

DEPARTMENT OF HEALTH AND HUMAN SERVICES

NATIONAL INSTITUTES OF HEALTH

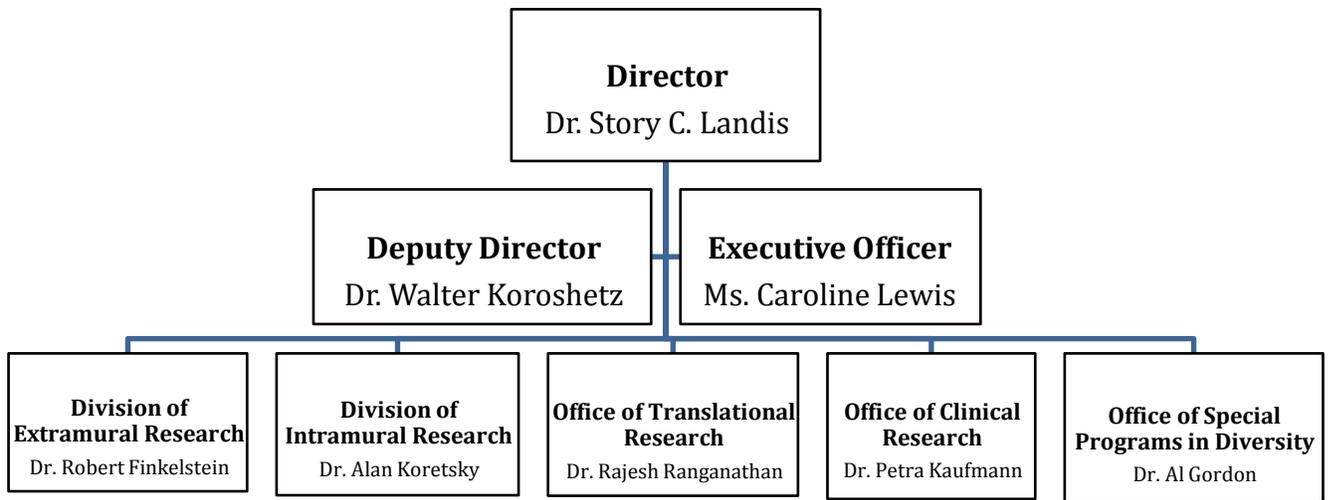
National Institute of Neurological Disorders and Stroke (NINDS)

<u>FY 2013 Budget</u>	<u>Page No.</u>
Organization Chart.....	2
Appropriation Language	3
Amounts Available for Obligation.....	4
Budget Mechanism Table	5
Major Changes in Budget Request	6
Summary of Changes	7
Budget Graphs	9
Budget Authority by Activity	10
Authorizing Legislation	11
Appropriations History	12
Justification of Budget Request	13
Budget Authority by Object Class	24
Salaries and Expenses	25
Detail of Full-Time Equivalent Employment (FTE)	26
Detail of Positions.....	27

NATIONAL INSTITUTES OF HEALTH National

Institute of Neurological Disorders and Stroke

Organizational Chart



NATIONAL INSTITUTES OF HEALTH

National Institute of Neurological Disorders and Stroke

For carrying out section 301 and title IV of the Public Health Services Act with respect to neurological disorders and stroke, [\$1,629,445,000] \$1,624,707,000. (*Department of Health and Human Services Appropriation Act, 2012.*)

NATIONAL INSTITUTES OF HEALTH
National Institute of Neurological Disorders and Stroke

Amounts Available for Obligation ¹
(Dollars in Thousands)

Source of Funding	FY 2011 Actual	FY 2012 Enacted	FY 2013 PB
Appropriation	1,636,371	1,629,445	1,624,707
Type 1 Diabetes	0	0	0
Rescission	(14,368)	(3,080)	0
Supplemental	0	0	0
Subtotal, adjusted appropriation	1,622,003	1,626,365	1,624,707
Real transfer under Secretary's transfer authority	0	(463)	0
Comparative Transfers for NCATS reorganization	0	0	0
Comparative Transfers to NCATS for Therapeutics and Rare and Neglected Diseases (TRND)	(1,335)	0	0
Comparative Transfers to NLM for NCBI and Public Access	(1,392)	(1,473)	0
Subtotal, adjusted budget authority	1,619,276	1,624,429	1,624,707
Unobligated balance, start of year	0	0	0
Unobligated balance, end of year	0	0	0
Subtotal, adjusted budget authority	1,619,276	1,624,429	1,624,707
Unobligated balance lapsing	(2)	0	0
Total obligations	1,619,274	1,624,429	1,624,707

¹ Excludes the following amounts for reimbursable activities carried out by this account:
FY 2011 - \$9,124 FY 2012 - \$9,500 FY 2013 - \$9,500

**NATIONAL INSTITUTES OF HEALTH National
Institute of Neurological Disorders and Stroke
Budget Mechanism - Total ^{1/}
(Dollars in Thousands)**

MECHANISM	FY 2011 Actual		FY 2012 Enacted		FY 2013 PB		Change vs. FY 2012	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount
Research Grants								
<u>Research Projects</u>								
Noncompeting	1,903	\$787,264	1,897	\$820,435	1,849	\$783,629	(48)	(\$36,806)
Administrative Supplements	83	24,218	34	10,000	17	5,000	(17)	(5,000)
Competing:								
Renewal	179	91,441	202	79,371	234	89,961	32	10,590
New	568	201,970	447	175,310	528	206,147	81	30,837
Supplements	2	557	1	483	1	548	0	65
Subtotal, Competing	749	\$293,968	650	\$255,164	763	\$296,656	113	\$41,492
Subtotal, RPGs	2,652	\$1,105,450	2,547	\$1,085,599	2,612	\$1,085,285	65	(\$314)
SBIR/STTR	96	\$39,581	104	\$43,008	109	\$44,292	5	\$1,284
Research Project Grants	2,748	\$1,145,031	2,651	\$1,128,607	2,721	\$1,129,577	70	\$970
<u>Research Centers</u>								
Specialized/Comprehensive	67	\$75,327	61	\$97,060	61	\$97,060	0	\$0
Clinical Research	0	0	0	0	0	0	0	0
Biotechnology	0	0	0	0	0	0	0	0
Comparative Medicine	0	1,400	0	1,500	0	1,500	0	0
Research Centers in Minority Institutions	0	0	0	0	0	0	0	0
Research Centers	67	\$76,727	61	\$98,560	61	\$98,560	0	\$0
<u>Other Research</u>								
Research Careers	221	\$36,155	218	\$36,155	217	\$36,155	(1)	\$0
Cancer Education	0	0	0	0	0	0	0	0
Cooperative Clinical Research	79	15,662	66	15,662	66	15,662	0	0
Biomedical Research Support	0	0	0	0	0	0	0	0
Minority Biomedical Research Support	1	245	1	245	1	245	0	0
Other	89	13,979	89	13,979	89	13,979	0	0
Other Research	390	\$66,041	374	\$66,041	373	\$66,041	(1)	\$0
Total Research Grants	3,205	\$1,287,799	3,086	\$1,293,208	3,155	\$1,294,178	69	\$970
<u>Research Training</u>								
Individual Awards	446	\$17,480	446	\$17,760	438	\$17,760	(8)	\$0
Institutional Awards	337	15,681	337	15,932	331	15,932	(6)	0
Total Research Training	783	\$33,161	783	\$33,692	769	\$33,692	(14)	\$0
Research & Development Contracts	102	\$82,526	102	\$81,739	102	\$80,712	0	(\$1,027)
<i>SBIR/STTR</i>	<i>1</i>	<i>\$59</i>	<i>1</i>	<i>\$78</i>	<i>1</i>	<i>\$78</i>	<i>0</i>	<i>\$0</i>
	<u>FTEs</u>		<u>FTEs</u>		<u>FTEs</u>		<u>FTEs</u>	
Intramural Research	342	\$157,631	342	\$157,633	337	\$157,633	(5)	\$0
Research Management and Support	167	58,159	167	58,157	166	58,492	(1)	335
Construction		0		0		0		0
Buildings and Facilities		0		0		0		0
Total, NINDS	509	\$1,619,276	509	\$1,624,429	503	\$1,624,707	(6)	\$278

1/ All items in italics are 'non-adds'; items in parenthesis are subtractions.

