<u>FTEs</u>		<u>FTEs</u>		<u>FTEs</u>			
Library Operations	322	85,594	322	85,594	322	86,928	0	1,334
Lister Hill Center	68	56,892	68	56,890	68	52,417	0	-4,473
Biotechnology Center	155	73,537	161	73,751	170	73,751	9	0
Specialized Information	35	14,186	35	14,186	35	14,124	0	-62
<b>Total, Intramural</b>	<b>580</b>	<b>230,209</b>	<b>586</b>	<b>230,421</b>	<b>595</b>	<b>227,220</b>	<b>9</b>	<b>-3,201</b>
Research management and support	76	11,807	76	11,808	76	11,925	0	117
NIH Roadmap for Medical Research		2,814		2,814		4,147		1,333
<b>Total, NLM</b>	<b>656</b>	<b>314,077</b>	<b>662</b>	<b>314,290</b>	<b>671</b>	<b>312,562</b>	<b>9</b>	<b>-1,728</b>

1/ Includes all grants

Includes FTEs which are reimbursed from the NIH Roadmap for Medical Research

NATIONAL INSTITUTES OF HEALTH

National Library of Medicine  
Budget Authority by Program  
 (dollars in thousands)

	FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		Change	
	FTEs	Amount	FTEs	Amount	FTEs	Amount	FTEs	Amount	FTEs	Amount	FTEs	Amount
<b>Extramural Research</b>												
Detail:												
Medical Library Assistance		\$39,072		\$39,247		\$38,514		\$38,514		\$38,003		-511
PHS 301		29,797		29,425		29,949		29,949		30,489		540
SBIR/STTR		728		728		784		784		778		-6
<b>Subtotal, Extramural <sup>1/</sup></b>		69,597		69,400		69,247		69,247		69,270		23
<b>Intramural Programs:</b>												
Detail:												
Library Operations	335	81,695	330	84,934	322	85,594	322	85,594	322	86,928	0	1,334
Lister Hill Center	78	60,674	72	61,106	68	56,892	68	56,890	68	52,417	0	-4,473
Biotechnology Center	143	71,073	148	72,273	155	73,537	161	73,751	170	73,751	9	0
Specialized Information	34	14,156	31	14,550	35	14,186	35	14,186	35	14,124	0	-62
<b>Subtotal, Intramural</b>	590	227,598	581	232,863	580	230,209	586	230,421	595	227,220	9	-3,201
<b>Res. management &amp; support</b>	76	11,281	80	10,891	76	11,807	76	11,808	76	11,925	0	117
<b>NIH Roadmap for Medical Research</b>		0		1,992		2,814		2,814		4,147		1,333
<b>TOTAL</b>	666	308,476	661	315,146	656	314,077	662	314,290	671	312,562	9	-1,728

<sup>1/</sup> Includes all grants

Includes FTEs which are reimbursed from the NIH Roadmap for Medical Research

## **Major Changes in the Fiscal Year 2008 Budget Request**

Major changes by budget mechanism and/or budget activity detail are briefly described below. Note that there may be overlap between budget mechanism and activity detail and these highlights will not sum to the total change for the FY 2008 budget request for NLM, which is \$2.228 million less than the FY 2007 Estimate, for a total of \$312.562 million.

Research Careers (+\$.450 million; total \$1.475 million): NLM will support the Pathway to Independence program by funding an additional 5 awards in FY 2008.

Research Project Grants (+\$.500 million; total \$15.750 million): NLM will support 2 additional awards in FY 2008.

NIH Roadmap for Biomedical Research (+\$1.333 million; total \$4.147 million): NLM will continue its support of the NIH Roadmap, an incubator for new ideas and initiatives that will accelerate the pace of discovery, in FY 2008.

Developing Advanced Information Systems, Standards and Research Tools (-\$3.140 million; total \$126.168 million): NLM will initiate fewer new informatics research and development projects. NLM will also work to identify areas of potential savings from existing projects which will allow us to achieve our program goals and accomplishments as outlined in the Justification Narrative for this activity.

**NATIONAL INSTITUTES OF HEALTH**  
**National Library of Medicine**  
**Summary of Changes**

FY 2007 Continuing Resolution		\$314,290,000		
FY 2008 Estimated Budget Authority		312,562,000		
Net change		-1,728,000		
CHANGES	FY 2007			
	Continuing Resolution		Change from Base	
	Budget	Budget	FTEs	Authority
	FTEs	Authority	FTEs	Authority
<b>A. Built-in:</b>				
1. Intramural research:				
a. Annualization of January				
2007 pay increase		\$62,766,000		\$414,000
b. January 2008 pay increase		62,766,000		1,423,000
c. Two extra days of pay		62,766,000		483,000
d. Payment for centrally furnished services		11,444,000		114,000
e. Increased cost of laboratory supplies, materials, and other expenses		0		0
		162,214,000		2,253,084
Subtotal				4,687,084
2. Research Management and Support:				
a. Annualization of January				
2007 pay increase		\$8,559,000		\$57,000
b. January 2008 pay increase		8,559,000		194,000
c. Two extra days of pay		8,559,000		66,000
d. Payment for centrally furnished services		0		0
e. Increased cost of laboratory supplies, materials, and other expenses		0		0
		3,310,000		109,000
Subtotal				426,000
Subtotal, Built-in				5,113,084