Major Changes in the Fiscal Year 2013 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 mechanism and activity detail and these highlights will not sum to the total change for the FY 2013 President's Budget request for NINDS, a total of \$1,624.7 million, which is \$0.278 million more than the FY 2012 level.

Research Project Grants (+\$0.970 million, total \$1,129.577 million): NINDS will support a total of 2,721 Research Project Grant (RPG) awards in FY 2013. Noncompeting RPGs will decrease by 48 awards and \$36.806 million. Competing RPGs will increase by 113 and \$41.492 million. NIH budget policy for RPGs in FY 2013 discontinues inflationary allowances and reduces the average cost of noncompeting and competing RPGs by one percent below the FY 2012 level.

Research Training (total \$33.692 million): NIH will provide an increase of two percent for stipends levels under the Ruth L. Kirschstein National Research Service Award training program to continue efforts to attain the stipend levels recommended by the National Academy of Sciences. This will build on the two percent increase in stipend levels for FY 2012. Stipend levels were largely flat for several years, and the requested increase will help to sustain the development of a highly qualified biomedical research workforce.

NATIONAL INSTITUTES OF HEALTH
National Institute of Neurological Disorders and Stroke
Summary of Changes
(Dollars in Thousands)

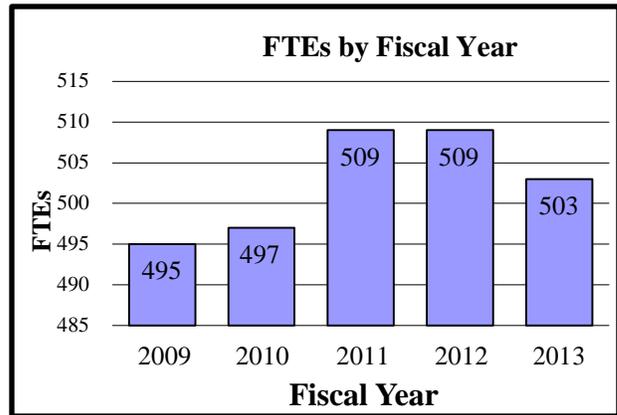
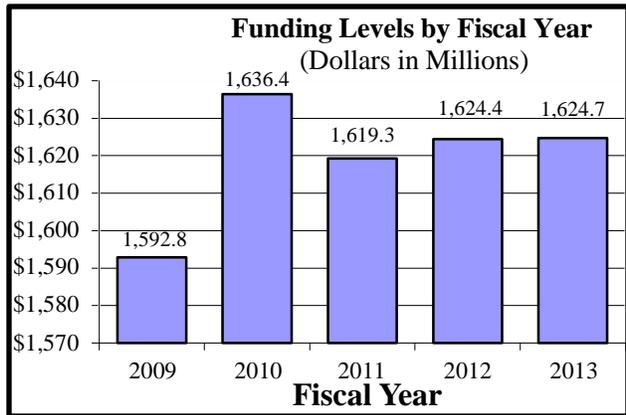
FY 2012 Enacted				\$1,624,429
FY 2013 President's Budget				\$1,624,707
Net change				\$278
CHANGES	2013 President's Budget		Change from FY 2012	
	FTEs	Budget Authority	FTEs	Budget Authority
A. Built-in:				
1. Intramural Research:				
a. Annualization of January				
2012 pay increase & benefits		\$50,016		\$2
b. January FY 2013 pay increase & benefits		50,016		155
c. One more day of pay		50,016		193
d. Annualization of PY net hires		50,016		0
e. Payment for centrally furnished services		25,241		0
f. Increased cost of laboratory supplies, materials, other expenses, and non-recurring costs		82,376		0
Subtotal				\$349
2. Research Management and Support:				
a. Annualization of January				
2012 pay increase & benefits		\$24,715		\$1
b. January FY 2013 pay increase & benefits		24,715		74
c. One more day of pay		24,715		95
d. Annualization of PY net hires		24,715		0
e. Payment for centrally furnished services		12,911		0
f. Increased cost of laboratory supplies, materials, other expenses, and non-recurring costs		20,866		0
Subtotal				\$170
Subtotal, Built-in				\$519

NATIONAL INSTITUTES OF HEALTH
National Institute of Neurological Disorders and Stroke

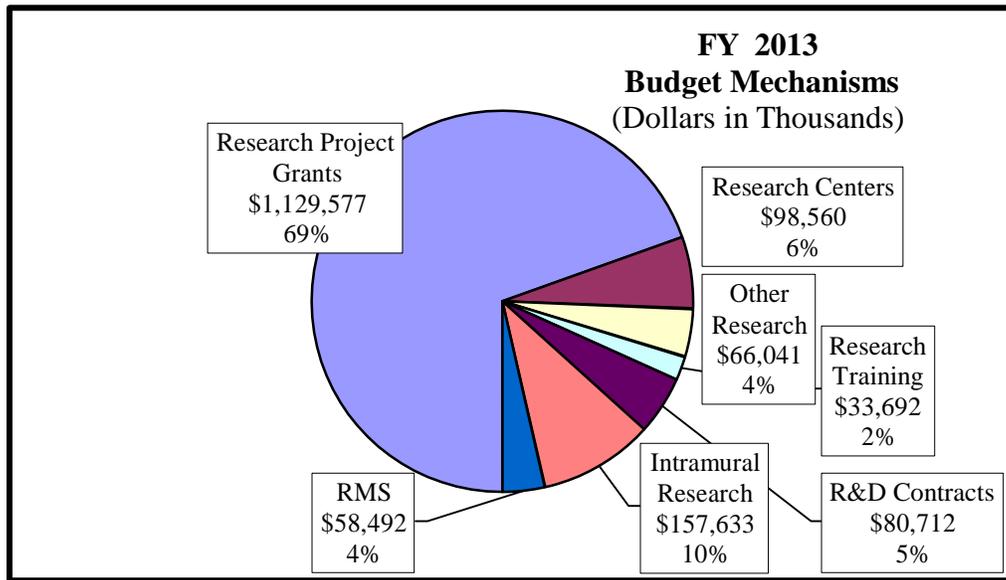
Summary of Changes--continued

CHANGES	2013 President's Budget		Change from FY 2012	
	No.	Amount	No.	Amount
B. Program:				
1. Research Project Grants:				
a. Noncompeting	1,849	\$788,629	(48)	(\$41,806)
b. Competing	763	296,656	113	41,492
c. SBIR/STTR	109	44,292	5	1,284
Total	2,721	\$1,129,577	70	\$970
2. Research Centers	61	\$98,560	0	\$0
3. Other Research	373	66,041	(1)	0
4. Research Training	769	33,692	(14)	0
5. Research and development contracts	102	80,712	0	(1,027)
Subtotal, Extramural		\$1,408,582		(\$57)
	<u>FTEs</u>		<u>FTEs</u>	
6. Intramural Research	337	\$157,633	(5)	(\$349)
7. Research Management and Support	166	58,492	(1)	165
8. Construction		0		0
9. Buildings and Facilities		0		0
Subtotal, program	503	\$1,624,707	(6)	(\$241)
Total changes				\$278