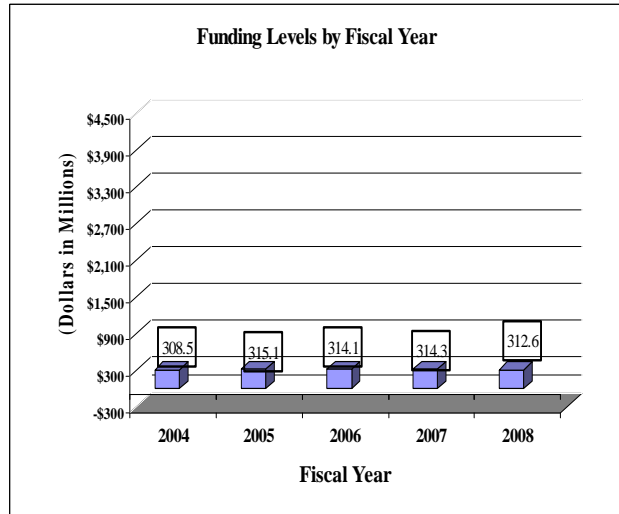
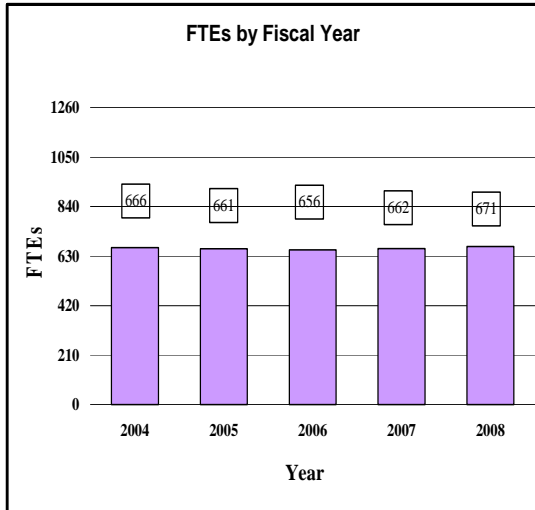
**NATIONAL INSTITUTES OF HEALTH  
National Library of Medicine**

**Summary of Changes--continued**

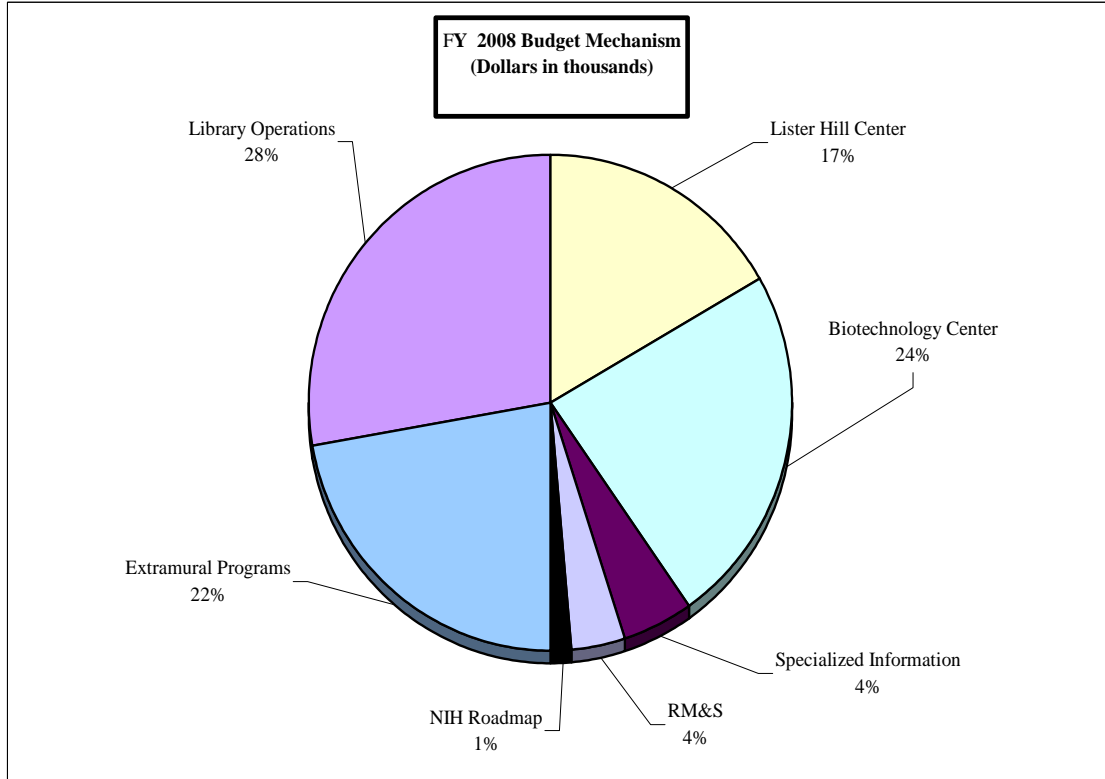
CHANGES	2007			
	Continuing Resolution		Change from Base	
	No.	Amount	No.	Amount
<b>B. Program:</b>				
1. Research project grants:				
a. Noncompeting	129	\$43,296,000	(4)	20,000
b. Competing	61	\$12,044,000	1	183,000
c. SBIR/STTR	3	784,000	2	-6,000
Total	193	56,124,000	(1)	197,000
2. Research centers	0	0	0	0
3. Other research	0	0	0	0
4. Research training	0	0	0	0
5. Research and development contracts	13	13,123,000	(1)	-174,000
Subtotal, extramural				23,000
6. Intramural research	<u>FTEs</u> 586	230,421,000	<u>FTEs</u> 9	-7,771,201
7. Research management and support	76	11,808,000	0	-425,883
8. Cancer control and prevention	0	0	0	0
9. Construction		0		0
10. Buildings and Facilities		0		0
11. NIH Roadmap for Medical Research	0	2,814,000	0	1,333,000
Subtotal, program		314,290,000		-6,841,084
Total changes	662		9	-1,728,000

## Fiscal Year 2008 Budget Graphs

### History of Budget Authority and FTEs:



### Distribution by Mechanism:



**Justification  
National Library of Medicine**

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

Budget Authority:

FY 2006 Actual		FY 2007 Estimate		FY 2008 Estimate		Increase or Decrease	
<u>FTE</u>	<u>BA</u>	<u>FTE</u>	<u>BA</u>	<u>FTE</u>	<u>BA</u>	<u>FTE</u>	<u>BA</u>
656	\$314,910,000	662	\$314,290,000	671	\$312,562,000	+9	-\$1,728,000

This document provides justification for the Fiscal Year 2008 activities of the National Library of Medicine (NLM), including HIV/AIDS activities. Details of the FY 2008 HIV/AIDS activities are in the “Office of AIDS Research (OAR) section of the Overview. Details on the NIH Roadmap for Medical Research are located in the Overview, Volume One.

**DIRECTOR’S OVERVIEW**

The National Library of Medicine is the world’s largest library of the health sciences and the developer of electronic information services that deliver trillions of bytes of data to millions of users every day. The Library’s services play a pivotal role in translating research into practice. Begun in 1836, the NLM applies its resources broadly to the advancement of medicine and the public’s health by:

- acquiring, organizing, and preserving the world’s scholarly biomedical literature;
- equalizing access to biomedical and health information across the country in partnership with the 5,800-member National Network of Libraries of Medicine;
- serving, via its National Center for Biotechnology Information, as an international focal point for building, curating, and providing sophisticated access to molecular biology and genomic data, including those from the Human Genome project and NIH Roadmap initiatives;
- creating and providing sophisticated information services in toxicology and environmental health, health services research, and public health;
- conducting advanced research and development in computational biology and in knowledge representation, health information technology standards, information retrieval, natural language processing, decision support, and imaging; and
- through grants and contracts, supporting advanced biomedical informatics and health information technology research and training.

The Library has extensive Web-based information resources for the scientific community, health professionals, and the general public. Information about and links to all these services are available at [www.nlm.nih.gov](http://www.nlm.nih.gov).

Rapid change is the hallmark of the contemporary society in which NLM carries out its mission. From iPods to YouTube to Wikipedia—who knows what “next newest” thing will be? In fact, the NLM has just engaged more than 100 outside experts and public representatives from its diverse constituent groups in an ambitious round of long range planning that attempted to identify the new scientific, medical, technical, social, and economic developments that may impact how the Library carries out its mission. If NLM is to maintain its role as a trusted information resource and a positive force for the translation of biomedical science into improved clinical care and public health, it must weigh these influences and turn them to maximum benefit for scientists, health professionals, and the public.

The Library’s recently released long range plan for 2006–2016 presents a vision that expands on the NLM’s already important role in supporting biomedical science (such as with genomic information), health care delivery (for example, in the development of electronic health records), reduction of health disparities and health illiteracy, and public safety (such as rapid information in the face of disasters or epidemics).

The plan has four broad goals. The first is an updated formulation of what the National Library of Medicine has been striving for more than 150 years: to connect people in a seamless, uninterrupted manner to the expanding body of biomedical data, medical knowledge, and health information. Ensuring access during disasters and emergencies will require a new focus on disaster information management research. The second goal is to provide trusted information services that specifically promote health literacy and reduce health disparities. The third goal is to integrate disparate sources of biomedical, clinical, and public health information to actually promote scientific discovery and to speed the translation of research into practice. The fourth goal is to ensure that there is a strong workforce of experts to conduct the biomedical informatics research and build the innovative information services necessary to reach the first three goals.