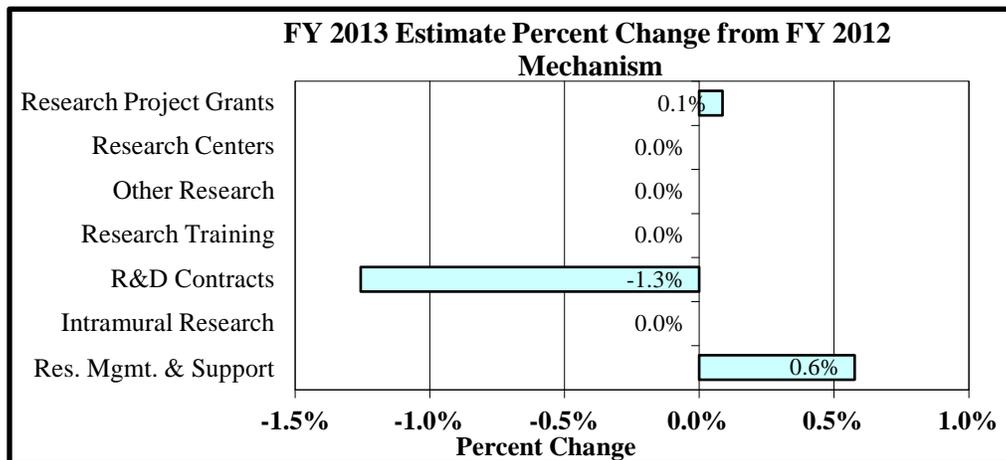
History of Budget Authority and FTEs



Distribution by Mechanism:



Change by Selected Mechanism:



**NATIONAL INSTITUTES OF HEALTH National
Institute of Neurological Disorders and Stroke Budget
Authority by Activity
(Dollars in Thousands)**

	FY 2011 Actual		FY 2012 Enacted		FY 2013 PB		Change vs. FY 2012 Enacted	
	FTEs	Amount	FTEs	Amount	FTEs	Amount	FTEs	Amount
Extramural Research								
Detail:								
Channels, Synapses, and Circuits		\$196,039		\$196,759		\$196,751		(\$8)
Infrastructure, Training Programs, and Resources		\$231,157		\$232,006		\$231,996		(\$10)
Neural Environment		\$214,634		\$215,422		\$215,413		(\$9)
Neurodegeneration		\$186,375		\$187,060		\$187,053		(\$7)
Neurogenetics		\$184,207		\$184,883		\$184,875		(\$8)
Repair & Plasticity		\$129,386		\$129,861		\$129,856		(\$5)
Systems & Cognitive Neuroscience		\$173,269		\$173,906		\$173,899		(\$7)
Translational research		\$88,419		\$88,742		\$88,739		(\$3)
Subtotal, Extramural		\$1,403,486		\$1,408,639		\$1,408,582		(\$57)
Intramural Research	342	\$157,631	342	\$157,633	337	\$157,633	(5)	\$0
Research Management & Support	167	\$58,159	167	\$58,157	166	\$58,492	(1)	\$335
TOTAL	509	\$1,619,276	509	\$1,624,429	503	\$1,624,707	(6)	\$278

1. Includes FTEs which are reimbursed from the NIH Common Fund.

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

**NATIONAL INSTITUTES OF HEALTH National
Institute of Neurological Disorders and Stroke**

Authorizing Legislation

	PHS Act/ Other Citation	U.S. Code Citation	2012 Amount Authorized	FY 2012 Enacted	2013 Amount Authorized	FY 2013 PB
Research and Investigation	Section 301	42§241	Indefinite	\$1,624,429,000	Indefinite	\$1,624,707,000
National Institute of Neurological Disorders and Stroke	Section 401(a)	42§281	Indefinite		Indefinite	
Total, Budget Authority				\$1,624,429,000		\$1,624,707,000

NATIONAL INSTITUTES OF HEALTH
National Institute of Neurological Disorders and Stroke

Appropriations History

Fiscal Year	Budget Estimate to Congress	House Allowance	Senate Allowance	Appropriation
2004	\$1,468,926,000	\$1,468,326,000	\$1,510,926,000	\$1,510,776,000
Rescission				(\$9,569,000)
2005	\$1,545,623,000	\$1,545,623,000	\$1,569,100,000	\$1,539,448,000
Rescission				(\$12,675,000)
2006	\$1,550,260,000	\$1,550,260,000	\$1,591,924,000	\$1,550,260,000
Rescission				(\$1,503,000)
2007	\$1,524,750,000	\$1,524,750,000	\$1,537,703,000	\$1,534,757,000
Rescission				\$0
2008	\$1,537,019,000	\$1,559,106,000	\$1,573,268,000	\$1,571,353,000
Rescission				(\$27,452,000)
Supplemental				\$8,212,000
2009	\$1,545,397,000	\$1,598,521,000	\$1,588,405,000	\$1,593,344,000
Rescission				\$0
2010	\$1,612,745,000	\$1,650,253,000	\$1,620,494,000	\$1,636,371,000
Rescission				\$0
2011	\$1,681,333,000		\$1,678,696,000	\$1,636,371,000
Rescission				(\$14,368,312)
2012	\$1,664,253,000	\$1,664,253,000	\$1,603,741,000	\$1,629,445,000
Rescission				(\$3,079,651)
2013	\$1,624,707,000			

Justification of Budget Request

National Institute of Neurological Disorders and Stroke

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

Budget Authority (BA):

	FY 2011 Actual	FY 2012 Enacted	FY 2013 President's Budget	FY 2013 +/- FY 2012
BA	\$1,619,276,000	\$1,624,429,000	\$1,624,707,000	+\$278,000
FTE	509	509	503	-6

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

Director's Overview

The mission of NINDS is to reduce the burden of neurological disorders through research. NIH research has transformed the outlook for many neurological disorders, not only directly but also by providing the foundation for industry therapy development. Dramatically improved stroke prevention and treatment,¹ drugs for multiple sclerosis, better control of seizures in epilepsy, deep brain stimulation for Parkinson's and other diseases, enzyme therapies, and tests that reduce by years the time to obtain a diagnosis for rare disorders are among the advances that benefit many people today. Moreover, prospects for the future are remarkable. Research has identified hundreds of neurological disease-causing genes and drug targets, with the first ever disease-modifying therapies for several disorders now advancing toward clinical trials. New animal and cell models of disease are accelerating research. Stem cells, gene therapy, and brain-computer interfaces have moved from theoretical possibilities into human testing. Paradoxically, however, industry is cutting back research on brain disorders which is being driven by the economic environment and greater challenges compared to other areas of medicine².