In 1986, the Library published a predecessor 20-year plan that has proved to be an immense help in setting priorities and allocating resources. The 1986 plan led directly to the establishment of the National Center for Biotechnology Information at NLM in 1988. Supplemental reports in the years following addressed specific topical areas, such as outreach to underserved health professionals and electronic imaging, that required a fresh look due to dramatic changes in the social and technological landscape in which the NLM operates and also led to major new programs, including the innovative Visible Human Project.

Likewise, the new plan will provide a foundation for program decisions as NLM focuses on the rapidly growing corpus of genomic measurements and data; the increasing appetite of patients, families, and the public for access to improved understanding of information relevant to personal health and health care; and effective integration of libraries into community disaster management activities. Careful planning and visionary thinking are critical if the Library is to prepare wisely for the future and to justify the support of the American public.

## **FY 2008 Justification by Activity Detail**

**Overall Budget Policy:** NLM's highest priorities are maintaining the quality and integrity of its national library and information services. These activities are the focus of NLM's intramural programs and account for three fourths of NLM's budgetary resources. The work includes both building and maintaining the collection of biomedical literature and building and providing access to specialized information services in areas including genomic research information, toxicology, environmental, consumer health for health professionals and consumers. In the extramural program, NLM will continue to provide access to biomedical and health information in partnership with the 5800-member National Network of Libraries of Medicine and support its broad grant programs including a substantial investment in informatics research and training.

### **Intramural Activity Details**

#### **Delivering Reliable, High Quality Biomedical and Health Information Services:**

The core of the National Library of Medicine is its expanding collection of eight million biomedical books, journals, and other materials. The Library Operations staff acquires the materials, produces authoritative electronic databases that describe their contents, preserves them, and makes them available, both onsite and through electronic delivery mechanisms across the country and around the world. NLM also has an outstanding historical collection of rare books, manuscripts, and images. These collections, the extensive and sophisticated information processing methods introduced by the Library form the base of NLM's current programs. They are critical to the future services envisioned in the Long Range Plan. Redundant high speed telecommunications, advanced computer security measures, and remote backup systems ensure uninterrupted access to NLM's essential services.

**Budget Policy:** The FY 2008 budget estimate is \$97,490,000, an increase of \$415,000 or .4 percent over the FY 2007 estimate. In FY 2008, the Library will concentrate on maintaining its current high level of services and, where possible, enhance and expand them. Medline/PubMed is the most heavily used of NLM's information services. It is estimated that there will be more than one *billion* searches of the 16 million records for journal articles in Medline/PubMed by professional and public users around the world in 2007. Acquiring and indexing more than 600,000 articles is just part of what it will take to keep this database up to date; NLM has also begun a "discovery" initiative to introduce changes to the system that will make it easier for users to find the information they need. It was the heavy use of Medline/PubMed by the general public that prompted the Library, in 1998, to create MedlinePlus. MedlinePlus contains a great range of information written and formatted for consumers. Keeping it current with new information (in both English and Spanish) from NIH and other reliable sources, and adding features to enhance its usefulness, are high priorities for NLM in FY 2008. The NLM has other databases heavily used by the public that will require maintenance and expansion: ClinicalTrials.gov, NIHSeniorHealth.gov, Household Products Database, Genetics Home Reference, and a series of databases dealing with toxicology and the environment.

**Promoting Public Awareness and Access to Information:** With all these unique information resources, the Library must engage in outreach to let people know what is available—not only to biomedical researchers, health professionals, and librarians, but also to patients, families, and

other members of the public—including the Spanish-speaking public. To improve access to high quality health information, NLM makes heavy use of formal partnerships, such as the National Network of Libraries of Medicine (see box), Partners in Information Access for the Public Health Workforce, and Historically Black Colleges and Universities, and informal partnerships, such as the Information Rx program to promote MedlinePlus usage by encouraging physicians to write “information prescriptions” for their patients.

The Friends of the National Library of Medicine are also a key resource in increasing visibility and use of NLM services. The Friends have recently partnered with the Library to develop a new magazine, *NIH MedlinePlus*, sent to physicians' offices so patients in the waiting room can browse the latest health information from the NIH. Congress has encouraged NLM in this endeavor and the magazine was introduced at an event in the U.S. Capitol in September 2006. In addition to increasing awareness and use, an important objective in NLM's outreach activities is to learn from users of our services whether they are finding the information they need and how existing services can be expanded and improved to serve them better.

**Budget Policy:** The FY 2008 budget estimate is \$17,388,000 the same as the FY 2007 estimate. In FY 2008, NLM will continue its outreach programs with a special emphasis on those aimed at underserved and minority populations. As recommended by the Long Range Plan, NLM will develop and test innovative outreach methods, including infrastructure improvements (for example, PDAs, intelligent agents, and network techniques) to “enable ubiquitous health information access in homes, schools, public libraries, and work places”. Also as recommended in the plan, the Library will continue to use its major historical exhibitions as a means for improving science and health literacy and promoting interest in biomedical careers, as well as increasing awareness and use of NLM information services.