Academia and industry agree that gaps in basic understanding of the normal brain or disease mechanisms impede progress against neurological disease. Drug companies are increasingly reluctant to embark on costly development programs without understanding disease and drug mechanisms, but much of the missing knowledge is in the "precompetitive" sphere where industry would be unlikely to recoup investments. NIH funded researchers are addressing these gaps. Technologies now allow studies from mapping the structure of single molecules to imaging the activity of the thinking human brain, with vast information now at their fingertips via computer databases. In addition, NINDS is investing in whole genome sequencing and comprehensive analyses of gene activity in the brain. For example, a new Center without Walls

¹ From 1996-2006, the U.S. age-adjusted stroke death rate fell 33.5% and actual stroke deaths declined 18.4%. Centers for Disease Control and Prevention (CDC) <http://wonder.cdc.gov/mortSQL.html>

² "R&D Cuts Curb Brain-Drug Pipeline," The Wall Street Journal, March 27, 2011

will focus on the genetics of epilepsy, and the NINDS Human Genetics Repository stimulates sharing of clinically characterized genetic samples and cell lines among researchers. With advanced brain imaging, the NIH Blueprint Connectome Project is systematically mapping the connections of the human brain. Improved brain imaging and behavioral testing is also shedding light on many disorders, including soldier's brain injuries and sports concussions. At the cellular level, scientists are transforming induced pluripotent stem cells (iPSC's) derived from patients with Parkinson's, Huntington's, amyotrophic lateral sclerosis (ALS), epilepsy, spinal muscular atrophy (SMA), and other diseases into brain cells to study disease mechanisms and screen drugs. New methods for studying the microscopic details of brain structure and for controlling activity of individual nerve cells are also revolutionizing neuroscience. Together these technologies will enable scientists to understand how molecules and cells work together to carry out higher brain functions; what goes wrong following injury and in disease; how to target specific steps in disease mechanisms; and how to boost the brain's natural "plasticity" to promote recovery.

NINDS has a long history of translating scientific advances into therapies. The Institute is uniquely poised to take on the challenges of rare diseases, bold new therapeutic strategies, and new uses for existing drugs. To exploit increasing scientific opportunities, NINDS began the Cooperative Program in Translational Research in 2002 to support teams of academic and small business investigators to carry out preclinical therapy development with milestone-gated funding. The pioneering Neural Prosthesis Program is continuing, as is the Anticonvulsant Screening Program, which has contributed substantially to eight epilepsy drugs on the market. Disease-focused programs including the Morris K. Udall Parkinson's Disease Centers of Excellence, Paul D. Wellstone Muscular Dystrophy Cooperative Research Centers, and Specialized Programs of Translational Research in Stroke also carry out translational research, as will a new Epilepsy Center without Walls on disease modification and prevention. The Institute is also leading the ambitious NIH Blueprint Grand Challenge on Neurotherapeutics to develop truly novel drugs that will transform the treatment of nervous system diseases.

Advances in understanding disease mechanisms are transforming the prospects for therapy development. To capitalize on these opportunities, NINDS is launching the NeuroNext network at 25 clinical sites across the U.S. to improve the speed and effectiveness of early (phase II) clinical evaluation. A single Institutional Review Board and master agreements will efficiently engage clinical sites, and NeuroNext will protect intellectual property to support testing of promising interventions from academia, foundations, or industry. NINDS is also developing and validating biomarkers for Parkinson's and other disorders. These measurable indicators of the disease process and drug effects can expedite therapy development. NINDS phase III, multi-center clinical trials contribute directly to reduced disability and death, including prevention. NINDS trials may find that the most expensive treatment is not the best treatment for patients, as shown this year in two trials for prevention of a second stroke and a trial on rehabilitation of walking³. NIH and the Department of Defense are also working together on Traumatic Brain Injury (TBI) projects, including a central database that will accelerate research.

Harnessing the insight and ingenuity of the research community is critical for the future. NINDS is reallocating resources to maintain vigorous investigator initiated research. Based on intensive

³ N Engl J Med 365:993-1003, 2011; JAMA 306:1983-1992, 2011

program evaluation, the Institute terminates programs that have met their goals or are no longer priorities because of changes, such as improved technologies. Policies such as limiting renewals of program project grants also favor support for new ideas. Most recently, with input from the public and scientific community, NINDS reorganized programs on health disparities and on workforce diversity, enhanced management of small business programs, and is revitalizing the Anticonvulsant Screening Program. NINDS targets resources to new ideas and new investigators through NIH-wide programs, such as the Pathway to Independence and New Innovator Awards, and through Institute-specific policies and priorities.

Despite progress, neurological diseases still have an enormous impact on all age groups and segments of society. The frequency of neurodegenerative disorders is increasing as our population ages. TBI has long lasting consequences on young adults, civilian and military. Epilepsy, autism, and hundreds of inherited disorders disrupt the lives of children and families. Stroke disparities persist in spite of progress in prevention. The urgency of the NINDS mission is great, but so are opportunities for progress. NINDS is continuing to reduce the burden of neurological disorders, both directly and indirectly by encouraging private sector engagement through basic research, tool development, and pioneering new therapeutic strategies.

Overall Budget Policy: The FY 2013 President's Budget request is \$1,624.707 million, an increase of \$0.278 million or 0.02%, over the FY 2012 Enacted level. NINDS emphasizes investigator-initiated research, and targets solicitations to unmet, mission-critical scientific opportunities and public health needs. Across all scientific and disease areas, the Institute tailors programs to the different requirements of basic research, translational therapy development, and clinical studies, including clinical trials. The Institute intensively reviews ongoing programs, in consultation with the National Advisory Neurological Disorders and Stroke Advisory Council and other outside experts as appropriate, and reallocates resources from programs that no longer warrant investment to encourage new investigators, maintain vigorous investigator-initiated research, and encourage innovative research. NINDS also rigorously evaluates the mission relevance of all new initiative proposals and requests to submit applications for large investigator-initiated projects. Funds are included in R&D contracts to support trans-NIH initiatives, such as the Basic Behavioral and Social Sciences Opportunity Network (OppNet).

Program Descriptions and Accomplishments

Channels, Synapses, and Circuits: Ion channels, synapses, and circuits of interacting nerve cells are fundamental components of the nervous system. Ion channels control electrical currents in cells. Synapses are the connections by which nerve cells influence the activity of other nerve cells. Circuits formed by networks of interconnected nerve cells carry out the higher functions of the brain. NINDS supports research on how channels, synapses, and circuits operate in the healthy nervous system in the adult and developing brain and on neurological disorders in which these fundamental elements play a major role. The program encompasses basic, translational, and clinical research. Epilepsy, which affects nearly one percent of the U.S. population, is a common disorder in which channels, synapses, and brain circuits are a major focus, and recent research has uncovered key roles for channel and circuit dysfunction in other common disorders, including Alzheimer's and Parkinson's disease. The Institute continues its longstanding research

program that has contributed to many advances in epilepsy treatment. Since 2001, the Epilepsy Benchmarks process has brought the NIH, the research community, and non-governmental organizations together to establish milestones and monitor progress toward the goal of “no seizures, no side effects.” In accord with those goals, NINDS is increasing emphasis on preventing the epilepsies and their progression, developing new therapeutic strategies, and addressing co-morbidities of epilepsy.