**Portrait of a Program: National Network of Libraries of Medicine**

FY 2007 Level: \$12,701,000

FY 2008 Level: \$12,532,000

Change: -\$169,000

The 5,800 member institutions of the National Network of Libraries of Medicine are valued partners in helping to ensure that health information—including NLM's many services—is available to scientists, practitioners, and the public. The Network comprises eight Regional Medical Libraries, 120 “resource libraries” primarily at schools of the health sciences, hospital libraries, and an increasing number of public libraries and community-based organizations that serve as health information portals. Together they form an efficient way to ensure that published research results are easily and efficiently accessible by scientists, health professionals, and the public. Member institutions staff exhibits at public and professional meetings, conduct a variety of orientation and training courses, and develop partnerships with community organizations to improve access to health information for underserved populations. The Network is a key player in the MedlinePlus “Go Local” service begun in 2003, when NLM responded to the expressed need of users for information about services in their community as an adjunct to the nationally applicable health information in MedlinePlus. To create and maintain “Go Local” NLM is partnering with medical and other libraries in the Network that have access to lists of local services such as hospitals, clinics, support groups, and community-based organizations. There is Go Local coverage for more than one quarter of the U.S. population and continuing to expand this reach is an important goal for the Library in FY 2008. Savings will be achieved as part of the ongoing review and evaluation of the program's operations and by identifying opportunities for collaboration between the member institutions.

**Developing Advanced Information Systems, Standards, and Research Tools:** The National Library of Medicine's heavily used information services are a result of a long tradition of research and development that results in the creation of advanced information systems. Today, the Library has two vibrant organizations that conduct advanced research and development on different aspects of biomedical communication—the Lister Hill National Center for Biomedical Communications (LHC) and the National Center for Biotechnology Information (NCBI). The LHC, established by Congress in 1968, conducts and supports research in such areas as the dissemination, processing, and use of high quality imagery, medical language processing, high-speed access to biomedical information, the development and dissemination of health information technology standards, and advanced technology for emergency and disaster management. The NCBI, created by the Congress in 1988, conducts research and development on the representation, storage, integration, retrieval, and display of biological data, literature, and knowledge; provides an integrated, one-stop, genomic information infrastructure for biomedical researchers at NIH and around the world; and uses the databases and systems it creates in advanced computational biology research.

**Budget Policy:** The FY 2008 budget estimate is \$127,501,000, a decrease of \$3,761,000 or a 3.9 percent decrease from the FY 2007 estimate. In accordance with the Long Range Plan, NLM's research divisions will engage in critical research and development projects that are important to today's scientific community and that will have even greater influence in the future. In addition to NCBI's activities (see box), NLM intramural researchers will continue to pursue disaster management information research in partnership with the NIH Clinical Center, the Department of Defense, and Suburban Hospital; to develop advanced imaging tools for cancer diagnosis in cooperation with the National Cancer Institute; and to work with NIH-funded Clinical and Translational Research Centers on health data standardization issues. Other major intramural research priorities will be: digital publications - including automated indexing, image analysis, digital preservation, and special issues associated with interactive publications; "Next Generation" electronic health records - including clinical imaging tools, health data standards, extraction of actionable information from clinical text, research use of large aggregations of clinical data, and the Unified Medical Language system; and advanced representations of biomedical knowledge that can interact effectively with electronic health records - including representation of the summarized results of clinical trials and structured drug and test information that facilitates decision support. The Library will continue to serve as an HHS coordinating center for standard clinical vocabularies and to support, develop, or license for US-wide use key clinical vocabularies, including SNOMED CT<sup>®</sup>. NLM will initiate fewer new informatics research and development projects. NLM will also work to identify areas of potential savings from existing projects. Additionally, the Office of the Public Health Service Historian is being transferred to the Office of the Secretary.

Portrait of a Program: National Center for Biotechnology Information (NCBI)

FY 2007 Level: \$73,751,000

FY 2008 Level: \$73,751,000

Change: \$0

The creation of the NCBI in 1988 has proved to be a boon to the global scientific community. The Center, whose Web sites are accessed several million times a day, is today at the hub of international trafficking in genomic information. GenBank (DNA sequence data) and PubMed/MEDLINE (records for 16 million scientific articles) are the most widely known of its services, but the NCBI provides a wide array of genomic and sequence data and is a valued collaborator of virtually every Institute and Center on the NIH campus. With the NIAID, for example, it has created an Influenza Virus Resource that links researchers working on vaccines to genomic data about the influenza virus. NLM participates actively in the NIH Roadmap Initiatives, and the NCBI filled a critical need associated with the Molecular Libraries component of the Roadmap by creating "PubChem," a rapidly growing depository of 12 million records for what are called "small molecules" that are crucial as research tools and in drug development. The NCBI also has a prominent role in the important new Genome Wide Association Studies project, a major NIH-wide initiative directed at understanding the genetic factors underlying human disease. An important part of this project is the just announced dbGaP, a database of Genome Wide Association studies. This database, which initially contains information from the National Eye Institute and the National Institute of Neurological Disorders and Stroke, will be NIH's public repository for linking up genotype data with phenotype information in order to identify the genetic factors that influence health, disease, and response to treatment. The NCBI has also created the PubMed Central database, an archive of full text journal articles that is a central element in the NIH Public Access initiative to make accessible published NIH funded research and also in the public access initiatives of other major international biomedical research funders. The journal archiving format developed for PubMed Central has become a de facto international standard, endorsed by the Library of Congress and the British Library.