Budget Policy: The FY 2013 President’s Budget request is \$196.751 million, a decrease of \$0.008 million, under the FY 2012 Enacted level. In 2013, NINDS will continue to balance investigator-initiated research and research targeted to specific mission priorities, including projects funded through the Institute’s translational research and clinical trials programs. Beginning in 2011 and continuing in 2013, a series of three major initiatives targets priorities that arise from the Epilepsy Benchmarks process: 1) A translational initiative supports exploratory projects and larger milestone driven preclinical therapy development projects through the NINDS Cooperative Program on Translational Research. These translational projects focus on interventions for treatment resistant epilepsy and on preventing epileptogenesis, that is, the development of epilepsy. 2) A EUREKA program for the epilepsies, based on the NIH Exceptional Unconventional Research Enabling Knowledge Acceleration program, supports innovative research on novel hypotheses or difficult problems in epilepsy which would have a high impact on epilepsy research. 3) The Epilepsy Centers without Walls program addresses high priority Benchmarks research areas that are not easily addressed through regular grant mechanisms. The structure and resources of the Centers will vary according to the specific needs and goals of the different Benchmark topics, but each Center will bring together the best multidisciplinary team of investigators, regardless of geographic locations, to focus for multiple years on a specific problem. In 2012 NINDS funded the first Center without Walls on genetics and genomics of the epilepsies and two planning grants to enable teams to develop a center on SUDEP (Sudden Unexplained Death in Epilepsy). The program will continue with with full Centers without Walls or planning grants, as appropriate to the readiness of the field, on SUDEP and on disease modification and prevention of epilepsy. In March 2013, a major Curing Epilepsy Conference will continue the Epilepsy Benchmarks process, following the earlier Curing Epilepsy conferences in 2001, which initiated the Benchmarks, and a follow-up meeting 2007. Benchmark “stewards” from the patient and research community continuously monitor progress between these major meetings.

Infrastructure, training programs, and resources: NINDS supports infrastructure for clinical research and clinical trials, training and career development, research resources, workforce diversity, and health disparities research that serves these activities throughout NINDS extramural programs. The Office of Clinical Research is continuing to enhance the efficiency and effectiveness of NINDS clinical research programs through improved management and innovative programs. NINDS clinical research includes early phase clinical trials through large multi-site phase III trials, epidemiological studies, and other clinical research. In FY 2012, NINDS is launching NeuroNext, a multi-site clinical for early phase (II) clinical trials of novel therapies for neurological disorders and related studies, including biomarker validation. The network will improve the speed and effectiveness of these studies through features such as a single Institutional Review Board and master agreements among clinical sites, and will protect intellectual property to enable testing of the most promising interventions, whether they arise

from academia, foundations, or industry. The Neurological Emergency Treatment trials Network (NETT) brings together experts from neurology, neurosurgery, emergency medicine, and other medical disciplines to conduct clinical trials for stroke, traumatic brain injury (TBI), continuous seizures, and other neurological emergencies. The Specialized Programs for Translational Research in Stroke (SPOTRIAS) centers are developing acute interventions for stroke. NINDS is also working with the research community to develop common data elements that enable comparison and sharing of clinical data across studies. Following the advice of strategic planning panels on workforce diversity and on health disparities, the Institute has integrated diversity activities with other NINDS training programs and disparities in the NINDS Office of Clinical Research, as well as continuing infrastructure programs within the Office of Special Programs in Diversity.

Program Portrait: Stroke Prevention/Intervention Research Program (SPIRP)

FY2013 Level: \$4.5 million

FY2012 Level: \$4.5 million

Change: \$0.0 million

The purpose of the Stroke Prevention/Intervention Research Program (SPIRP) is to directly and demonstrably reduce stroke health disparities. NIH research has contributed to the dramatic reductions in stroke in the general population. However, despite this progress, substantial disparities persist across racial and ethnic groups with respect to stroke risk and outcomes. NINDS epidemiological studies have followed tens of thousands of people in high risk populations over many years, quantified the extent of disparities, and, most importantly, revealed crucial contributing factors and targets for intervention. For example, atrial fibrillation, which presents a strongly increased risk for stroke that can be reduced by intervention, is not adequately diagnosed and treated in minority populations, and interventions that can reduce stroke risk from other risk factors are also underutilized. The findings of the NINDS Advisory Planning Panel on Health Disparities Research, which reported to the NINDS Advisory Council in 2011, guide the SPIRP program. NINDS will also convene a scientific workshop in 2012 that will explore how best to move from the epidemiological findings to interventions that reduce disparities.

In 2011, NINDS informed the research community about plans for the SPIRP program, and the Institute released a solicitation in FY2012. In FY2013, the Institute will fund two SPIRPs through the U54 cooperative agreement center grant mechanism, assuming as for all programs that researchers present scientifically meritorious proposals. Each SPIRP will contain at least one prevention/intervention project that directly addresses racial/ethnic stroke disparities and at least one additional stroke disparities research project. Each SPIRP will also train researchers or community stakeholders, such as physicians, nurses, and community health workers, and conduct public outreach. The SPIRP program is an important component of NINDS activities to reduce health disparities, which is a major priority for the Institute.

Budget Policy: The FY 2013 President's Budget request is \$231.996 million, a decrease of \$0.010 million or 0.01%, under the FY 2012 Enacted level. This level will support the continuation of the NETT program in 2013. The network completed recruitment for its first major clinical trial ahead of schedule and is showing promising evidence that it will meet its goals of improving the effectiveness and efficiency of clinical trials of neurological emergencies. NINDS is examining options for future of the SPOTRIAS in the context of a comprehensive review and planning effort for all stroke programs that is underway. In 2012, NINDS funded the data coordinating center, clinical coordinating center, and 25 clinical sites across the U.S. for the NeuroNext clinical network. Following a 2011 NIH-FDA workshop on biomarkers to accelerate therapy development for spinal muscular atrophy (SMA), NINDS solicited applications for SMA

biomarkers as potential studies within NeuroNext, to begin in 2012. NeuroNext also issued solicitations targeted at academic investigators, foundations, small businesses, and industry for the first clinical trials to be conducted in the network, with the first trials likely to begin in 2013. A full range of NINDS programs in training and career development, are also continuing, including individual and institutional grants at the graduate, post-doctoral, and career development levels. In accordance with the recommendations of the NINDS planning panels on workforce diversity and health disparities, NINDS is modifying the Specialized Neuroscience Research Programs (SNRP) to focus on enhancing diversity and build on the progress during the first decade of this program. The new name of the program reflects these changes--Specialized programs in Neuroscience Diversity (SPIN-D).

Neural Environment: Non-neuronal cells, called glial cells, outnumber nerve cells in the brain. These cells, together with specialized blood vessels, maintain the local environment around nerve cells, fight infections, and control which molecules get into the brain from the circulating blood through the blood-brain barrier. Neurological disorders may result when non-neuronal cells are compromised, as in multiple sclerosis; when these cells themselves become aggressors, as in brain tumors; when viruses, bacteria, or parasites infect the nervous system, as in NeuroAIDS; or when the blood supply to brain cells is compromised, as in stroke. NINDS supports basic, translational, and clinical research on the normal control of the neural environment and on the diseases in which its disruption plays a major role, with the goal of improving prevention and treatment. Over many years, the program has made substantial contributions to the development of treatments for stroke, multiple sclerosis, and other diseases.

Budget Policy: The FY 2013 President's Budget request is \$215.413 million, a decrease of \$0.009 million, under the FY 2012 Enacted level. NINDS will continue to balance research targeted to specific priorities and investigator-initiated research, including research through the Institute's translational research and clinical trials programs. The Institute is continuing to collaborate with the National Cancer Institute (NCI) in support of Specialized Programs of Research Excellence (SPORE) center grants that support highly interactive translational research to improve prevention, early detection, diagnosis, and treatment of brain tumor or other nervous system tumors. The Institute is working with other components of the NIH on NeuroAIDS related research, including continuing solicitations on HIV associated neurodegeneration in populations on long term retroviral therapy, on pediatric HIV/AIDS, and on atiretroviral therapy effects on the central nervous system. These efforts complement the increased emphasis on NeuroHIV in the NINDS Intramural Research Program. NINDS has begun an intensive planning effort on Stroke, engaging the medical and scientific community that will report in 2012 and guide the Institute's extensive programs on stroke research.

Neurodegeneration: Many neurodegenerative disorders increase in frequency in older people. Thus, these diseases present an increasing human and economic challenge to the U.S. as our population ages. Alzheimer's disease, amyotrophic lateral sclerosis (ALS), frontotemporal dementias, Huntington's disease, Parkinson's disease, and vascular cognitive impairment are among the neurodegenerative diseases that affect adults. NINDS research on neurodegeneration ranges from studies of disease mechanism that identify potential therapeutic targets, through development of animal models and intensive preclinical development of all modes of therapy (drug, gene, cell, and device), and multi-site clinical trials that test the safety and efficacy of new

therapies. Studies of genetic and environmental influences, and their interaction, are important aspects of the program. Based on the accumulating evidence from the many genetic findings, researchers are inferring the cellular pathways that underlie disease and potential targets for intervention. A key unifying aspect of the program is the recognition that shared mechanisms contribute to multiple neurodegenerative diseases. These include neuronal cell death pathways, perturbations of cells' recycling machinery, protein misfolding and aggregation, and mitochondrial dysfunction.

Budget Policy: The FY 2013 President's Budget request is \$187.053 million, a decrease of \$0.007 million, under the FY 2012 Enacted level. NINDS neurodegeneration research will continue to balance investigator-initiated research and solicited research, including projects funded through the Institute's translational research and clinical trials programs. The Morris K. Udall Parkinson's Disease Centers of Excellence program is continuing, with increased emphasis on translational research. Beginning in 2012, an NINDS initiative is developing and validating biomarkers for Parkinson's disease. Biomarkers are objectively measurable indicators of the disease process and drug actions that can accelerate the development of treatments. The Institute is also continuing a public-private initiative begun in 2010 to validate molecular targets for interventions that slow the progression of Huntington's disease and is continuing to support the development of induced pluripotent stem cells (iPSCs) for neurodegenerative diseases and their availability to the research community. Although this technology was developed recent years, iPSCs derived from patients with a disease and directed to form neural cells are already demonstrating their usefulness in studying neurological diseases and developing therapies.

Neurogenetics: Gene defects cause hundreds of diseases that affect the nervous system. Symptoms may be evident early in infancy or only emerge later, even in old age. Neurogenetic disorders include the ataxias, Down syndrome, dystonia, lysosomal storage diseases, muscular dystrophies, peripheral neuropathies, Rett syndrome, spinal muscular atrophy, and Tourette syndrome, among many others. NIH research has identified hundreds of gene defects that are responsible for these diseases. Research building on these discoveries has developed better diagnostics, animal models for testing therapies, and rationally designed interventions that are now showing promise in animals and beginning to enter clinical testing. In addition to disorders caused by defects in single genes, multiple genes interacting with environmental influences contribute to the susceptibility and progression of common neurological disorders, including autism, stroke, Parkinson's disease, and multiple sclerosis. The neurogenetics program supports research on genes that cause neurological disorders, on the molecular mechanisms through which genes act, and on the development of gene based animal and cell models of disease. The program also promotes the development of gene-based therapies and drugs targeted to specific gene products. Also key to progress is the development of resources for neurogenetics research. NINDS resources for genetics research include the NINDS Human Genetics Repository, which fosters sharing of clinically well characterized genetic material and cell lines among investigators. In addition to investigator-initiated research, catalytic resources, and targeted solicitations to unmet research opportunities, NINDS supports scientific workshops on neurogenetic disorders that stimulate the research community to discuss the state of the science and opportunities for progress.

Budget Policy: The FY 2013 President's Budget request is \$184.875 million, a decrease of \$0.008 million, under the FY 2012 Enacted level. NINDS will continue to support investigator-initiated grants and targeted activities in neurogenetics, including projects funded through the Institute's translational research and clinical trials programs. The Institute is providing substantial support for whole genome sequencing and other the application of other "next generation" genomics methods to neurological disorders. In 2013, the Institute is also continuing its support for the Paul D. Wellstone Muscular Dystrophy Cooperative Research Centers, which have a strong translational research component, and for the Autism Centers for Excellence; both of these are trans-NIH programs. The Institute also works closely with the NIH Office of Rare Disease Research in supporting and providing disease specific expertise to nervous system disease related consortia within the Rare Diseases Clinical Research Network, including the Dystonia Coalition.

Repair and Plasticity: NINDS supports extensive research on spinal cord injury and traumatic brain injury (TBI), and on repairing damage to the nervous system from disease or trauma from these and other causes. Longstanding NINDS support for the study of neural stem cells and the generation of new cells within the nervous system, and for research on the brain's innate capacity to adapt through "plasticity" has contributed to substantial progress that has potential applications to many neurological disorders. For more than thirty years, the NINDS Neural Prosthesis program has successfully pioneered research on devices that restore nervous system function lost to injury or disease. Current emphasis areas in neuroengineering and neural prosthesis research include a new generation of devices that take control signals directly from the brain and improving technology for deep brain stimulation, which has proven effective or is promising for treating several neurological disorders. Stimulated by the high rate of traumatic brain injury among U.S. military personnel, NINDS has enhanced coordination of TBI research within the NIH and across the several Federal Agencies that support such research, including the Departments of Defense and Veterans Affairs. Trans-agency collaborative workshops have focused on TBI classification, the unique issues of TBI from blast, combination therapies for TBI, and common data elements for TBI research to facilitate sharing and comparison of data from different studies, among other topics.

Budget Policy: The FY 2013 President's Budget request is \$129.856 million, a decrease of \$0.005 million, under the FY 2012 Enacted level. NINDS continues to balance investigator-initiated research and solicitations, including projects funded through the Institute's translational research and clinical trials programs. In 2013 NINDS will continue to solicit projects to translate advanced neural prosthetics up to and through "first in human" clinical demonstrations. The Institute also continues to work closely with research programs in the Department of Defense, Veterans Affairs, and other agencies on traumatic brain and spinal cord injury. NIH and the Department of Defense are developing a Federal Interagency Traumatic Brain Injury Research (FITBIR) database that will serve as a central repository for new data, link to current databases, and allow sharing of data and comparison across studies. The system is a key part of the larger interagency efforts to improve diagnosis and treatment of TBI.

Systems and Cognitive Neuroscience: Systems of interconnected nerve circuits in the brain, spinal cord, and body control learning, memory, attention, language, thinking, emotion, movement, the sleep-wake cycle, pain perception, and other complex behaviors. NINDS

supports research on how systems of nerve cells carry out these functions and on counteracting the disruptive effects of neurological disorders on neural circuits. Stroke, brain trauma, and neurodegenerative diseases are among the disorders that affect cognition and other complex behaviors. Migraine and other chronic pain are very prevalent disorders that are important areas of emphasis in this program. NINDS is the largest NIH supporter of research on pain and was recently designated as the lead NIH institute for pain research. The Institute is continuing to work with other NIH Institutes and Centers via the NIH Pain Consortium and with the wider Federal and private sector communities through the new Interagency Pain Research Coordinating Committee.