## **Extramural Activity Details**

**Supporting Biomedical Informatics/Health Information Technology:** The NLM has for more than 40 years had a program of grant assistance to improve medical library resources, conduct specialized research and development in informatics and biocommunications, and train health information personnel. The Library's grant programs, authorized by the NLM specific Medical Library Assistance Act and the NIH-wide Section 301 of the PHS Act, have supported pioneering research and development in bioinformatics, artificial intelligence in medicine, clinical decision support, biomedical ontology, imaging, electronic medical records, regional health data exchange, health applications of advanced communications networks, automated biosurveillance, and emergency management systems. NLM grants also supported the first Internet connections for many health sciences libraries, community hospitals, local public health departments, and community organizations. Today, NLM supports a wide variety of communication-related activities: investigator-initiated research and development projects, resource grants to support institutional infrastructure, small business innovation and technology research grants, and a number of training and career development programs.

**Budget Policy:** The FY 2008 budget estimate is \$56,738,000, an increase of \$192,000 or .3 percent over the FY 2007 estimate. Many areas of informatics and biocommunication in which NLM grant programs were pioneers are now supported by a number of other NIH Institutes as



well as by the NIH Roadmap Initiative. As a consequence, in FY 2008, NLM is embarking on an innovative direction in which it is focusing its extramural budget on high-risk, high-payoff projects and on key areas of need in biomedical computing not covered by other grant programs. NLM also supports projects to improve health literacy through its extramural funding mechanisms. Projects to improve patient access to health information, increase understanding of literacy requirements in consumer health information, and encourage healthy behavior for prevention and for treatment are examples. NLM's Extramural Programs also has a role in the NIH Roadmap Initiative to fund National Centers for Biomedical Computing. This program is supporting a small number of Centers (currently seven) that will serve the needs for high-end computing and informatics of medical organizations and research groups around the country. It is seen as essential for applying the genomic sciences to clinical medicine. NLM is contributing funds for this program and the staff of NLM's Division of Extramural Programs are involved in its management. NLM is administering one Center, "Informatics Integrating the Bench and Bedside," based at Harvard's Brigham and Women's Hospital.

**Portrait of a Program: Support of Informatics Training**

FY 2007 Level: \$15,194,000

FY 2008 Level: \$15,498,000

Change: +\$304,000

Through its Extramural Programs Division, NLM remains the principal source of support nationally for research training in the field of biomedical informatics. Informatics requires knowledge of biology and medicine as well as of computer and information sciences, engineering, and human behavior. Support for informatics training is especially important as rapidly moving technology in health care and biomedical research requires investigators who understand biomedicine as well as fundamental problems of knowledge representation, decision support, translational research, and human-computer interface. Eighteen five-year institutional training grants from NLM support some 300 pre-doctoral, post-doctoral, and short-term trainees across the country. There is at the present time a special recruitment effort to increase diversity among the trainees.

**Research Management and Support**

NLM RMS activities provide administrative, budgetary, logistical, and scientific support for the NLM's basic library services, intramural research programs and the review, award and monitoring of research grants and training awards. RMS functions also include strategic planning, coordination, and evaluation of NLM's programs, regulatory compliance, international coordination and liaison with other Federal agencies, Congress, and the public. Included within this activity are: the Director and his immediate staff, the Office of Extramural Programs, the Office of Administrative Management, the Office of Health Information Programs Development, and the Office of Communications and Public Liaison.

**Budget Policy:** The FY 2008 budget estimate for RMS is \$9,298,000 million, an increase of \$92,000 or 1 percent from the FY 2007 estimate. The focus of these activities will continue to be the coordination of NLM's activities and policies and the development and administration of NLM's grant activities.