Budget Policy: The FY 2013 President's Budget request is \$173.899 million, a decrease of \$0.007 million, under the FY 2012 Enacted level. NINDS balances investigator initiated research and solicitations, including projects funded through the Institute's translational research and clinical trials programs. Pain continues to be a major area of emphasis. An NIH Blueprint Grand Challenge program, begun with a solicitation for 2012, focuses on the transition from acute to chronic neuropathic pain. Blueprint programs are also continuing to support grants on collaborative research on neuropathic pain or neuroplasticity, and on mechanisms, models, measurement, and management in pain research. NINDS is supporting a program, beginning in 2012, on Pain Consortium Centers of Excellence for Pain Education. Another continuing trans-NIH activity supports collaborative studies on the central nervous system and glycemia, focusing on new interdisciplinary collaborations by researchers in neuroscience and in diabetes/metabolism to further understand the mechanisms by which the brain controls glucose levels and the consequences to the brain of derangements in these mechanisms.

Translational Research: The Office of Translational Research (OTR) manages major Institute translational programs, as well as providing expertise to NINDS preclinical therapy development activities, which span all of the Institute's scientific programs. OTR leads the Institute's most comprehensive preclinical therapy development program, the Cooperative Program in activities, which span all of the Institute's scientific programs. OTR leads the Institute's most comprehensive preclinical therapy development program, the Cooperative Program in Translational Research. This program supports teams of academic and small business investigators to develop therapies for neurological disorders. Because the failure rate is high in therapy development, milestone-based funding enables the OTR to stop projects in this program that are no longer making progress and to shift funds to more promising opportunities. OTR also directs the longstanding Anticonvulsant Screening Program (ASP). OTR is leading the NIH Blueprint for Neuroscience Grand Challenge on Neurotherapeutics. The challenge goal is to develop truly novel drugs that transform the treatment of nervous system diseases. Beginning in 2010, following advice from an advisory panel from government, academic, and industry, OTR has also taken on leadership of NINDS SBIR and STTR programs, working with scientific experts throughout the extramural program as with other translational activities. NINDS also continues an active working group with the FDA Center for Biologics Research to discuss shared interests on advancing cell, gene therapy, and other biologic therapies for neurological disorders. NINDS is also taking an active role in NIH-FDA regulatory science initiatives.

Program Portrait: Anticonvulsant Screening Program

FY2013 Level: \$3.1 million

FY2012 Level: \$1.5 million

Change: +\$1.6 million

NINDS is making major changes to the Anticonvulsant Screening Program (ASP) to better reflect current priorities and needs of the epilepsy community, which include drugs for treatment resistant epilepsy and to block the development of epilepsies, and emerging opportunities which arise from better understanding of the mechanisms of specific subtypes of epilepsy. Over more than 35 years, the ASP has partnered with academic and industry investigators by testing potential anticonvulsant compounds in standardized animal models of epilepsy. The ASP provides results to the investigators with no charge for testing, while protecting intellectual property to stimulate further private sector drug development. The ASP has tested more than 30,000 potential drugs through more than 500 public-private partnerships, and contributed to the development of eight drugs that are now on the market. The ASP program and testing models have historically focused on drugs to halt seizures. This was critical when the program began. An NINDS survey at that time determined that the available anti-seizure drugs were inadequate for many people with epilepsy and private investment in this area was limited because of the high cost of drug development relative to the size of the market and the difficulty of predicting clinical efficacy of new compounds. However, through public-private partnership many such drugs are now available, and today the priorities of the epilepsy community are the development of drugs that prevent the development of epilepsy (anti-epileptogenesis drugs), and drugs that modify the underlying disease process which may also address co-morbidities that contribute greatly to the burden of this disease.

In 2011, NINDS undertook an intensive review of the ASP program, with an advisory group including academic-medical experts on epilepsy, industry expertise in drug development, and representation of the patient community. Guided by the group's recommendations and advice from the NINDS Council, the Institute will maintain the ASP program but substantially change its emphasis and processes. The ASP will develop and deploy new testing models focused on anti-epileptogenesis and disease modification and increase emphasis on treatment resistant epilepsy. The program will also better integrate with other NINDS epilepsy research by developing models and testing based on new understanding of the molecular mechanisms of subtypes of epilepsy, including pediatric epilepsies and genetic epilepsy syndromes. NINDS will take steps to increase the quality of compounds and the completeness of data on submission. This will allow more rational decisions to better align the program with the current drug development landscape and to catalyze private sector investment in the most important priorities for epilepsy.

Budget Policy: The FY 2013 President's Budget request is \$88.739 million, a decrease of \$0.003 million under the FY 2012 Enacted level. This includes programs led by the Office of Translational Research, but does not include all NINDS translation research activities, which are also supported through budgets of other program areas as appropriate to the disease of focus. The Cooperative Program in Translational Research continues in 2013 with single component and multi-component milestone-driven therapy development projects, including small business awards, as well as smaller exploratory or developmental projects. Based on an intensive review by a panel of experts from academia, industry, and the public, NINDS is making major changes to the Anticonvulsant Screening Program (ASP) to better reflect current patient needs and scientific opportunities. In 2013, OTR is also leading the NIH Neuroscience Blueprint Grand Challenge in Neurotherapeutics, with the first preclinical therapy development projects now underway. OTR has also taken on leadership of NINDS SBIR/STTR programs. Specific SBIR/STTR solicitations continuing in 2013 focus on nanoscience and nanotechnology, on the development of pediatric drug formulations, on tools for brain and behavioral research, on predictive multi-scale models, and on early phase clinical trials.

Intramural Research: The NINDS Intramural Research Program conducts basic, translational, and clinical research on the NIH campus in Bethesda, Maryland, which is one of the largest communities of neuroscientists in the world. Among the unique resources of the NIH campus, the Mark O. Hatfield Clinical Center is a hospital totally dedicated to clinical research and the NIH Porter Neuroscience Research Center integrates neuroscience across NIH institutes and disciplinary boundaries. Intramural program research on the normal nervous system covers a broad range of neuroscience, including ion channel structure and function, reconstruction of the intricate details of nervous system anatomy, neuronal development, and integrative neuroscience. Intramural laboratories conduct research and therapy development for neurological disorders, including neurogenetic diseases, movement disorders, multiple sclerosis, epilepsy, stroke, and other disorders. A major new laboratory is focusing on understanding viral infections of the nervous system, including HIV, and the development of new diagnostic and therapeutic approaches for these diseases. Areas of focus in the neurosurgical biology and therapeutics branch include direct drug delivery methods for neurological disorders and brain tumor biology and treatment. Ongoing Intramural activities include a joint brain tumor program with the National Cancer Institute and the Suburban Hospital and Washington Hospital Center Stroke centers. The NINDS Intramural program continues to be a leader in development of novel magnetic resonance imaging (MRI) strategies for detecting normal and abnormal function of the brain. Intramural researchers are also engaged in the Center for Neuroscience and Regenerative Medicine, which is a collaborative program with the Department of Defense, including the Walter Reed National Military Medical Center and the Uniformed Services University, that brings together clinicians and scientists across disciplines to catalyze innovative approaches to traumatic brain injury research.

Budget Policy: The FY 2013 President's Budget request is \$157.633 million, the same as the FY 2012 Enacted level. In 2013, as a result of ARRA funding, phase II of the construction of the John Edward Porter Neuroscience Research Center will complete this complex. By its design, the Porter Center encourages collaborative research across scientific disciplines, between basic and clinical scientists, and across multiple components of the NIH whose missions intersect in the brain and nervous system.

Research Management and Support (RMS): NINDS 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.

Budget Policy: The FY 2013 President's Budget request is \$58.492 million, an increase of \$0.335 million or 0.58%, over the FY 2012 Enacted level.