**NATIONAL INSTITUTES OF HEALTH  
National Library of Medicine**

**Budget Authority by Object**

	FY 2007 Continuing Resoluion	FY 2008 Estimate	Increase or Decrease
Total compensable workyears:			
Full-time employment	662	671	9
Full-time equivalent of overtime & holiday hours	3	3	0
Average ES salary	\$162,836	\$168,535	5,699
Average GM/GS grade	10.7	10.7	0
Average GM/GS salary	\$76,542	\$78,838	2,296
Average salary, grade established by act of July 1, 1944 (42 U.S.C. 207)	\$73,974	\$76,563	2,589
Average salary of ungraded positions	113,627	117,036	3,409
<b>OBJECT CLASSES</b>	<b>FY 2007 Continuing Resoluion</b>	<b>FY 2008 Estimate</b>	<b>Increase or Decrease</b>
Personnel Compensation:			
11.1 Full-Time Permanent	\$49,235,000	\$52,011,000	2,776,000
11.3 Other than Full-Time Permanent	5,011,000	5,220,000	209,000
11.5 Other Personnel Compensation	1,748,000	1,821,000	73,000
11.7 Military Personnel	0	0	0
11.8 Special Personnel Services Payments	1,263,000	1,316,000	53,000
<b>Total, Personnel Compensation</b>	<b>57,257,000</b>	<b>60,368,000</b>	<b>3,111,000</b>
12.0 Personnel Benefits	14,068,000	14,859,000	791,000
12.2 Military Personnel Benefits	0	0	0
13.0 Benefits for Former Personnel	0	0	0
<b>Subtotal, Pay Costs</b>	<b>71,325,000</b>	<b>75,227,000</b>	<b>3,902,000</b>
21.0 Travel & Transportation of Persons	1,300,000	1,100,000	-200,000
22.0 Transportation of Things	169,000	150,000	-19,000
23.1 Rental Payments to GSA	4,000	0	-4,000
23.2 Rental Payments to Others	50,000	50,000	0
23.3 Communications, Utilities & Miscellaneous Charges	1,700,000	1,800,000	100,000
24.0 Printing & Reproduction	200,000	175,000	-25,000
25.1 Consulting Services	44,306,000	42,591,000	-1,715,000
25.2 Other Services	44,847,000	42,500,000	-2,347,000
25.3 Purchase of Goods & Services from Government Accounts	48,772,000	49,200,000	428,000
25.4 Operation & Maintenance of Facilities	1,157,000	1,200,000	43,000
25.5 Research & Development Contracts	18,300,000	15,100,000	-3,200,000
25.6 Medical Care	0	0	0
25.7 Operation & Maintenance of Equipment	7,698,000	6,500,000	-1,198,000
25.8 Subsistence & Support of Persons	0	0	0
<b>25.0 Subtotal, Other Contractual Services</b>	<b>165,080,000</b>	<b>157,091,000</b>	<b>-7,989,000</b>
26.0 Supplies & Materials	2,100,000	2,100,000	0
31.0 Equipment	18,000,000	18,000,000	0
32.0 Land and Structures	0	0	0
33.0 Investments & Loans	0	0	0
41.0 Grants, Subsidies & Contributions	51,548,000	52,722,000	1,174,000
42.0 Insurance Claims & Indemnities	0	0	0
43.0 Interest & Dividends	0	0	0
44.0 Refunds	0	0	0
<b>Subtotal, Non-Pay Costs</b>	<b>240,151,000</b>	<b>233,188,000</b>	<b>-6,963,000</b>
<b>NIH Roadmap for Medical Research</b>	<b>2,814,000</b>	<b>4,147,000</b>	<b>1,333,000</b>
<b>Total Budget Authority by Object</b>	<b>314,290,000</b>	<b>312,562,000</b>	<b>-1,728,000</b>

Includes FTEs which are reimbursed from the NIH Roadmap for Medical Research

**NATIONAL INSTITUTES OF HEALTH  
National Library of Medicine**

**Salaries and Expenses**

OBJECT CLASSES	FY 2007 Continuing Resolution	FY 2008 Estimate	Increase or Decrease
<b>Personnel Compensation:</b>			
Full-Time Permanent (11.1)	\$49,235,000	\$52,011,000	2,776,000
Other Than Full-Time Permanent (11.3)	5,011,000	5,220,000	209,000
Other Personnel Compensation (11.5)	1,748,000	1,821,000	73,000
Military Personnel (11.7)	0	0	0
Special Personnel Services Payments (11.8)	1,263,000	1,316,000	53,000
<b>Total Personnel Compensation (11.9)</b>	<b>57,257,000</b>	<b>60,368,000</b>	<b>3,111,000</b>
Civilian Personnel Benefits (12.1)	14,068,000	14,859,000	791,000
Military Personnel Benefits (12.2)	0	0	0
Benefits to Former Personnel (13.0)	0	0	0
<b>Subtotal, Pay Costs</b>	<b>71,325,000</b>	<b>75,227,000</b>	<b>3,902,000</b>
Travel (21.0)	1,300,000	1,100,000	-200,000
Transportation of Things (22.0)	169,000	150,000	-19,000
Rental Payments to Others (23.2)	50,000	50,000	0
Communications, Utilities and Miscellaneous Charges (23.3)	1,700,000	1,800,000	100,000
Printing and Reproduction (24.0)	200,000	175,000	-25,000
<b>Other Contractual Services:</b>			
Advisory and Assistance Services (25.1)	44,306,000	42,591,000	-1,715,000
Other Services (25.2)	44,847,000	42,500,000	-2,347,000
Purchases from Govt. Accounts (25.3)	0	0	0
Operation & Maintenance of Facilities (25.4)	1,157,000	1,200,000	43,000
Operation & Maintenance of Equipment (25.7)	7,698,000	6,500,000	-1,198,000
Subsistence & Support of Persons (25.8)	0	0	0
<b>Subtotal Other Contractual Services</b>	<b>98,008,000</b>	<b>92,791,000</b>	<b>-5,217,000</b>
Supplies and Materials (26.0)	2,100,000	2,100,000	0
<b>Subtotal, Non-Pay Costs</b>	<b>103,527,000</b>	<b>98,166,000</b>	<b>-5,361,000</b>
<b>Total, Administrative Costs</b>	<b>174,852,000</b>	<b>173,393,000</b>	<b>-1,459,000</b>

**NATIONAL INSTITUTES OF HEALTH**  
**National Library of Medicine**

**Authorizing Legislation**

	PHS Act/ Other Citation	U.S. Code Citation	2007 Amount Authorized	Continuing Resolution	2008 Amount Authorized	FY 2008 Budget Estimate
Research and Investigation	Section 301	42§241	Indefinite		Indefinite	
National Library of Medicine	Section 41B	42§285b		\$314,290,000		\$312,562,000
National Library of Medicine	Section 402(a)	P.L.-109-482	Indefinite		Indefinite	
<b>Total, Budget Authority</b>					<b>314,290,000</b>	<b>312,562,000</b>

**NATIONAL INSTITUTES OF HEALTH  
National Library of Medicine**

**Appropriations History**

Fiscal Year	Budget Estimate to Congress	House Allowance	Senate Allowance	Appropriation <u>1/</u>
1999	170,738,000 <u>2/</u>	176,492,000	181,309,000	180,742,000
Rescission	0	0	0	(120,000)
2000	185,654,000 <u>2/</u>	202,027,000	210,183,000	215,214,000
Rescission				(1,146,000)
2001	230,135,000 <u>2/</u>	256,281,000	256,953,000	246,801,000
Rescission				(399,000)
2002	275,725,000	273,610,000	281,584,000	277,658,000
Rescission				(1,567,000)
2003	313,534,000	313,534,000	331,443,000	302,099,000
Rescission				(1,964,000)
2004	315,401,000	315,401,000	319,396,000	311,635,000
Rescission				(2,520,000)
2005	316,947,000	316,947,000	316,900,000	317,947,000
Rescission				(2,801,000)
2006	318,091,000	318,091,000	327,247,000	318,091,000
Rescission				(3,181,000)
2007	313,269,000	313,269,000	315,294,000	314,290,000 <u>3/</u>
2008	312,562,000			

1/ Reflects enacted supplementals, rescissions, and reappropriations.

2/ Excludes funds for HIV/AIDS research activities consolidated in the NIH Office of AIDS Research

3/ Annualized current rate.

**NATIONAL INSTITUTES OF HEALTH  
National Library of Medicine**

**Details of Full-Time Equivalent Employment (FTEs)**

OFFICE/DIVISION	FY 2006 Actual	FY 2007 Continuing Resolution	FY 2008 Estimate
Division of Library Operations	322	322	322
Lister Hill National Center for Biomedical Comm	68	68	68
National Center for Biotechnology Information	155	161	170
Division of Specialized Information Services	35	35	35
Office of the Director/Administration	62	62	62
Division of Extramural Programs	14	14	14
<b>Total</b>	<b>656</b>	<b>662</b>	<b>671</b>
Includes FTEs which are reimbursed from the NIH Roadmap for Medical Research			
FTEs supported by funds from Cooperative Research and Development Agreements	(0)	(0)	(0)
FISCAL YEAR	Average GM/GS Grade		
2004	10.6		
2005	10.9		
2006	10.9		
2007	10.9		
2008	10.7		

**NATIONAL INSTITUTES OF HEALTH  
National Library of Medicine**

**Detail of Positions**

GRADE	FY 2006 Actual	FY 2007 Continuing Resolution	FY 2008 Estimate
Total, ES Positions	5	5	5
Total, ES Salary	786,643	814,176	842,672
GM/GS-15	33	33	33
GM/GS-14	48	48	48
GM/GS-13	114	114	114
GS-12	137	137	137
GS-11	34	34	34
GS-10	3	3	3
GS-9	28	28	28
GS-8	61	61	61
GS-7	29	29	29
GS-6	10	10	10
GS-5	4	4	4
GS-4	23	23	23
GS-3	13	13	13
GS-2	7	7	7
GS-1	2	2	2
Subtotal	546	546	546
Grades established by Act of July 1, 1944 (42 U.S.C. 207):			
Assistant Surgeon General	0	0	0
Director Grade	0	0	0
Senior Grade	1	1	1
Full Grade	0	0	0
Senior Assistant Grade	1	1	1
Assistant Grade	0	0	0
Subtotal	2	2	2
Ungraded	168	174	183
Total permanent positions	649	655	664
Total positions, end of year	721	727	736
Total full-time equivalent (FTE) employment, end of year	656	662	671
Average ES salary	157,329	162,836	168,535
Average GM/GS grade	10.7	10.7	10.7
Average GM/GS salary	74,573	76,542	78,838

Includes FTEs which are reimbursed from the NIH Roadmap for Medical Research.

**NATIONAL INSTITUTES OF HEALTH  
National Library of Medicine**

**New Positions Requested**

	FY 2008		
	Grade	Number	Annual Salary
Computer Scientists	Ungraded	9	\$90,000
<b>Total Requested</b>		<b>9</b>	