**NATIONAL INSTITUTES OF HEALTH National
Institute of Neurological Disorders and Stroke**

Budget Authority by Object
(Dollars in Thousands)

	FY 2012 Enacted	FY 2013 PB	Increase or Decrease
Total compensable workyears:			
Full-time employment	509	503	(6)
Full-time equivalent of overtime and holiday hours	0	0	0
Average ES salary (in dollars)	\$165,000	\$165,000	\$0
Average GM/GS grade	12.1	12.2	0.1
Average GM/GS salary (in dollars)	\$97,814	\$98,429	\$615
Average salary, grade established by act of July 1, 1944 (42 U.S.C. 207) (in dollars)	\$102,763	\$102,763	\$0
Average salary of ungraded positions (in dollars)	102,667	102,667	0
OBJECT CLASSES	FY 2012 Enacted	FY 2013 PB	Increase or Decrease
Personnel Compensation:			
11.1 Full-time permanent	\$27,977	\$27,766	(\$211)
11.3 Other than full-time permanent	22,665	22,594	(71)
11.5 Other personnel compensation	1,687	1,688	1
11.7 Military personnel	547	554	7
11.8 Special personnel services payments	6,535	6,507	(28)
Total, Personnel Compensation	\$59,411	\$59,109	(\$302)
12.0 Personnel benefits	\$15,343	\$15,267	(\$76)
12.2 Military personnel benefits	357	355	(2)
13.0 Benefits for former personnel	0	0	0
Subtotal, Pay Costs	\$75,111	\$74,731	(\$380)
21.0 Travel and transportation of persons	\$3,778	\$3,778	\$0
22.0 Transportation of things	223	223	0
23.1 Rental payments to GSA	20	20	0
23.2 Rental payments to others	79	79	0
23.3 Communications, utilities and miscellaneous charges	866	866	0
24.0 Printing and reproduction	245	245	0
25.1 Consulting services	1,579	1,579	0
25.2 Other services	20,752	21,426	674
25.3 Purchase of goods and services from government accounts	137,230	150,236	13,006
25.4 Operation and maintenance of facilities	3,695	3,695	0
25.5 Research and development contracts	25,348	11,356	(13,992)
25.6 Medical care	539	539	0
25.7 Operation and maintenance of equipment	10,511	10,511	0
25.8 Subsistence and support of persons	0	0	0
25.0 Subtotal, Other Contractual Services	\$199,654	\$199,342	(\$312)
26.0 Supplies and materials	\$8,207	\$8,207	\$0
31.0 Equipment	9,346	9,346	0
32.0 Land and structures	0	0	0
33.0 Investments and loans	0	0	0
41.0 Grants, subsidies and contributions	1,326,900	1,327,870	970
42.0 Insurance claims and indemnities	0	0	0
43.0 Interest and dividends	0	0	0
44.0 Refunds	0	0	0
Subtotal, Non-Pay Costs	\$1,549,318	\$1,549,976	\$658
Total Budget Authority by Object	\$1,624,429	\$1,624,707	\$278

Includes FTEs which are reimbursed from the NIH Common Fund.

**NATIONAL INSTITUTES OF HEALTH National
Institute of Neurological Disorders and Stroke**

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

OBJECT CLASSES	FY 2012 Enacted	FY 2013 PB	Increase or Decrease
Personnel Compensation:			
Full-time permanent (11.1)	\$27,977	\$27,766	(\$211)
Other than full-time permanent (11.3)	22,665	22,594	(71)
Other personnel compensation (11.5)	1,687	1,688	1
Military personnel (11.7)	547	554	7
Special personnel services payments (11.8)	6,535	6,507	(28)
Total Personnel Compensation (11.9)	\$59,411	\$59,109	(\$302)
Civilian personnel benefits (12.1)	\$15,343	\$15,267	(\$76)
Military personnel benefits (12.2)	357	355	(2)
Benefits to former personnel (13.0)	0	0	0
Subtotal, Pay Costs	\$75,111	\$74,731	(\$380)
Travel (21.0)	\$3,778	\$3,778	\$0
Transportation of things (22.0)	223	223	0
Rental payments to others (23.2)	79	79	0
Communications, utilities and miscellaneous charges (23.3)	866	866	0
Printing and reproduction (24.0)	245	245	0
Other Contractual Services:			
Advisory and assistance services (25.1)	1,579	1,579	0
Other services (25.2)	20,752	21,426	674
Purchases from government accounts (25.3)	87,432	87,388	(44)
Operation and maintenance of facilities (25.4)	3,695	3,695	0
Operation and maintenance of equipment (25.7)	10,511	10,511	0
Subsistence and support of persons (25.8)	0	0	0
Subtotal Other Contractual Services	\$123,969	\$124,599	\$630
Supplies and materials (26.0)	\$8,166	\$8,166	\$0
Subtotal, Non-Pay Costs	\$137,326	\$137,956	\$630
Total, Administrative Costs	\$212,437	\$212,687	\$250

**NATIONAL INSTITUTES OF HEALTH National
Institute of Neurological Disorders and Stroke**

Details of Full-Time Equivalent Employment (FTEs)

OFFICE/DIVISION	FY 2011 Actual			FY 2012 Enacted			FY 2013 PB		
	Civilian	Military	Total	Civilian	Military	Total	Civilian	Military	Total
Office of the Director	51	0	51	51	0	51	51	0	51
Division of Extramural Research	87	0	87	87	0	87	86	0	86
Division of Intramural Research	338	4	342	338	4	342	333	4	337
Office of Translational Research	11	1	12	12	0	12	12	0	12
Office of Clinical Research	15		15	15	0	15	15		15
Office of Special Programs in Diversity	2	0	2	2	0	2	2	0	2
Total	504	5	509	505	4	509	499	4	503
Includes FTEs which are reimbursed from the NIH Common Fund.									
FTEs supported by funds from Cooperative Research and Development Agreements	0	0	0	0	0	0	0	0	0
FISCAL YEAR	Average GS Grade								
2009	11.8								
2010	12.1								
2011	12.1								
2012	12.1								
2013	12.2								

NATIONAL INSTITUTES OF HEALTH
National Institute of Neurological Disorders and Stroke

Detail of Positions

GRADE	FY 2011 Actual	FY 2012 Enacted	FY 2013 PB
Total, ES Positions	0	1	1
Total, ES Salary	0	165,000	165,000
GM/GS-15	35	35	35
GM/GS-14	50	50	50
GM/GS-13	79	79	79
GS-12	58	58	57
GS-11	34	34	32
GS-10	6	6	6
GS-9	27	27	27
GS-8	15	15	15
GS-7	6	6	6
GS-6	1	1	1
GS-5	1	1	1
GS-4	0	0	0
GS-3	1	1	1
GS-2	0	0	0
GS-1	0	0	0
Subtotal	313	313	310
Grades established by Act of July 1, 1944 (42 U.S.C. 207):			
Assistant Surgeon General	0	0	0
Director Grade	3	2	2
Senior Grade	1	1	1
Full Grade	1	1	1
Senior Assistant Grade	0	0	0
Assistant Grade	0	0	0
Subtotal	5	4	4
Ungraded	214	215	212
Total permanent positions	319	319	313
Total positions, end of year	527	528	522
Total full-time equivalent (FTE) employment, end of year	509	509	503
Average ES salary	0	165,000	165,000
Average GM/GS grade	12.1	12.1	12.2
Average GM/GS salary	97,814	97,814	98,429

Includes FTEs which are reimbursed from the NIH Common Fund.